



# **Economic Impact of the Nation's Historically Black Colleges and Universities**

**U.S. Department of Education**  
NCES 2007-178

## **Technical Report**

**October 2006**





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## Executive Summary

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There is widespread recognition within the academic community of the need to inform various constituencies of the economic value that colleges and universities convey to their host communities. This report examines data from the National Center for Education Statistics and U.S. Bureau of Labor Statistics to determine the short-term economic impact of Historically Black Colleges and Universities (HBCUs) on their regional economies. The economic impact analysis results help to document the economic roles that HBCUs play in their communities.

The Higher Education Act of 1965, as amended, defines an HBCU as: "...any historically black college or university that was established prior to 1964, whose principal mission was, and is, the education of black Americans." There are 103 HBCUs operating in the 50 states and the District of Columbia, and 101 are Title IV institutions. Many HBCUs are located in the South and are near areas with relatively low levels of economic well-being, where the generation of economic activity is particularly important.

The short-term economic impact of an HBCU is defined as the change in overall economic activity that is associated with HBCU-related spending. For each HBCU, economic impacts were estimated for four important categories of college/university-related expenditures: (1) spending by the institutions for wages and salaries, (2) spending by the institutions for other budget categories (e.g., outlays for items other than wages and salaries), (3) spending by undergraduate students who attended the institutions, and (4) spending by the graduate and professional students who attended the institutions.

The economic impact estimates are based on regional input-output models of each HBCU's regional economy. The IMPLAN (Impact Analysis for Planning) Professional Version 2.0 modeling system, developed by the Minnesota IMPLAN Group, Inc. (2003), was applied to the Integrated Postsecondary Education Data System (IPEDS) and Consumer Expenditure Survey data to calculate the economic impact of HBCUs within their region. IMPLAN was used to calculate four indicators of impact—total output, total value added, total labor income, and total employment—for each category of initial spending. In addition to providing impact results for calendar year 2001, the report includes templates that can easily be used to provide impact results for subsequent years as data are made available.

Some of the major findings from the analysis include:

- The combined initial spending of all 101 HBCUs in their host communities totaled \$6.6 billion. Public HBCUs accounted for 62 percent of this total amount while not-for-profit HBCUs accounted for the remaining 38 percent.
- The total economic impact of the nation's HBCUs was \$10.2 billion in 2001. The input-output model estimated that 65 percent of this total was initial spending by the institutions and students, while the remaining 35 percent was the induced/respending impact, or multiplier effect. To put that into perspective, it is interesting to note that in terms of output (revenues), the nation's HBCUs would rank 232<sup>nd</sup> on the Forbes Fortune 500 list of the United States' largest companies.

- The 101 HBCUs collectively generated a value-added (or gross regional product) impact of \$6 billion in 2001.
- Collectively, HBCUs generated a labor income impact of \$4 billion in 2001, including all forms of employment income, such as wages, salaries, and proprietors' incomes. The labor income received by residents of the communities that host one or more HBCUs represents 73 percent of the value-added impact and 66 percent of initial spending.
- The total employment impact of the 101 HBCU institutions included 180,142 total full- and part-time jobs in 2001. To put that into perspective, it is interesting to note that the rolled-up employment impact of the nation's HBCUs exceeds the 177,000 jobs at the Bank of America in 2006, which is the nation's 23<sup>rd</sup> largest private employer.
- Public 4-year HBCUs generated 105,482 jobs while public 2-year institutions generated 9,353 jobs. Among private, not-for-profit HBCUs, 4-year institutions generated 64,785 jobs while 2-year institutions generated 522 jobs.
- Because most HBCUs are located in large- to medium-sized metropolitan areas that have very diverse economic bases, their economic impacts typically constituted a small share of total

economic activity in their respective regional economies. There were some exceptions, however. For example, the 2,147 jobs that owe their existence to Tuskegee University accounted for 24 percent of total employment in its regional economy. Similarly, Fort Valley State University and Grambling State University accounted for 14 percent and 10 percent of the jobs in their regional economies, respectively. This overall finding is to be expected. In the United States, most regional economies no longer depend on a handful of large employers, but are extremely diversified.

All of these results quantify the important impacts that spending associated with the presence of an HBCU has on its host community. HBCUs create economic impacts in terms of output, value-added, labor income, and employment. Future research could be conducted to evaluate the many long-term impacts of HBCUs on the economic development of the host communities. For example, a college or university improves the skills of its graduates, thereby increasing their productivity and lifetime earnings. Additional research also could be conducted to measure short-term expenditures that were not estimated in this study, such as spending by visitors or retirees of HBCUs.

## Acknowledgments

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# 1. Introduction

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What is the short-term economic impact of college- or university-related spending on the communities that host institutions of higher education? In college and university towns across the nation, the economic impact of expenditures associated with institutions of higher education is a perennial question. The primary goal of this study is to answer this question for each of the nation's historically black colleges and universities (HBCUs). The economic impact analysis results will help HBCUs to document the economic roles that they play in their communities. The short-term economic impact of an HBCU is defined as the change in overall economic activity that is associated with HBCU-related spending. For each HBCU, economic impacts were estimated for four important categories of college/university-related expenditures: (1) spending by the institutions for wages and salaries, (2) spending by the institutions for other budget categories (e.g., outlays for items other than wages and salaries), (3) spending by undergraduate students who attended the institutions, and (4) spending by the graduate and professional students who attended the institutions.

The Higher Education Act of 1965, as amended, defines an HBCU as "...any historically black college or university that was established prior to 1964, whose principal mission was, and is, the education of black Americans." According to the President's Board of Advisors on Historically Black Colleges and Universities (2005), HBCUs were formed to eliminate the adverse residue from slavery, plus a century of legally sanctioned discrimination, against United States citizens of African descent. There are 103 HBCUs operating in the 50 states and the District of Columbia, and 101 are Title IV institutions. Many HBCUs are located in the South, and are near areas with relatively low levels of economic well-being, where the generation of economic activity is particularly important.

There has not been a comprehensive study of the economic impact of all of the nation's HBCUs on their host communities. The Thurgood Marshall Scholarship Fund (TMSF), which provides scholarship funds and other types of support to its 45 member public HBCUs, published what is probably the most complete overview of the economic impact of public HBCUs (Thurgood Marshall Scholarship Fund, 2001). The TMSF study provides estimates of direct spending associated with the 42 historically black undergraduate institutions that were members of the fund. Direct spending by member institutions and their students is reported, but dollar amounts are provided only for the group of 42 HBCUs as a whole rather than for the individual institutions. Also, because the focus of the TMSF study was on direct spending by the group, the multiplier effects of direct spending and the total economic impacts of each institution on its host

community were not reported. Nonetheless, the TMSF study concludes that “Through buying and spending together the students and the universities are a significant portion of the economic activity of the host communities. The impact is greatest felt in the more rural communities. However, the greatest spending is in the metropolitan communities.” In addition to the TMSF study, some studies of the economic impact of statewide university systems include estimates for member HBCUs. Examples include reports issued by the University System of Georgia (Humphreys 2000) and the University System of North Carolina (Luger 2001). Finally, HBCUs sometimes conduct their own independent economic impact studies, such as a recent study of the economic impact of the Morehouse School of Medicine in Atlanta (Fox and Noe 2003).

There is widespread recognition within the academic community of the need to inform various constituencies of the economic value that colleges and universities convey to their host communities. For example, in October 2000, the National Association of State Universities and Land-Grant Colleges (NASULGC) surveyed its members to gather data concerning their impact on state and local economies (NASULGC 2001). Within the previous 5 fiscal years (1996-2000), 10 statewide public university systems and 96 individual NASULGC institutions had conducted one or more economic impact studies. The reported impacts varied widely by institution, reflecting differences in size, activities, linkages with local businesses, and geographic location. Because the studies relied on varying methodologies and definitions, comparisons proved to be very difficult. Nonetheless, NASULGC concluded that state-supported institutions were powerful engines for economic stability and growth. On average, for every job on campus, another 1.6 jobs were generated beyond the campus.

The ability of colleges and universities to conduct economic impact studies was greatly enhanced by Caffrey and Issacs (1971), who, on behalf of the American Council of Education, standardized the methods used to estimate the short-term economic impacts of colleges and universities on their local economies. The simple linear cash flow formulas developed by Caffrey and Issacs are both easy to use and rely on readily available data. Since the publication of the Caffrey and Issacs “how-to-do-it” manual, researchers have developed much more elaborate economic base and input-output models. Stokes (1998) provides an overview of the various methods and practices that are commonly used to estimate the local economic impact of institutions of higher education.

Recognizing the need to document the economic impact that institutions of higher education have on their host communities, the National Center for Education Statistics (NCES) and the White House Initiative on Historically Black Colleges and Universities (HBCUs) have been working with the executive staff of the HBCUs to determine the short-term economic impact of an HBCU on its regional economy. As a part of this work, NCES conducted a training session with staff from 45 HBCUs in December 2002 to introduce the staff to the use of the NCES Integrated Postsecondary Education Data System (IPEDS) and to discuss the data elements

needed for calculating the economic impact of their institutions. The economic impact model that was adopted at this session was based on the work done for the University System of Georgia.<sup>1</sup> The economic impact multipliers used in the University System of Georgia study resulted from Impact Analysis for Planning (IMPLAN), an input-output database and modeling system that allows users to build economic models to estimate the economic impacts of changes in spending on a region's economy. These collaborative efforts to estimate the short-term economic impact of HBCUs were the genesis of this study.

The primary goal of this study is to estimate the short-term economic impact of each of the nation's HBCUs on its host community. More specifically, the objectives are (1) to apply the IMPLAN input-output modeling system to build regional models for each of the HBCUs in the 50 states and the District of Columbia and to calculate multipliers for estimating the impacts in terms of output, value-added, labor income, and employment, (2) to apply these multipliers to the appropriate IPEDS data in order to obtain estimates of the short-term economic impact of spending associated with each HBCU, and (3) to create a template that provides a relatively easy way for the executive staff of the nation's HBCUs to update the economic impact estimates once IPEDS data for 2002, 2003, and 2004 are released.

The economic impact estimates are based on regional input-output models of each HBCU's regional economy, data for 2001, as well as certain necessary assumptions. Data were obtained primarily from the NCES IPEDS, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and Minnesota IMPLAN Group (MIG), Inc. It should be noted that the IMPLAN model is designed to measure the total economic impact of college- or university-related spending on its host community, but if an HBCU were to close or otherwise cease to exist, economic activity might not drop as much as the model indicates. The net drop in economic activity might be less than indicated by the model because some spending might be directed toward other activities within the region. For example, in some communities, a portion of the displaced students might transfer to other colleges or universities within the region. Since it is extraordinarily difficult to predict such adjustments, the total rather than net economic impacts of HBCU-related spending are reported. Thus, the economic impact estimates should be considered an upper bound on the true economic impact of college- or university-related spending. This approach is consistent with the vast majority of studies of the economic impact of institutions of higher education that have been published.

It should be noted that the economic impact of a college or university on its host community can be defined broadly as the change in overall regional economic activity that is associated with the presence of the institution. The focus of this study is limited in that it estimates only the short-term economic impacts of spending associated with HBCUs. Institutions

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<sup>1</sup> The University of Georgia model was developed by the author of this report, Jeffrey Humphreys.

of higher education also convey long-term benefits on their local economies as well as other short-term benefits. After all, colleges and universities not only spend money year by year, but also have impacts on the labor force, local business and industry formation, local government, the productivity of their graduates, and the quality of life of residents of the host community.

Although most economic impact studies focus on the short-term economic impacts of college-related expenditures, methods have been developed to measure some of the long-term impacts on the economic development of the region in which colleges and universities are situated. Elliot, Levin, and Meisel (1988) provide a good discussion of how the scope of economic impact studies has broadened from spending impacts to include measures of the long-term impact of institutions of higher education on regional economic development. Long-term impacts include technology transfer programs, business assistance and recruitment programs, increased availability of skilled workers, and increased lifetime earnings of graduates. Although not within the purview of this study, the estimation of HBCUs' long-term impacts certainly merits further investigation.

One of the most important long-term economic benefits of higher education is the additional work-life earnings that can be associated with degrees granted by colleges and universities. In today's economy, a college degree can play a critical role in opening the door to economic prosperity (TMSF, 2001). Over a working lifetime, blacks with bachelor's degrees will earn 70 percent more than blacks with only high school diplomas (U.S. Census Bureau 2003). Blacks with an advanced degree will earn 57 percent more than those with bachelor's degrees. The U.S. Census Bureau also notes that the percentage gains in work-life earnings are higher for blacks than for whites. The higher lifetime earnings obviously benefit degree holders, but due to migration and a host of other factors there is controversy in the academic literature regarding whether or not increases in lifetime earnings should be included in estimates of the economic impact of a college or university on its host community (Brown and Heaney 1997).

Although not the focus of this study, cultural and educational programs and facilities often are available to the general public and provide intangible benefit to the host community by improving the residents' quality of life. This study does not attempt to evaluate the economic value of an HBCU's role as an amenity that makes its host community a more attractive place to live.

Finally, it should be noted that HBCUs convey substantial economic benefits not only to their host communities, but also to the national economy. For example, HBCUs' contribution to the nation's workforce is substantial. According to the National Science Foundation's analysis of NCES statistics, HBCUs conferred 23.6 percent of bachelor's degrees earned by blacks in 2001 (Hill and Johnson 2004). The contribution was even greater in the physical, mathematical, biological, and agricultural sciences, where HBCUs accounted for over 40 percent of bachelor's



degrees earned by blacks. Moreover, HBCUs conferred 13.1 percent and 10.6 percent of master's and doctoral degrees earned by blacks, respectively. These numbers are impressive given that HBCUs account for only 3 percent of the nation's institutions of higher education.

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## 2. Methodology

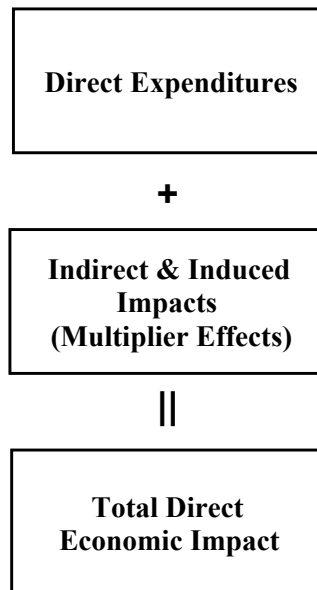
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### 2.1 The Concept of the Short-Term Economic Impact of an HBCU

The total annual economic impact of college- or university-related spending is defined to consist of the net changes in regional output, value-added, labor income, and employment that are due to initial spending by the institution, its faculty and staff, and its students. The total economic impact includes the impact of the initial round of spending and the secondary, or indirect and induced, spending—often referred to as the multiplier effect—created as the initial expenditures are respent. Figure 1 provides a schematic representation of impact relationships.

**Figure 1. Schematic representation of impact relationships**

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SOURCE: Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

There are two types of secondary spending: indirect spending and induced spending. Indirect spending refers to the changes in interindustry purchases as a region's industries respond to the additional demands triggered by spending by the HBCU, its faculty and staff, and its students. It consists of the ripples of activity that are created when an institution and its employees and students purchase goods or services from other industries located in the host community. Induced spending is similar to indirect spending except that it refers to the additional demand triggered by spending by the region's households as their income increases because of changes in production. Basically, the induced impact captures the ripples of activity that are created when households spend more because of the increases in their earnings generated by the direct and indirect spending.

The sum of the direct, indirect, and induced economic impacts is the total economic impact, often expressed in terms of output (sales, plus or minus inventory), value-added (gross regional product), income, or employment. Total industry output is gross receipts or sales, plus or minus inventory, or the value of production by industry (including households) for a given period of time. Total output impacts are the most inclusive, largest measures of economic impact. Because of their size, output impacts typically are emphasized in economic impact studies and receive much media attention. One problem with output as a measure of economic impact, however, is that it includes the value of inputs produced by other industries, which means that inevitably there is some double counting of economic activity. The other measures of economic impact (value-added, labor income, and employment) are free from double counting and provide a much more realistic measure of the true economic impact of HBCUs on their regional economies.

Value-added (or gross regional product) consists of employee compensation, proprietor income, other property income, and indirect business taxes. Value-added is equivalent to gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus intermediate inputs (consumption of goods and services purchased from industries or imported). It is often referred to as the state- or regional-level counterpart of the nation's gross domestic product (GDP).

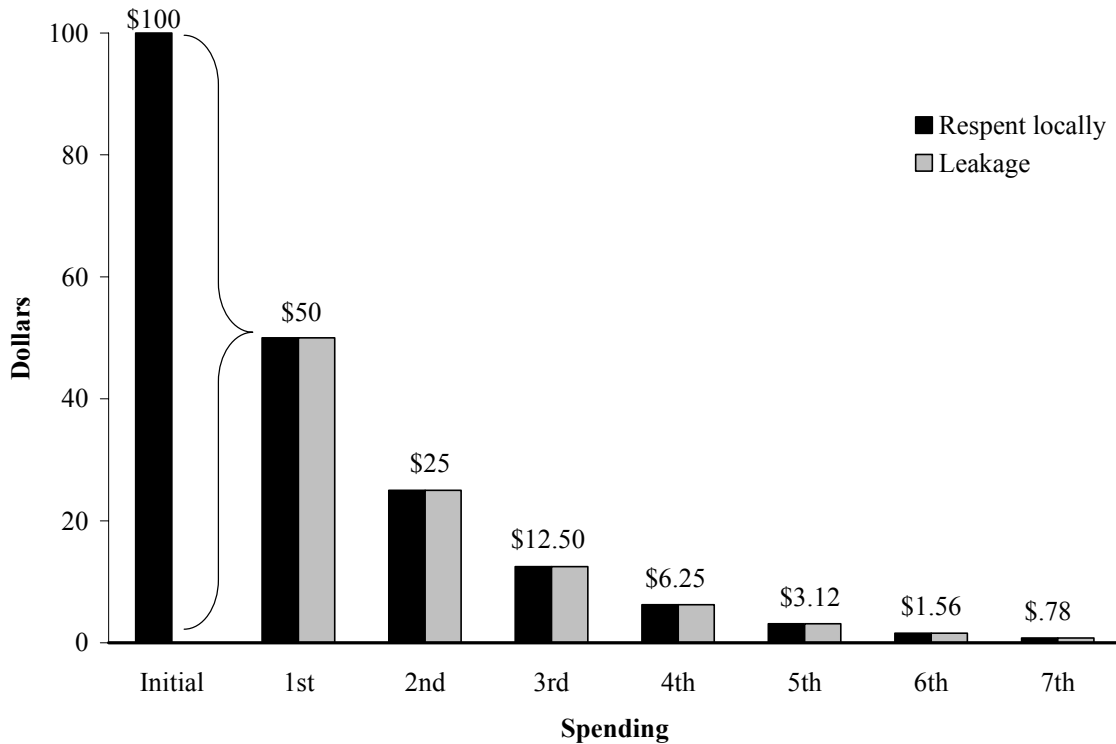
Income comprises all forms of employment income, including wages, salaries, and proprietors' incomes. It does not include nonwage compensation (e.g., pensions and health insurance), transfer payments (e.g., welfare or Social Security benefits), or unearned income (e.g., dividends, interest, and rent). Employment includes total wage and salary employees as well as self-employed individuals. It includes both full- and part-time jobs and is measured in annual average jobs. Employment therefore is expressed as the full- and part-time job count and not as full-time equivalents.

The regional economic areas are the host communities, including the surrounding counties from which employees and students commute. The effects of expenditures that go to persons, businesses, or governments located outside the regions are not included in the value-added, labor income, and employment impact estimates.

The multiplier concept is common to virtually all economic impact studies. Multipliers measure the response of the local economy to a change in demand or production. In essence, multipliers capture the impact of the initial round of spending (for final consumption) plus the impacts generated by successive rounds of respending of those initial dollars. The magnitude of a particular multiplier depends upon what proportion of each dollar spent leaves the region during each round of spending. Multipliers therefore are unique to the region and to the industry that receives the initial round of spending.

Figure 2 illustrates the successive rounds of spending that might take place if a person buys an item locally. Assume that the amount spent is \$100 and that the appropriate regional output multiplier is 2.0. The initial injection of spending to the region is \$100, which creates a direct economic impact of \$100 to the regional economy. Of that \$100, only \$50 is respent locally; the rest flows out of the region through nonlocal taxes, nonlocal purchases, and income transfers. After the first round of respending, the total economic impact to the region is \$150. During the second round of respending, \$25 is respent locally and \$25 leaks out of the region, a 50 percent leakage. Now, the total economic impact to the region is \$175. After seven rounds of respending, less than \$1 remains in the local economy, but the total economic impact has reached almost \$200. The indirect plus induced (multiplier effect) impact to the region (\$100) equals the total impact (\$200) minus the direct impact (\$100).

**Figure 2. How multipliers capture the impact of respending initial impacts if the output multiplier equals 2.0**



Initial Direct or Indirect Impact:	\$100.00	
First Round of Responding:	\$ 50.00 respent locally,	\$50.00 leakage*
Second Round of Responding:	\$ 25.00 respent locally,	\$25.00 leakage
Third Round of Responding:	\$ 12.50 respent locally;	\$12.50 leakage
Fourth Round of Responding:	\$ 6.25 respent locally;	\$ 6.25 leakage
Fifth Round of Responding:	\$ 3.12 respent locally;	\$ 3.12 leakage
Sixth Round of Responding:	\$ 1.56 respent locally;	\$ 1.56 leakage
Seventh Round of Responding:	\$ .78 respent locally;	\$ .78 leakage
<b>Total Economic Impact:</b>	<b>\$200.00</b>	<b>Total Leakage: \$100.00</b>

\*Leakage indicates amounts spent outside area and not recirculated locally.

SOURCE: Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

The multiplier traces the flows of respending that take place throughout the region until the initial dollars have completely leaked to other regions. Obviously, multiplier effects within large, self-sufficient areas are likely to be larger than those in small, rural, or specialized areas that are less able to capture spending for necessary goods and services. Multiplier effects also vary greatly from industry to industry, but in general, the greater the interaction with the local economy, the larger the multiplier for that industry. For example, personal services, business services, and entertainment industries have intricate relationships with local supporting industries, and therefore have relatively high multiplier values. Conversely, electric, gas, and sanitary services

usually are less intertwined with local supporting industries, and their multipliers are lower. Economic multipliers are model-based and depend on the specific spending patterns of the industry and applicable regional economies.

## **2.2 Identifying the Nation's HBCUs**

This study considers HBCUs to be accredited institutions of higher education established prior to 1964 with the principal mission of educating black Americans. On the basis of this definition, NCES provided the author with its current universe list of 105 active HBCUs. Three of these institutions—Knoxville College, Selma University, and Shorter College—were not Title IV eligible institutions. These institutions were excluded from further analysis because NCES does not report or impute the required data for non-Title IV institutions. The University of the Virgin Islands was excluded from further analysis because standard economic models and data were not available for the Virgin Islands. The remaining 101 HBCUs represent the current NCES universe of Title IV HBCUs that are located in the 50 states and the District of Columbia.

## **2.3 Analytic Approach**

Estimating the economic impact of the nation's 101 HBCUs on their regional economies involved four basic steps. First, the most recent IPEDS finance and employment data were allocated to industrial sectors recognized by the economic impact modeling system. Second, spending by undergraduate, graduate, and professional students was estimated and then allocated to industrial sectors recognized by the economic modeling system. Third, the IMPLAN Professional Version 2.0 Social Accounting and Impact Analysis Software was used to build regional economic models specific to each institution. IMPLAN is an economic impact assessment modeling system designed to estimate the economic impacts of expenditures on a regional economy.<sup>2</sup> Appendix A presents data on the economic impacts of HBCUs in 2001.

The templates were constructed to provide a relatively easy way to update the 2001 estimates using IPEDS data for 2002, 2003, and 2004. Appendix B contains the template for public HBCUs as well as instructions on its use. Appendix C contains the template for not-for-profit HBCUs as well as instructions on its use. Appendix D contains the template multipliers (as opposed to the economic multipliers reported in tables A-3 and A-4). The IPEDS provides all of the data that are needed by each institution to complete the template.

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<sup>2</sup> A detailed discussion of the IMPLAN modeling system, including its structure, methods, and use, can be found in *IMPLAN Professional Version 2.0: Users Guide, Analysis Guide, and Data Guide*. Once the economic models were generated, total economic impacts of all categories of initial spending were estimated.

The template multipliers in appendix D differ from the economic multipliers generated by IMPLAN modeling system (appendix tables A-3 and A-4) because the economic multipliers cannot be applied against initial spending as reported by IPEDS for two reasons. First, some of the initial spending amounts are reported in purchaser dollars and therefore must be converted by IMPLAN to producer dollars. This must be done because in input-output models (including IMPLAN), all expenditures must be allocated to industries that actually produce the goods or services that are purchased. As a result, any data received in purchaser (retail) prices need to be converted or allocated to the producing industries. Second, in some regional economies a local producer does not exist. This is especially relevant for the smaller regional economies. Those dollar amounts obviously do not have a local economic impact. In order to simplify the use of the templates, template multipliers for output, value added, and labor income were developed to account for these factors rather than reducing the reported dollar amounts. The template multipliers are simply the total economic impacts divided by initial spending. The employment multipliers are similar, but were further adjusted for inflation. Employment multipliers are expressed as jobs per million dollars of initial spending. Since the employment multipliers depend on the purchasing power of the dollar as of a specified base year, the template employment multipliers had to be adjusted to account for the decreasing purchasing power of the dollar (i.e., inflation) over time.

The geographic areas corresponding to the regional models that were built for the HBCUs, which include the labor forces directly involved in their economic spheres, are reported in appendix E. In most cases, these geographic areas are based on the standard metropolitan and micropolitan statistical area definitions released by the Executive Office of the President, Office of Management and Budget, on June 6, 2003. The geographic area of the regional model for each institution therefore takes into consideration population and commuting patterns from the 2000 Census.

Type SAM (Social Accounting Matrices) multipliers from the IMPLAN modeling system were used to estimate the economic impacts associated with all categories of spending. Type SAM multipliers capture the original expenditures resulting from the impact, the indirect effects of industries buying from industries, and the induced effects of household expenditures based on information in the social account matrix. The multipliers account for Social Security and income tax leakage, institutional savings, commuting, inter-institutional transfers, and people-to-people transfers.

Wherever appropriate, the IMPLAN software applied margins to convert purchaser prices to producer prices. In input-output models, all expenditures are in terms of producer prices, which allow all spending to be allocated to the industries that actually produce the good or service. The margins are derived from U.S. Bureau of Economic Analysis data. The margins used differed depending on the consumer. For example, households pay transportation, wholesale, and the full



retail margin. In contrast, HBCUs may pay little or no retail margin as they have typically more buying power than a household. In addition, some sectors of the model do not have margins. For example, because there usually are no wholesalers or retailers involved when someone rents a room, hotels and lodging do not have margins.

The model's default estimates of the local economy's regional purchase coefficients were used to derive the ratio of locally purchased to imported goods. The regional purchase coefficient represents the proportion of the total demands for a given commodity that is supplied by the region to itself. The regional purchase coefficients were estimated with an econometric equation that predicts local purchases based on each region's unique characteristics. In addition, the entire analysis was conducted using the full range of industrial sectors in order to avoid aggregation bias.

As do all regional models, IMPLAN must make assumptions about economic activity and therefore has some limitations. For example, the production function underlying the IMPLAN model assumes constant returns to scale and no substitution among inputs in producing each industry's output. Research has shown that this assumption is reasonable for most but not all cases. Also, the multipliers are best suited for analyzing the impact of changes in expenditures that are small relative to the size of the regional economy. This study defines the relevant region for each HBCU as the relevant commuting area rather than a specific county. Estimating the economic impact on an MSA or a combination of counties rather than on a single county should enhance the reliability of the impact estimates. It also should be noted that IMPLAN is a single-region model and cannot analyze feedback effects from nearby regions. Once again, calculating the impact on a combination of counties rather than a single county tends to internalize feedback effects, which increases the reliability of the impact estimates. Finally, the IMPLAN multipliers are a snapshot of the region at a specific time and implicitly assume that the infrastructure of the community does not change. Thus, the multipliers capture interactions and accounting relationships that may not hold in the future. For a more extensive discussion of these and other assumptions/limitations involved in input-output analysis see Bendavid-Val (1991), Miller and Blair (1985), and Minnesota IMPLAN Group (2003).

## **2.4 Initial Spending by the Institutions for Wages and Salaries**

Column 1 of tables A-1 and A-2 contains estimates of each institution's adjusted initial spending for salaries and wages and for all other institutional spending as well as estimates of the initial spending that can be attributed to the institution's undergraduate and graduate/professional students.

The primary data resource for institutional spending was IPEDS. Specifically, the IPEDS “Fall Staff” and “Finance” components provided all of the institution-level data regarding staffing and spending for wages and salaries. Fall Staff is conducted every other year, and the most recent one reported staffing levels for fall 2001. Finance is conducted every year, and the most recent data available at the time of this analysis reported expenditures for fiscal year (FY) 2001. Reported expenditures for wages and salaries were used as reasonable proxies for spending during calendar year 2001. Adjustments were made to take into account the substantial differences in accounting methods and reporting standards used by public versus not-for-profit institutions. To guard against the double counting of the same dollars, the employment totals from Fall Staff were reduced to exclude student employees who were classified as part-time instruction/research assistants. The spending (economic impact) associated with these student workers is captured by the estimates of students’ personal expenditures.

The analysis indicated that the IPEDS finance data for three institutions (Coahoma Community College, Jarvis Christian College, and Paul Quinn College) were internally inconsistent.<sup>3</sup> Since these inconsistencies could not be adequately resolved, initial spending for these institutions was imputed on the basis of reported employment levels, which appeared to be valid.

Each institution’s adjusted spending for wages and salaries was allocated to various economic sectors recognized by the IMPLAN software on the basis of the typical expenditure pattern for households of moderate income.

## **2.5 Initial Spending by the Institutions for Non-Wage and Salary Items**

IPEDS “Finance” also provided institution-level expenditure data for all other major categories of spending, including instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, transfers, hospitals (where applicable), independent organizations, and other expenditures.

There are substantial differences in the reporting and accounting methods used by public versus not-for-profit institutions, and data were selected taking these considerations into account. For example, capital expenditures from current funds are included for all institutions, and not-for-profit (but not public) institutions, capital expenditures other than from current funds are captured as an expense for depreciation. Beginning with FY 2002, public institutions were to start reporting depreciation. Also, to eliminate the potential for double counting, expenditures for auxiliary enterprises, scholarships, fellowships, and net grant aid to students were not included in

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<sup>3</sup> One possibility is that these colleges made some errors in entering their data.

initial spending. Spending associated with these budget items is largely accounted for in the spending amounts attributed to faculty, staff, and students. Auxiliary enterprises are essentially self-supporting operations of the institution that exist to furnish a service to students, faculty, or staff, and that charge a fee that is directly related to, although not necessarily equal to, the cost of service. Similarly, scholarships and fellowships transfer income to students, and students' spending of these funds is reflected in the amounts attributed to students' personal expenditures.

Since a detailed analysis of spending patterns that prevailed at 101 institutions in 2001 is not feasible, budgeted expenditures were allocated to various economic sectors on the basis of a typical expenditure (consumption) pattern for U.S. colleges and universities that was developed by the IMPLAN 2.0 modelers at MIG, Inc. This specific expenditure pattern was imported into the model from the IMPLAN Pro Library. The use of the same expenditure pattern for all institutions is a practical assumption that should work well for the average institution, but it does represent one limitation of this study.

## **2.6 Students' Personal Expenditures**

The students who attend an educational institution spend significant amounts of money in the local economy as a part of their living expenses, so the dollar value of this spending also was estimated. Since a detailed survey of students' spending habits in 2001 was not practical, typical expenditure levels per student and the pattern of spending by industry were estimated on the basis of data obtained from several sources: (1) the 2001 Consumer Expenditure Survey conducted by the U.S. Bureau of Labor Statistics (BLS), (2) a special BLS study that appeared in the July 2001 issue of the *Monthly Labor Review* that examined the expenditures of college-age students and nonstudents, and (3) a sample of the estimated costs of attendance prepared by individual institutions. Although the estimated costs of attendance prepared by individual institutions were not detailed enough to be used in the IMPLAN modeling system, they did provide information that was used to develop a profile of average expenditures for some of the items typically purchased by undergraduates, graduate students, and professional students. No distinctions in spending were made between students of the same level who attended not-for-profit, public, 2-year, or 4-year institutions. This is one limitation of this study.

The 2001 Consumer Expenditure Survey covers consumer units consisting of one person at various income levels, but no recent data are available specifically for college students; therefore, to adapt the data for this study, spending estimates for several categories of goods or services were increased, decreased, or eliminated. For example, compared to a weighted average of consumer units at lower income levels, students' expenditures for books and food consumed away from home were increased substantially, while students' expenditures for grocery stores, cash contributions, insurance and pensions, and health care were reduced. Because expenditures

for vacation and travel do not take place locally, such expenditures were eliminated entirely. After adjustment, the average local expenditure per undergraduate student per calendar year (2001) was estimated at \$10,165. Similarly, the average local expenditure per graduate or professional student was estimated at \$11,015. These amounts include spending for some items that were purchased locally by others (e.g., parents) who may pay landlords directly for their children's rent. It should be noted that these amounts do not include tuition and fees. The economic impact of economic activities supported through tuition and fees is already captured in the impact estimates attributed to spending by the institutions.

Students' expenditures were distributed to the IMPLAN sectoring scheme on the basis of national average expenditure patterns, data provided by the 2001 Consumer Expenditure Survey, and estimated costs of attendance prepared by a sampling of institutions. Part-time students were assumed to spend one-half the amount of full-time students, or \$5,083 per part-time undergraduate and \$5,508 per part-time graduate or professional student.

This chapter presented the theoretical framework for estimating the short-term total economic impact of 101 postsecondary institutions identified as HBCUs. It discussed the use of IMPLAN Professional Version 2.0 Social Accounting and Impact Analysis Software to create economic models for each of the HBCUs and it concluded with a description of the data sources used in the analysis, including IPEDS 2001 Fall Staff, IPEDS 2001 Finance, the 2001 Consumer Expenditure Survey from the Bureau of Labor Statistics (BLS), which appeared in the July 2001 *Monthly Labor Review*, and a sample of estimated costs of attendance prepared by individual institutions.

### 3. Results

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This section describes the economic benefits that the nation's HBCUs conveyed to their host communities in 2001. The estimates represent the economic impact of spending by an institution, its faculty and staff, and its students. Based on the methodology and available data described earlier, the IMPLAN modeling system was used to calculate four indicators of impact—total output, total value-added, total income, and total employment—for each category of initial spending. Since the IMPLAN modeling system estimates output as annual calendar year production, all estimates are for calendar year 2001, and all dollar amounts are reported in 2001 dollars. In addition to providing estimates for the total impact of all HBCUs, the data are presented by institution control (public and not-for-profit) and level (4-year and 2-year), as well as for individual HBCUs. However, the report does not make any explicit comparisons between public and not-for-profit HBCUs because each type of institution had different reporting categories for expenditures/expenses for the 2001 fiscal year.

#### 3.1 Initial Spending

For each HBCU, the initial spending accruing to the institution's regional economy is the combination of four types of spending—spending by the institutions for wages and salaries, spending by the institutions for other budget categories (e.g., outlays for items other than wages and salaries), spending by undergraduate students attending the institutions, and spending by the graduate and professional students attending the institutions. Estimates of initial spending for 2001 are reported in the first column of tables 1, A-1, and A-2.

In 2001, initial spending associated with the nation's 101 HBCUs totaled \$6.6 billion (table 1). This amount represents the combined initial spending of all 101 HBCUs in their host communities. The public HBCUs accounted for \$4.1 billion in initial spending, or 62 percent of the total amount. Not-for-profit HBCUs accounted for \$2.5 billion in initial spending, or 38 percent of the total amount. Four-year institutions had higher initial spending than 2-year institutions, regardless of institution control; 4-year institutions accounted for \$3.7 billion, or 91 percent of the total initial spending of public HBCUs and almost all (\$2.5 billion, or 99.5 percent) of the initial spending of not-for-profit HBCUs.

In order, the top 10 public HBCUs ranked by the amount of their initial spending were Florida Agricultural and Mechanical University (\$282 million), North Carolina Agricultural and

**Table 1. Total economic impact of Historically Black Colleges and Universities: 2001**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Total, all HBCUs.....</b>	6,586,057,262	10,203,483,464	5,985,463,969	4,354,347,146	180,142
<b>Total, public HBCUs .....</b>	4,081,662,228	6,234,870,707	3,677,396,481	2,651,532,106	114,835
4-year.....	3,728,960,463	5,726,254,106	3,375,986,850	2,446,338,541	105,482
2-year.....	352,701,765	508,616,601	301,409,631	205,193,565	9,353
<b>Total, not-for-profit HBCUs.....</b>	2,504,395,035	3,968,612,757	2,308,067,488	1,702,815,040	65,307
4-year.....	2,492,286,973	3,950,462,785	2,297,452,402	1,695,130,729	64,785
2-year.....	12,108,062	18,149,972	10,615,086	7,684,311	522

NOTE: Output refers to the value of total production, including domestic and foreign trade. Value-added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs.

SOURCE: Initial spending estimates: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2001. The impacts of spending on output, value-added, labor income, and employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and consumption functions provided by MIG, Inc. Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

Technical State University (\$187 million), Tennessee State University (\$178 million), Southern University and A&M College (\$176 million), Jackson State University (\$163 million), Texas Southern University (\$158 million), Morgan State University (\$148 million), Prairie View A&M University (\$140 million), Norfolk State University (\$125 million), and Alabama A&M University (\$125 million) (table A-1).

Ranked according to the amount of their initial spending, the top five not-for-profit HBCUs were Howard University (\$684 million), Hampton University (\$143 million), Tuskegee University (\$103 million), Clark Atlanta University (\$127 million), and Xavier University of Louisiana (\$97 million) (table A-2). Although they are separate institutions, the Morehouse School of Medicine and Morehouse College both impact the same geographic area. The combined impact of initial spending for Morehouse School of Medicine and Morehouse College was \$162 million.

### 3.2 Total Output Impact

The output impact was calculated for each category of initial spending, on the basis of the impact of the first round of spending and the impacts generated by the respending of these amounts—the multiplier effect. Total output impacts are the most inclusive, largest measures of economic impact. Conceptualized as the equivalent of business revenue, sales, or gross receipts,

total output is the value of production by all industries, including households. Output impacts for 2001 are reported in the second column of tables 1 and A-1 and A-2.

Measured in the simplest and broadest possible terms, the total economic impact of the nation's HBCUs was \$10.2 billion in 2001 (table 1). This amount represents the combined impact of all 101 HBCUs on the output of their host communities. To put this into perspective, it is interesting to note that in terms of output (revenues), the collective economic impact of HBCUs would rank 232<sup>nd</sup> on the Forbes Fortune 500 list of the United States' largest companies (Fortune Magazine 2006), just behind Winn-Dixie Stores and just ahead of PPG Industries. It is also worth noting that the output impact of the nation's 101 HBCUs exceeds that of the entire university system of Georgia, \$8.3 billion in 2001 (Duhart 2002), and Wisconsin in 2002, \$9.5 billion (Winters et al. 2002). It is smaller than the economic impact of the University of Texas System in 2004, \$12.8 billion (University of Texas at San Antonio 2004).

Of the 2001 total output impact, \$6.6 billion (65 percent) was initial spending by the institutions and students, while \$3.6 billion (35 percent) was the induced/responding impact or multiplier (i.e., the difference between output impact and initial spending). The multiplier captures the regional economic repercussions of the flows of responding that take place throughout the region until the initial spending has completely leaked to other regions.

The average output multiplier value for all HBCUs in 2001 was 1.55, obtained by dividing the total output impact (\$10.2 billion) by initial spending (\$6.6 billion). On average, therefore, every dollar of initial spending by an HBCU generated an additional 55 cents for the economy of the region hosting the institution. Thus, for all HBCUs combined, the output impact was 1.55 times greater than their initial spending. Tables A-3 and A-4 report the economic multipliers for each category of initial spending for public and not-for-profit institutions, respectively.

To test the reasonableness of the overall multiplier value of 1.55, a review of a number of recent studies of the economic impact of colleges and universities was conducted. The output multipliers used in the sample of economic impact studies ranged from a low of 1.41 to a high of 1.81. The average value was 1.61. Since an output multiplier of 1.55 falls close to the middle of this range, it was considered to be reasonable. More specifically, the studies reviewed and their corresponding overall output multiplier values were the following: The University of South Florida used a multiplier value of 1.41 (University of South Florida 2004); the University of Texas System used a multiplier value of 1.47 (University of Texas at San Antonio 2004); the University of Arizona used a multiplier value of 1.56 (Pavlovich-Kochi et al. 2005); the University of California at Berkeley used a multiplier value of 1.66 (Sedway Group 2001); the University of South Carolina System used a multiplier value of 1.74 (University of South Carolina 2000); and the University of Notre Dame used a multiplier value of 1.81 (Bay Area Economics 2003).

Public HBCUs with the 10 largest output impacts in 2001 were Florida Agricultural and Mechanical University (\$432 million), North Carolina Agricultural and Technical State University (\$298 million), Tennessee State University (\$289 million), Southern University and A&M College (\$267 million), Texas Southern University (\$254 million), Morgan State University (\$252 million), Jackson State University (\$249 million), Prairie View A&M University (\$231 million), Norfolk State University (\$194 million), and North Carolina Central University (\$178 million) (table A-1).

Among not-for-profit HBCUs, the institutions with the five largest output impacts were Howard University (\$1.2 billion), Hampton University (\$227 million), Clark Atlanta University (\$227 million), Meharry Medical College (\$173 million), and Xavier University of Louisiana (\$154 million). Although they are separate institutions, Morehouse School of Medicine and Morehouse College impact the same geographic area. Morehouse School of Medicine and Morehouse College together accounted for \$212 million in total output impact.

That the estimates for the HBCUs show differing economic impacts is not surprising, given the differences in budgets, staffing, enrollment, and regional economies. Institutions that operate in the largest metropolitan areas—where multipliers typically are highest, and that have the largest budgets, staffs, and enrollments—had the largest economic impacts. Thus, for the most part, institutions with large initial spending also tend to rank highly on the various indicators of economic impact, including value-added, labor income, and employment impact described in the subsections that follow.

### **3.3 Total Value-Added Impact**

Because value-added impacts exclude expenditures related to foreign and domestic trade, they provide a much more accurate measure of the actual economic benefits flowing to businesses and households in a region than the more inclusive output impacts. The value-added impacts for 2001 are reported in the third column of tables 1 and A-1 and A-2.

The 101 HBCUs collectively generated a value-added impact of \$6 billion in 2001, including the multiplier effects (table 1). For all institutions combined, the value-added impact represented 91 percent of initial spending and 59 percent of the \$10.2 billion output impact (with domestic and foreign trade comprising the remaining 41 percent of the output impact) (not shown in tables). As with other indicators of economic impact, 4-year HBCUs generated a larger share of value-added impact than did 2-year HBCUs, accounting for 92 percent of the \$3.4 billion in value-added impact for public HBCUs and almost all (99.5 percent) of the \$2.3 billion in total value-added impact for not-for-profit HBCUs.



The top 10 HBCUs ranked by the size of their value-added impacts in 2001 were Florida Agricultural and Mechanical University (\$259 million), North Carolina Agricultural and Technical State University (\$179 million), Tennessee State University (\$174 million), Southern University and A&M College (\$160 million), Morgan State University (\$158 million), Texas Southern University (\$156 million), Prairie View A&M University (\$142 million), Jackson State University (\$139 million), Norfolk State University (\$114 million), and North Carolina Central University (\$109 million) (table A-1).

Among private, not-for-profit HBCUs, the institutions that ranked in the top five according to the size of their value-added impact were Howard University (\$703 million), Hampton University (\$130 million), Clark Atlanta University (\$127 million), Meharry Medical College (\$103 million), and Xavier University of Louisiana (\$90 million) (table A-2). Although they are separate institutions, the Morehouse School of Medicine and Morehouse College both impact the same geographic area. The combined value-added impact of the Morehouse School of Medicine and Morehouse College was \$178 million.

### **3.4 Labor Income Impact**

The labor income received by residents of the communities that host one or more HBCUs includes all forms of employment income, such as wages, salaries, and proprietors' incomes. It does not include nonwage compensation (e.g., pensions and health insurance), transfer payments (e.g., welfare or Social Security benefits), or unearned income (e.g., dividends, interest, and rent). Labor income impacts for 2001 are reported in the fourth column of tables 1 and A-1 and A-2.

Collectively, HBCUs generated a labor income impact of \$4 billion in 2001, including multiplier effects (table 1). The labor income received by residents of the communities that host one or more HBCUs represents 73 percent of the value-added impact and 66 percent of initial spending. Regardless of institution control, 4-year HBCUs generated more in labor income impact than did 2-year HBCUs. Four-year public HBCUs generated \$2.4 billion in labor income impact while 2-year public HBCUs generated \$205 million. Among private, not-for-profit HBCUs, 4-year institutions generated \$1.7 billion while 2-year private HBCUs generated \$8 million in labor income impact.

Among public HBCUs, the 10 universities that had the largest labor income impacts were Florida Agricultural and Mechanical University (\$190 million), North Carolina Agricultural and Technical State University (\$131 million), Tennessee State University (\$126 million), Morgan State University (\$116 million), Southern University and A&M College (\$115 million), Texas Southern University (\$106 million), Jackson State University (\$101 million), Prairie View A&M

University (\$100 million), North Carolina Central University (\$80 million), and Alabama A&M University (\$78 million) (table A-1).

Among not-for-profit HBCUs, the institutions that ranked in the top five according to the size of their labor income impact were Howard University (\$542 million), Hampton University (\$94 million), Clark Atlanta University (\$92 million), Morehouse School of Medicine (\$80 million), and Xavier University of Louisiana (\$64 million) (table A-2). Although they are separate institutions, Morehouse School of Medicine and Morehouse College both impact the same geographic area. The combined labor income impact of Morehouse School of Medicine and Morehouse College was \$136 million.

### **3.5 Employment Impact**

The economic impact of hosting an HBCU probably is most easily understood in terms of its effects on employment, including wage and salary employees as well as self-employed individuals. Employment impacts for 2001 are reported in the fifth column of tables 1 and A-1 and A-2.

Collectively, HBCUs generated an employment impact of 180,142 full- and part-time jobs in 2001 (table 1). This collective or rolled-up employment impact of all 101 institutions on their host communities includes the jobs that are generated by the multiplier effects. To provide perspective, it is worth noting that the rolled-up employment impact of the nation's 101 HBCUs exceeds the 177,000 jobs at the Bank of America, which is the nation's 23rd largest private employer (Fortune Magazine 2006). The collective employment impact of the nation's 101 HBCUs on their host communities is nearly half that generated by the massive University of California System, which supported about 370,000 jobs in 2002 (ICF Consulting 2003).

As observed for initial spending and each of the measures of economic impact examined thus far, 4-year institutions generated a greater employment impact on their host communities than did 2-year institutions, regardless of institution control. Public 4-year HBCUs generated 105,482 jobs while public 2-year institutions generated 9,353 jobs in 2001. Among not-for-profit HBCUs, 4-year institutions generated 64,785 jobs while 2-year institutions generated 522 jobs.

The 10 public HBCUs with the largest employment impact in 2001 were Florida Agricultural and Mechanical University (6,818 jobs), Southern University and A&M College (5,607 jobs), North Carolina Agricultural and Technical State University (5,036 jobs), Tennessee State University (4,896 jobs), Morgan State University (4,745 jobs), Jackson State University (4,509 jobs), Texas Southern University (4,330 jobs), Norfolk State University (3,855 jobs),

Prairie View A&M University (3,715 jobs), and Alabama A&M University (3,482 jobs) (table A-1).

Among not-for-profit HBCUs, the five institutions that generated the most jobs in 2001 were Howard University (14,613 jobs), Hampton University (4,377 jobs), Meharry Medical College (2,974 jobs), Clark Atlanta University (2,672 jobs), and Xavier University of Louisiana (2,425 jobs) (table A-2). Although they are separate institutions, the Morehouse School of Medicine and Morehouse College both impact the same geographic area. The Morehouse School of Medicine and Morehouse College together generated 4,511 jobs.

Table A-5 reports the total employment impacts of HBCUs as a share of total employment in their regional economies. Because most HBCUs are located in large- to medium-sized metropolitan areas that have very diverse economic bases, their employment impacts typically constituted a small share of total employment in their respective regional economies. There were some exceptions, however. For example, the 2,147 jobs that owe their existence to Tuskegee University accounted for 24 percent of total employment in its regional economy. Similarly, Fort Valley State University and Grambling State University accounted for 14 percent and 10 percent of the jobs in their regional economies, respectively. This overall finding is to be expected. In the United States, most regional economies no longer depend on a handful of large employers, but are extremely diversified in terms of their employment bases.

Chapter 3 summarized the economic impact of HBCUs in the following areas: initial spending; total output impact, value-added impact, labor income impact, and employment impact. In each of these areas, 4-year HBCUs had a greater impact than 2-year HBCUs, regardless of institutional control. Generally, public HBCUs had a greater impact in each of the areas than not-for-profit HBCUs at both the 4-year and 2-year levels.

In 2001, initial spending from HBCUs was \$6.6 billion. Public HBCUs accounted for 62 percent of the initial spending of all HBCUs. The total output impact of HBCUs in 2001 was \$10.2 billion: \$6.6 billion from initial spending by institutions and states and \$3.6 billion from induced or respending. The average multiplier value for all HBCUs, calculated by dividing the total output impact by initial spending, was 1.55. This suggests that for every dollar of initial spending by an HBCU, an additional 55 cents entered the region that housed the HBCU. The value-added impact of HBCUs in 2001 was \$6 billion, while the labor income impact was \$4 billion. Finally, HBCUs generated 180,142 full-time and part-time jobs. All of these results demonstrate the important economic impact that HBCUs have on regional economies.

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## 4. Summary

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This report examines data from the NCES to determine the short-term economic impact of HBCUs on their regional economies. The short-term economic impact of an HBCU is defined as the change in overall economic activity that is associated with HBCU-related spending. For each HBCU, economic impacts were estimated for four important categories of college/university-related expenditures: (1) spending by the institutions for wages and salaries, (2) spending by the institutions for other budget categories (e.g., outlays for items other than wages and salaries), (3) spending by undergraduate students who attended the institutions, and (4) spending by the graduate and professional students who attended the institutions.

The main finding of this study is that spending associated with the presence of HBCUs creates economic impacts in terms of output, value-added, labor income, and employment for their host communities. The combined economic impact of the nation's 101 HBCUs on their host communities in 2001 includes

- \$10.2 billion in output (sales),
- \$6.0 billion in value-added (gross regional product),
- \$4.4 billion in labor income, and
- 180,142 full- and part-time jobs.

These economic impacts are significant. For example, in terms of output (revenues), the nation's HBCUs would rank 232<sup>nd</sup> on the Forbes Fortune 500 list of the United States largest companies. The total employment impact of the 101 HBCU institutions exceeds the 177,000 jobs at the Bank of America, which is the nation's 23<sup>rd</sup> largest private employer. Because most HBCUs are located in large- to medium-sized metropolitan areas that have very diverse economic bases, their economic impacts typically constituted a small share of total economic activity in their respective regional economies. This overall finding is to be expected. In the United States, most regional economies no longer depend on a handful of large employers, but are extremely diversified in terms of their economic bases. There were some exceptions, however. For example, the 2,147 jobs that owe their existence to Tuskegee University accounted for 24 percent of total employment in its regional economy. Similarly, Fort Valley State University and Grambling State

University accounted for 14 percent and 10 percent of the jobs in their regional economies, respectively.

This study also demonstrates how the NCES Integrated Postsecondary Education Data System can be used in conjunction with regional economic models to estimate the economic impacts of an HBCU on its regional economy. Templates are provided in the appendices that accompany the report and provide a relatively easy way to update the economic impact estimates once IPEDS data for 2002, 2003, and 2004 are released.

Since this study intentionally focused only on the short-term impacts of several types of HBCU-related spending, no attempt was made to evaluate the long-term impacts of HBCUs on their host communities. After all, HBCUs not only spend money year by year, but also have long-term impacts on the labor force, local business and industry, and local government. A college or university improves the skills of its graduates, thereby increasing their productivity and their lifetime earnings. Local businesses benefit from easy access to an enlarged pool of part-time and full-time workers. The outreach and service units of the college or university provide valuable services to local businesses and households. Although not within the purview of this study, the estimation of HBCUs' long-term impacts merits further investigation.

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## **Appendix A**

### **Tables**

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**Table A-1. Total economic impact of public Historically Black Colleges and Universities: 2001**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Total, public HBCUs .....</b>	4,081,662,228	6,234,870,707	3,677,396,481	2,651,532,106	114,835
<b>Total, 4-year .....</b>	3,728,960,463	5,726,254,106	3,375,986,850	2,446,338,541	105,482
<b>Alabama A &amp; M University .....</b>	125,018,796	182,827,868	104,868,303	77,504,519	3,482
Wages and salaries .....	41,140,382	89,558,827	59,159,670	50,894,751	2,297
Other institutional spending .....	28,799,834	34,018,239	10,137,076	7,104,063	220
Undergraduate students .....	45,666,263	48,903,147	29,347,467	16,042,470	798
Graduate/professional students .....	9,412,318	10,347,655	6,224,090	3,463,235	167
<b>Alabama State University .....</b>	106,766,164	161,178,906	94,538,313	67,976,579	3,366
Wages and salaries .....	33,349,263	74,635,428	50,056,828	42,725,477	2,202
Other institutional spending .....	22,591,618	27,148,664	8,518,850	5,700,179	186
Undergraduate students .....	44,959,795	52,401,420	31,723,581	17,209,945	864
Graduate/professional students .....	5,865,488	6,993,394	4,239,054	2,340,978	114
<b>Albany State University .....</b>	65,778,590	96,317,312	55,483,872	39,876,722	2,031
Wages and salaries .....	19,841,099	43,850,149	29,188,972	25,045,244	1,342
Other institutional spending .....	15,059,223	17,582,468	4,994,434	3,315,026	110
Undergraduate students .....	27,821,605	31,361,070	19,147,218	10,333,061	521
Graduate/professional students .....	3,056,663	3,523,625	2,153,248	1,183,391	58
<b>Alcorn State University .....</b>	73,984,968	99,234,501	51,088,678	35,836,196	2,347
Wages and salaries .....	17,910,839	37,882,924	24,308,751	21,167,480	1,657
Other institutional spending .....	27,712,321	31,359,236	8,522,498	5,066,530	187
Undergraduate students .....	24,456,990	25,789,923	15,695,314	8,230,898	433
Graduate/professional students .....	3,904,818	4,202,418	2,562,115	1,371,288	70
<b>Bluefield State College .....</b>	39,891,908	56,535,628	32,751,375	22,419,878	1,197
Wages and salaries .....	9,721,717	21,505,759	14,257,366	12,249,850	679
Other institutional spending .....	6,958,413	8,370,806	2,612,084	1,658,135	60
Undergraduate students .....	23,211,778	26,659,063	15,881,925	8,511,893	458
Graduate/professional students .....	†	†	†	†	†
<b>Bowie State University .....</b>	86,518,276	137,485,530	86,697,333	62,255,480	2,228
Wages and salaries .....	26,924,519	62,315,677	43,247,441	36,549,950	1,437
Other institutional spending .....	17,520,112	23,121,093	10,129,981	6,888,921	144
Undergraduate students .....	31,394,603	38,605,179	24,699,809	13,886,046	481
Graduate/professional students .....	10,679,043	13,443,581	8,620,102	4,930,563	166
<b>Central State University .....</b>	47,695,754	72,683,106	40,165,755	30,277,780	1,332
Wages and salaries .....	15,022,242	33,782,059	22,752,382	19,502,098	941
Other institutional spending .....	19,376,294	23,714,635	8,068,413	5,624,475	159
Undergraduate students .....	12,818,065	14,625,516	8,999,430	4,957,338	223
Graduate/professional students .....	479,153	560,896	345,530	193,869	9

(See notes at end of table.)

**Table A-1. Total economic impact of public Historically Black Colleges and Universities: 2001—Continued**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Cheyney University of PA.....</b>	40,023,931	69,225,568	42,524,185	30,904,375	1,045
Wages and salaries .....	12,945,970	31,572,280	22,077,505	18,412,615	694
Other institutional spending .....	13,656,253	19,920,990	9,262,311	6,151,040	134
Undergraduate students .....	11,461,038	15,085,665	9,514,545	5,381,229	185
Graduate/professional students.....	1,960,670	2,646,633	1,669,824	959,491	32
<b>Coppin State College.....</b>	66,565,369	104,644,218	63,858,111	44,590,243	1,913
Wages and salaries .....	16,283,933	38,666,756	26,879,191	22,603,383	1,165
Other institutional spending .....	17,316,868	23,781,049	10,387,022	7,007,700	173
Undergraduate students .....	28,558,568	36,438,726	22,958,116	12,902,468	497
Graduate/professional students.....	4,406,000	5,757,687	3,633,782	2,076,692	78
<b>Delaware State University .....</b>	78,806,716	119,687,673	68,808,551	52,547,102	2,110
Wages and salaries .....	31,716,645	68,134,973	44,432,114	38,669,353	1,493
Other institutional spending .....	17,247,231	19,541,253	4,849,164	3,445,723	116
Undergraduate students .....	27,887,678	29,870,708	18,225,262	9,725,274	468
Graduate/professional students.....	1,955,163	2,140,739	1,302,011	706,752	33
<b>Elizabeth City State University .....</b>	48,778,580	72,812,280	41,844,906	31,231,151	1,419
Wages and salaries .....	18,351,801	39,539,290	25,648,310	22,245,810	998
Other institutional spending .....	11,299,596	12,897,823	3,713,740	2,312,155	78
Undergraduate students .....	18,972,973	20,206,791	12,379,540	6,616,886	340
Graduate/professional students.....	154,210	168,376	103,316	56,300	3
<b>Fayetteville State University.....</b>	86,170,907	121,531,899	68,322,752	48,476,299	2,372
Wages and salaries .....	23,594,652	51,216,312	33,392,637	28,829,376	1,459
Other institutional spending .....	19,714,807	22,821,670	6,095,731	4,218,558	147
Undergraduate students .....	36,924,363	40,789,337	24,759,972	13,212,715	658
Graduate/professional students.....	5,937,085	6,704,580	4,074,412	2,215,650	108
<b>Florida Agricultural &amp; Mechanical.....</b>	281,514,526	431,890,891	258,731,192	190,071,535	6,818
Wages and salaries .....	96,677,042	214,837,680	145,689,666	124,170,412	4,464
Other institutional spending .....	67,316,209	82,613,297	28,777,522	20,005,259	573
Undergraduate students .....	103,510,195	118,079,665	73,998,786	40,212,858	1,565
Graduate/professional students.....	14,011,080	16,360,249	10,265,218	5,683,006	216
<b>Fort Valley State University .....</b>	62,818,113	89,465,420	49,503,218	38,938,290	1,470
Wages and salaries .....	27,831,688	57,081,136	34,834,137	30,974,193	1,071
Other institutional spending .....	12,045,602	12,699,797	2,114,463	1,533,773	53
Undergraduate students .....	20,919,570	17,893,161	11,423,445	5,839,614	315
Graduate/professional students.....	2,021,253	1,791,326	1,131,173	590,710	31

(See notes at end of table.)

Table A-1. Total economic impact of *public* Historically Black Colleges and Universities: 2001—Continued

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Grambling State University</b> .....	90,856,646	131,164,567	73,652,066	54,681,442	3,047
Wages and salaries .....	31,840,605	67,923,913	42,972,240	37,800,049	2,093
Other institutional spending .....	15,575,731	17,742,724	3,710,299	2,543,595	97
Undergraduate students .....	39,552,015	41,337,241	24,507,618	13,005,756	779
Graduate/professional students.....	3,888,295	4,160,689	2,461,909	1,332,042	78
<b>Harris-Stowe State College</b> .....	29,143,530	49,745,617	30,546,161	21,866,666	869
Wages and salaries .....	9,427,989	23,012,843	15,940,336	13,282,629	571
Other institutional spending .....	6,389,226	9,189,223	3,791,640	2,533,213	65
Undergraduate students .....	13,326,315	17,543,551	10,814,185	6,050,824	233
Graduate/professional students.....	†	†	†	†	†
<b>Jackson State University</b> .....	163,332,085	248,978,658	139,180,044	101,498,047	4,509
Wages and salaries .....	51,213,595	114,777,134	76,307,149	65,297,293	2,990
Other institutional spending .....	47,385,005	59,096,663	17,313,248	11,588,257	377
Undergraduate students .....	54,291,265	62,757,926	38,059,793	20,496,930	956
Graduate/professional students.....	10,442,220	12,346,935	7,499,854	4,115,567	186
<b>Kentucky State University</b> .....	63,758,721	88,364,521	45,659,006	35,778,700	1,857
Wages and salaries .....	23,475,901	48,274,620	30,225,109	26,883,923	1,413
Other institutional spending .....	19,671,285	20,608,806	3,524,516	2,651,229	90
Undergraduate students .....	19,465,975	18,374,444	11,232,110	5,880,919	334
Graduate/professional students.....	1,145,560	1,106,651	677,271	362,629	20
<b>Langston University</b> .....	46,552,179	71,744,763	42,667,782	28,882,265	1,659
Wages and salaries .....	10,810,732	25,418,196	17,330,031	14,548,975	1,029
Other institutional spending .....	9,464,747	13,146,212	5,278,408	3,362,630	112
Undergraduate students .....	25,615,800	32,327,707	19,542,739	10,683,299	505
Graduate/professional students.....	660,900	852,648	516,604	287,361	13
<b>Lincoln University (MO)</b> .....	61,639,178	85,909,195	48,625,389	34,643,990	1,630
Wages and salaries .....	17,465,822	37,969,362	25,254,505	21,733,995	1,042
Other institutional spending .....	16,435,271	18,581,985	5,270,294	3,276,463	101
Undergraduate students .....	26,449,330	27,962,305	17,239,891	9,166,601	464
Graduate/professional students.....	1,288,755	1,395,543	860,699	466,931	23
<b>Lincoln University (PA)</b> .....	47,010,258	80,814,466	50,171,181	36,193,995	1,459
Wages and salaries .....	15,015,704	36,619,892	25,607,142	21,356,329	1,029
Other institutional spending .....	13,692,714	19,974,178	9,287,041	6,167,462	134
Undergraduate students .....	14,419,053	18,979,171	11,970,184	6,770,088	232
Graduate/professional students.....	3,882,788	5,241,225	3,306,814	1,900,116	64
<b>Mississippi Valley State University</b> .....	56,638,747	75,378,161	40,118,541	28,655,973	1,666
Wages and salaries .....	15,126,198	31,691,308	19,898,332	17,528,872	1,091
Other institutional spending .....	14,691,106	16,221,697	3,653,182	2,465,937	93
Undergraduate students .....	24,304,515	24,891,146	15,004,362	7,834,088	437
Graduate/professional students.....	2,516,928	2,574,010	1,562,665	827,076	45

(See notes at end of table.)

**Table A-1. Total economic impact of public Historically Black Colleges and Universities: 2001—Continued**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Morgan State University</b> .....	148,369,922	251,761,699	157,984,640	115,840,395	4,745
Wages and salaries .....	53,733,928	127,593,046	88,696,294	74,586,926	3,348
Other institutional spending .....	33,720,634	46,308,145	20,226,346	13,645,891	337
Undergraduate students .....	56,481,823	72,066,836	45,405,507	25,517,907	982
Graduate/professional students.....	4,433,538	5,793,672	3,656,493	2,089,671	78
<b>NC Agricultural &amp; Technical St Univ</b> .....	186,740,046	297,741,472	179,465,761	131,365,999	5,036
Wages and salaries .....	65,687,320	150,983,314	103,587,097	87,398,660	3,316
Other institutional spending .....	42,195,213	52,556,572	17,739,052	12,097,402	347
Undergraduate students .....	70,921,205	84,523,137	52,152,204	28,534,242	1,233
Graduate/professional students.....	7,936,308	9,678,449	5,987,408	3,335,695	140
<b>Norfolk State University</b> .....	124,967,530	194,201,271	113,663,653	79,842,525	3,855
Wages and salaries .....	33,532,747	78,082,336	52,914,446	44,674,654	2,390
Other institutional spending .....	31,313,678	41,216,504	15,425,586	10,191,327	317
Undergraduate students .....	54,519,978	67,770,353	41,007,674	22,561,993	1,039
Graduate/professional students.....	5,601,128	7,132,078	4,315,947	2,414,551	109
<b>North Carolina Central University</b> .....	115,381,235	177,746,267	108,689,587	80,482,945	3,128
Wages and salaries .....	44,403,430	97,894,378	66,359,107	56,639,796	2,160
Other institutional spending .....	20,035,645	23,380,005	7,325,379	4,881,175	134
Undergraduate students .....	38,754,063	42,725,268	26,469,417	14,268,522	633
Graduate/professional students.....	12,188,098	13,746,616	8,535,684	4,693,452	201
<b>Prairie View A &amp; M University</b> .....	139,578,745	230,614,578	142,395,288	99,511,924	3,715
Wages and salaries .....	40,654,361	95,554,315	65,662,042	54,825,340	2,358
Other institutional spending .....	36,761,509	55,244,606	26,047,602	16,550,820	364
Undergraduate students .....	52,232,853	66,810,880	42,423,108	23,483,785	832
Graduate/professional students.....	9,930,023	13,004,777	8,262,536	4,651,979	161
<b>Savannah State University</b> .....	54,496,281	90,081,697	55,111,954	41,507,090	1,548
Wages and salaries .....	23,605,826	53,154,158	36,010,097	30,589,804	1,109
Other institutional spending .....	11,015,527	13,531,628	4,520,645	2,959,833	88
Undergraduate students .....	18,988,220	22,329,397	13,913,701	7,586,494	335
Graduate/professional students.....	886,708	1,066,514	667,511	370,959	16
<b>South Carolina State University</b> .....	102,356,462	144,312,444	78,204,021	58,742,192	2,575
Wages and salaries .....	34,462,302	72,735,577	46,074,753	40,731,879	1,679
Other institutional spending .....	27,464,062	30,784,728	7,389,700	4,828,151	187
Undergraduate students .....	33,727,470	33,886,744	20,553,603	10,912,345	590
Graduate/professional students.....	6,702,628	6,905,395	4,185,965	2,269,817	119
<b>Southern Univ. and A &amp; M College</b> .....	176,114,297	267,368,939	159,999,371	114,663,797	5,607
Wages and salaries .....	57,011,717	126,924,650	85,023,643	72,641,633	3,845
Other institutional spending .....	34,034,215	42,710,122	15,398,774	9,779,591	297
Undergraduate students .....	72,191,830	82,647,294	50,390,631	27,196,567	1,239
Graduate/professional students.....	12,876,535	15,086,873	9,186,323	5,046,006	226

(See notes at end of table.)



**Table A-1. Total economic impact of public Historically Black Colleges and Universities: 2001—Continued**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Southern University New Orleans .....</b>	58,312,245	90,513,045	55,660,525	38,535,841	1,794
Wages and salaries .....	16,836,415	38,733,014	26,373,011	22,240,294	1,147
Other institutional spending .....	8,423,392	11,377,510	4,321,710	2,667,833	78
Undergraduate students .....	27,902,925	33,984,422	21,000,911	11,432,503	479
Graduate/professional students.....	5,149,513	6,418,099	3,964,893	2,195,211	90
<b>Tennessee State University .....</b>	178,142,689	289,290,460	173,962,704	125,660,068	4,896
Wages and salaries .....	54,003,669	127,884,553	88,480,381	74,468,631	3,150
Other institutional spending .....	46,085,705	62,025,641	23,407,413	16,406,822	432
Undergraduate students .....	66,509,595	84,389,369	52,694,973	29,454,101	1,117
Graduate/professional students.....	11,543,720	14,990,897	9,379,937	5,330,514	197
<b>Texas Southern University .....</b>	157,543,237	254,074,982	155,567,596	106,747,031	4,330
Wages and salaries .....	39,628,319	93,142,704	64,004,854	53,441,651	2,709
Other institutional spending .....	43,276,395	65,035,075	30,663,767	19,483,963	429
Undergraduate students .....	60,649,473	77,576,552	49,259,019	27,267,880	966
Graduate/professional students.....	13,989,050	18,320,651	11,639,956	6,553,537	226
<b>University of Arkansas at Pine Bluff ...</b>	73,578,259	102,887,360	56,160,779	40,499,522	2,133
Wages and salaries .....	21,873,386	46,752,064	30,471,140	26,444,761	1,440
Other institutional spending .....	21,739,145	24,250,628	6,383,456	3,895,423	139
Undergraduate students .....	29,381,933	31,250,178	18,921,593	9,952,990	543
Graduate/professional students.....	583,795	634,490	384,590	206,348	11
<b>University of the District of Columbia..</b>	118,534,105	204,173,628	129,063,244	97,938,103	3,038
Wages and salaries .....	51,296,000	118,722,451	82,394,069	69,634,155	2,220
Other institutional spending .....	30,083,195	39,700,453	17,393,850	11,828,735	248
Undergraduate students .....	35,023,508	43,067,554	27,554,861	15,491,135	537
Graduate/professional students.....	2,131,403	2,683,170	1,720,464	984,078	33
<b>University of DC Clarke School of Law ..</b>	5,856,600	10,629,231	6,811,194	5,301,033	159
Wages and salaries .....	3,005,152	6,955,299	4,827,018	4,079,484	125
Other institutional spending .....	1,386,453	1,829,686	801,635	545,154	11
Undergraduate students .....	†	†	†	†	†
Graduate/professional students.....	1,464,995	1,844,246	1,182,541	676,395	23
<b>University of Maryland-Eastern Shore ...</b>	75,834,683	118,598,634	69,786,119	50,840,089	2,392
Wages and salaries .....	26,270,146	59,366,971	40,085,802	34,131,454	1,667
Other institutional spending .....	18,847,757	22,988,584	7,602,966	4,774,051	152
Undergraduate students .....	28,106,225	33,098,817	20,182,621	10,884,057	524
Graduate/professional students.....	2,610,555	3,144,262	1,914,730	1,050,527	49

(See notes at end of table.)

**Table A-1. Total economic impact of public Historically Black Colleges and Universities: 2001—Continued**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Virginia State University .....</b>	96,896,534	145,998,379	85,556,762	60,203,273	2,754
Wages and salaries .....	24,802,269	56,840,622	38,978,719	32,841,401	1,767
Other institutional spending .....	30,017,147	38,435,375	14,973,992	10,001,930	265
Undergraduate students .....	37,478,355	45,061,129	28,072,003	15,389,014	642
Graduate/professional students.....	4,598,763	5,661,253	3,532,048	1,970,928	80
<b>West Virginia State College.....</b>	81,054,718	107,733,257	57,926,595	39,166,056	2,028
Wages and salaries .....	15,122,825	32,984,007	21,871,856	18,932,513	1,078
Other institutional spending .....	25,622,585	30,557,442	9,301,250	5,945,157	191
Undergraduate students .....	40,309,308	44,191,808	26,753,489	14,288,386	759
Graduate/professional students.....	†	†	†	†	†
<b>Winston-Salem State University</b>	65,938,943	100,906,015	60,170,343	44,383,431	1,923
Wages and salaries .....	23,436,503	52,162,834	35,529,687	30,318,296	1,332
Other institutional spending .....	14,870,092	17,483,113	5,228,675	3,550,021	105
Undergraduate students .....	27,384,510	30,973,234	19,233,857	10,416,932	482
Graduate/professional students.....	247,838	286,834	178,124	98,182	4
<b>Total, 2-year .....</b>	352,701,765	508,616,601	301,409,631	205,193,565	9,353
<b>Bishop State Community College.....</b>	58,314,799	84,437,451	49,861,659	33,311,978	1,651
Wages and salaries .....	12,992,871	29,409,847	19,789,359	16,759,101	900
Other institutional spending .....	10,074,790	13,088,054	4,638,742	2,877,936	89
Undergraduate students .....	35,247,138	41,939,550	25,433,558	13,674,941	662
Graduate/professional students.....	†	†	†	†	†
<b>Coahoma Community College .....</b>	23,225,698	31,509,881	17,802,555	12,566,454	623
Wages and salaries .....	6,364,218	13,542,760	8,771,315	7,662,564	367
Other institutional spending .....	4,343,282	4,860,495	1,131,078	741,654	27
Undergraduate students .....	12,518,198	13,106,626	7,900,162	4,162,236	229
Graduate/professional students.....	†	†	†	†	†
<b>Denmark Technical College .....</b>	19,284,228	22,775,653	12,296,989	8,316,051	478
Wages and salaries .....	4,011,180	8,212,258	5,034,390	4,502,741	223
Other institutional spending .....	3,654,453	3,883,149	818,783	501,348	21
Undergraduate students .....	11,618,595	10,680,246	6,443,816	3,311,962	234
Graduate/professional students.....	†	†	†	†	†
<b>Gadsden State Community College .....</b>	76,749,447	101,780,712	59,471,678	39,309,395	2,042
Wages and salaries .....	14,781,885	32,324,160	21,249,854	18,364,208	985
Other institutional spending .....	10,542,827	12,257,433	3,518,413	2,317,614	77
Undergraduate students .....	51,424,735	57,199,119	34,703,411	18,627,573	980
Graduate/professional students.....	†	†	†	†	†

(See notes at end of table.)

**Table A-1. Total economic impact of public Historically Black Colleges and Universities: 2001—Continued**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>J F Drake State Technical College .....</b>	9,974,961	13,973,178	8,139,709	5,863,827	262
Wages and salaries .....	2,923,178	6,363,489	4,203,516	3,616,262	156
Other institutional spending .....	1,760,900	2,079,967	619,808	434,362	14
Undergraduate students .....	5,290,883	5,529,722	3,316,385	1,813,203	92
Graduate/professional students.....	†	†	†	†	†
<b>Lawson State Community College .....</b>	27,806,990	40,860,071	24,783,749	17,013,737	795
Wages and salaries .....	7,061,955	16,015,813	10,920,113	9,231,892	480
Other institutional spending .....	5,045,192	6,269,860	2,282,494	1,473,745	42
Undergraduate students .....	15,699,843	18,574,398	11,581,142	6,308,100	273
Graduate/professional students.....	†	†	†	†	†
<b>Shelton St Comm College-C A Fredd .....</b>	4,062,904	5,662,643	3,002,950	2,109,506	111
Wages and salaries .....	1,043,543	2,259,339	1,465,327	1,264,130	70
Other institutional spending .....	1,301,476	1,559,127	433,736	261,607	9
Undergraduate students .....	1,717,885	1,844,177	1,103,887	583,769	32
Graduate/professional students.....	†	†	†	†	†
<b>Southern University at Shreveport .....</b>	20,939,799	31,218,384	18,392,503	12,542,615	679
Wages and salaries .....	5,198,253	11,824,764	7,898,568	6,723,300	425
Other institutional spending .....	3,441,896	4,613,444	1,574,381	983,438	33
Undergraduate students .....	12,299,650	14,780,176	8,919,554	4,835,877	221
Graduate/professional students.....	†	†	†	†	†
<b>St Philips College.....</b>	99,011,243	155,312,276	95,368,635	64,967,042	2,301
Wages and salaries .....	25,533,291	60,056,138	40,847,353	34,214,769	1,138
Other institutional spending .....	14,353,229	20,196,866	7,935,448	5,212,865	149
Undergraduate students .....	59,124,723	75,059,272	46,585,834	25,539,408	1,014
Graduate/professional students.....	†	†	†	†	†
<b>Trenholm St Technical College .....</b>	13,331,698	21,086,352	12,289,204	9,192,960	411
Wages and salaries .....	5,056,068	11,315,446	7,589,095	6,477,592	290
Other institutional spending .....	3,467,585	4,167,046	1,307,558	874,920	29
Undergraduate students .....	4,808,045	5,603,860	3,392,551	1,840,448	92
Graduate/professional students.....	†	†	†	†	†

† Not applicable.

NOTE: Output refers to the value of total production, including domestic and foreign trade. Value-added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs.

SOURCE: Initial spending estimates: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2001. The impacts of spending on output, value-added, labor income, and employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and consumption functions provided by MIG, Inc. Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

**Table A-2. Total economic impact of *not-for-profit* Historically Black Colleges and Universities: 2001**

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Total, not-for-profit HBCUs .....</b>	2,504,395,035	3,968,612,757	2,308,067,488	1,702,815,040	65,307
<b>Total, 4-year .....</b>	2,492,286,973	3,950,462,785	2,297,452,402	1,695,130,729	64,785
<b>Allen University .....</b>	13,128,550	16,022,672	9,679,275	5,685,089	349
Wages and salaries.....	947,330	2,113,822	1,423,672	1,211,007	152
Other institutional spending.....	872,657	1,039,809	339,459	215,969	7
Undergraduate students.....	11,308,563	12,869,041	7,916,144	4,258,113	190
Graduate/professional students .....	†	†	†	†	†
<b>Arkansas Baptist College .....</b>	3,670,619	4,979,532	2,705,496	1,758,580	146
Wages and salaries.....	500,899	1,138,156	766,590	651,289	97
Other institutional spending.....	1,197,710	1,497,259	513,013	333,714	11
Undergraduate students.....	1,972,010	2,344,117	1,425,893	773,577	38
Graduate/professional students .....	†	†	†	†	†
<b>Barber-Scotia College.....</b>	12,905,304	18,688,963	10,708,476	7,324,086	347
Wages and salaries.....	2,694,467	6,159,639	4,235,633	3,559,471	220
Other institutional spending.....	4,467,612	5,646,071	2,163,454	1,403,034	36
Undergraduate students.....	5,743,225	6,883,253	4,309,389	2,361,581	91
Graduate/professional students .....	†	†	†	†	†
<b>Benedict College.....</b>	67,194,101	95,492,971	53,477,399	37,271,177	1,665
Wages and salaries.....	16,349,344	36,481,059	24,570,211	20,899,963	1,013
Other institutional spending.....	21,493,319	25,610,242	8,360,793	5,319,257	160
Undergraduate students.....	29,351,438	33,401,670	20,546,395	11,051,957	492
Graduate/professional students .....	†	†	†	†	†
<b>Bennett College .....</b>	19,615,140	30,686,561	17,082,060	12,712,020	667
Wages and salaries.....	6,208,550	14,270,448	9,790,713	8,260,635	509
Other institutional spending.....	8,151,285	10,152,896	3,426,836	2,336,980	67
Undergraduate students.....	5,255,305	6,263,217	3,864,511	2,114,405	91
Graduate/professional students .....	†	†	†	†	†
<b>Bethune Cookman College.....</b>	60,356,973	91,496,063	53,460,028	37,718,275	2,053
Wages and salaries.....	16,264,223	37,186,755	25,355,484	21,445,870	1,426
Other institutional spending.....	17,394,377	21,829,614	7,848,613	5,134,213	159
Undergraduate students.....	26,698,373	32,479,694	20,255,931	11,138,192	468
Graduate/professional students .....	†	†	†	†	†
<b>Claflin University.....</b>	35,663,617	46,981,584	23,806,651	17,189,016	812
Wages and salaries.....	8,755,669	18,479,573	11,705,987	10,348,549	476
Other institutional spending.....	12,626,123	14,152,742	3,397,285	2,219,658	86
Undergraduate students.....	14,281,825	14,349,269	8,703,379	4,620,809	250
Graduate/professional students .....	†	†	†	†	†

(See notes at end of table.)

**Table A-2. Total economic impact of *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Clark Atlanta University</b> .....	127,084,913	208,061,732	127,192,184	91,737,201	2,672
Wages and salaries.....	39,381,486	93,046,041	65,007,415	54,262,542	1,560
Other institutional spending.....	40,468,787	55,033,925	24,050,998	16,103,540	366
Undergraduate students.....	39,226,735	49,609,957	31,529,904	17,618,760	618
Graduate/professional students.....	8,007,905	10,371,809	6,603,867	3,752,359	128
<b>Concordia College</b> .....	10,417,886	12,039,888	6,387,973	4,004,912	312
Wages and salaries.....	1,277,255	2,696,480	1,724,309	1,517,672	168
Other institutional spending.....	2,030,213	2,169,837	375,535	231,727	9
Undergraduate students.....	7,110,418	7,173,571	4,288,129	2,255,513	135
Graduate/professional students.....	†	†	†	†	†
<b>Dillard University</b> .....	54,246,224	84,321,145	48,134,979	33,719,904	1,449
Wages and salaries.....	14,542,173	33,454,994	22,779,248	19,209,682	918
Other institutional spending.....	18,896,296	25,523,304	9,694,943	5,984,782	174
Undergraduate students.....	20,807,755	25,342,847	15,660,788	8,525,440	357
Graduate/professional students.....	†	†	†	†	†
<b>Edward Waters College</b> .....	23,826,531	32,974,931	17,476,794	11,183,023	787
Wages and salaries.....	2,000,464	4,687,623	3,176,309	2,685,547	390
Other institutional spending.....	8,591,237	11,650,162	4,327,553	2,966,479	111
Undergraduate students.....	13,234,830	16,637,146	9,972,932	5,530,997	286
Graduate/professional students.....	†	†	†	†	†
<b>Fisk University</b> .....	26,740,150	42,798,421	24,215,440	17,709,473	667
Wages and salaries.....	7,288,715	17,260,199	11,941,934	10,050,810	421
Other institutional spending.....	11,048,735	14,870,226	5,611,768	3,933,424	104
Undergraduate students.....	8,187,908	10,389,062	6,487,207	3,626,055	138
Graduate/professional students.....	214,793	278,934	174,531	99,184	4
<b>Florida Memorial College</b> .....	47,206,118	73,730,366	43,902,771	30,953,098	1,320
Wages and salaries.....	11,497,804	27,186,050	18,903,277	15,860,863	848
Other institutional spending.....	15,210,591	20,570,020	8,593,248	5,903,028	145
Undergraduate students.....	20,497,723	25,974,296	16,406,246	9,189,207	327
Graduate/professional students.....	†	†	†	†	†
<b>Hampton University</b> .....	143,361,666	226,946,776	130,212,556	93,517,953	4,377
Wages and salaries.....	41,579,950	96,820,573	65,612,881	55,395,699	2,851
Other institutional spending.....	46,536,573	61,253,577	22,924,611	15,145,759	471
Undergraduate students.....	48,614,113	60,429,143	36,565,526	20,117,971	926
Graduate/professional students.....	6,631,030	8,443,483	5,109,538	2,858,524	129
<b>Howard University</b> .....	683,650,435	1,169,359,285	702,885,546	541,861,032	14,613
Wages and salaries.....	277,025,055	641,162,911	444,970,777	376,060,618	10,505
Other institutional spending.....	300,932,945	397,137,820	173,996,906	118,327,070	2,480
Undergraduate students.....	68,324,048	84,016,417	53,754,173	30,220,189	1,048
Graduate/professional students.....	37,368,388	47,042,137	30,163,690	17,253,155	580

(See notes at end of table.)

**Table A-2. Total economic impact of *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Huston-Tillotson College</b> .....	17,230,036	24,738,451	13,348,887	9,456,354	444
Wages and salaries.....	3,243,188	7,273,755	4,919,675	4,185,647	290
Other institutional spending.....	8,446,923	10,942,696	4,308,438	3,011,159	71
Undergraduate students.....	5,539,925	6,522,000	4,120,774	2,259,548	83
Graduate/professional students.....	†	†	†	†	†
<b>Interdenominational Theolog Ctr.</b> .....	11,805,746	18,905,760	11,259,446	8,039,927	296
Wages and salaries.....	3,111,107	7,350,565	5,135,536	4,286,699	189
Other institutional spending.....	4,541,984	6,176,691	2,699,346	1,807,369	41
Undergraduate students.....	†	†	†	†	†
Graduate/professional students.....	4,152,655	5,378,504	3,424,564	1,945,859	66
<b>Jarvis Christian College</b> .....	17,469,734	27,390,044	15,456,023	10,937,985	529
Wages and salaries.....	5,118,829	11,666,235	7,899,519	6,646,829	374
Other institutional spending.....	6,582,267	8,775,950	3,267,398	1,982,433	58
Undergraduate students.....	5,768,638	6,947,859	4,289,106	2,308,723	97
Graduate/professional students.....	†	†	†	†	†
<b>Johnson C Smith University</b> .....	41,246,765	61,540,595	35,256,942	24,760,525	1,080
Wages and salaries.....	10,211,123	23,342,958	16,051,622	13,489,196	708
Other institutional spending.....	15,340,882	19,387,474	7,428,867	4,817,735	122
Undergraduate students.....	15,694,760	18,810,163	11,776,453	6,453,594	250
Graduate/professional students.....	†	†	†	†	†
<b>Lane College</b> .....	14,495,404	19,353,640	10,551,608	7,431,701	585
Wages and salaries.....	3,408,963	7,399,718	4,929,881	4,240,250	445
Other institutional spending.....	4,331,798	4,907,658	1,228,238	841,586	26
Undergraduate students.....	6,754,643	7,046,264	4,393,489	2,349,865	114
Graduate/professional students.....	†	†	†	†	†
<b>Le Moyne-Owen College</b> .....	20,337,476	31,770,781	17,844,102	12,834,296	485
Wages and salaries.....	5,284,457	12,373,164	8,514,986	7,165,660	298
Other institutional spending.....	8,156,066	10,888,283	4,016,645	2,728,929	75
Undergraduate students.....	6,896,953	8,509,334	5,312,471	2,939,707	112
Graduate/professional students.....	†	†	†	†	†
<b>Livingstone College</b> .....	17,430,585	25,419,037	13,198,531	10,256,942	592
Wages and salaries.....	6,205,866	13,130,043	8,362,548	7,375,842	477
Other institutional spending.....	6,853,419	7,687,166	2,023,279	1,363,246	43
Undergraduate students.....	3,049,500	3,188,720	1,951,662	1,047,652	50
Graduate/professional students.....	1,321,800	1,413,108	861,042	470,202	22
<b>Meharry Medical College</b> .....	93,984,045	173,837,231	103,549,144	82,329,008	2,974
Wages and salaries.....	46,811,103	110,852,044	76,695,980	64,550,407	2,459
Other institutional spending.....	37,564,067	50,556,577	19,079,185	13,373,063	352
Undergraduate students.....	1,667,060	2,115,216	1,320,797	738,266	28
Graduate/professional students.....	7,941,815	10,313,394	6,453,182	3,667,272	135

(See notes at end of table.)

**Table A-2. Total economic impact of *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Miles College</b> .....	32,052,746	43,824,439	24,296,018	15,992,811	860
Wages and salaries.....	4,816,456	10,923,245	7,447,831	6,296,416	490
Other institutional spending.....	11,368,725	14,128,365	5,143,322	3,320,905	94
Undergraduate students.....	15,867,565	18,772,829	11,704,865	6,375,490	276
Graduate/professional students .....	†	†	†	†	†
<b>Morehouse College</b> .....	79,122,942	128,768,198	77,676,160	56,061,107	1,952
Wages and salaries.....	23,669,613	55,923,832	39,071,665	32,613,632	1,269
Other institutional spending.....	28,490,666	38,744,752	16,932,282	11,337,146	258
Undergraduate students.....	26,962,663	34,099,614	21,672,213	12,110,329	425
Graduate/professional students .....	†	†	†	†	†
<b>Morehouse School of Medicine</b> .....	83,356,171	160,987,286	100,397,593	80,020,773	2,559
Wages and salaries.....	47,645,738	112,571,852	78,649,290	65,649,596	2,221
Other institutional spending.....	33,430,328	45,462,250	19,867,972	13,302,761	302
Undergraduate students.....	†	†	†	†	†
Graduate/professional students .....	2,280,105	2,953,184	1,880,331	1,068,416	36
<b>Morris Brown College</b> .....	65,740,496	106,480,108	65,983,379	47,004,541	1,829
Wages and salaries.....	19,765,974	46,700,764	32,627,889	27,234,928	1,220
Other institutional spending.....	17,177,077	23,359,285	10,208,505	6,835,187	155
Undergraduate students.....	28,797,445	36,420,059	23,146,985	12,934,426	454
Graduate/professional students .....	†	†	†	†	†
<b>Morris College</b> .....	21,456,294	28,977,269	15,583,179	11,238,571	645
Wages and salaries.....	5,680,636	12,169,270	7,858,422	6,910,358	437
Other institutional spending.....	5,895,278	6,526,717	1,460,538	965,479	34
Undergraduate students.....	9,880,380	10,281,282	6,264,219	3,362,734	174
Graduate/professional students .....	†	†	†	†	†
<b>Oakwood College</b> .....	39,824,265	57,315,478	32,243,048	23,704,788	1,186
Wages and salaries.....	12,211,449	26,583,200	17,560,004	15,106,778	807
Other institutional spending.....	10,535,616	12,444,624	3,708,366	2,598,823	81
Undergraduate students.....	17,077,200	18,287,654	10,974,678	5,999,187	298
Graduate/professional students .....	†	†	†	†	†
<b>Paine College</b> .....	18,812,457	27,908,188	16,081,569	11,266,602	638
Wages and salaries.....	5,001,175	11,250,699	7,553,379	6,404,881	437
Other institutional spending.....	5,506,477	6,884,680	2,503,737	1,606,782	50
Undergraduate students.....	8,304,805	9,772,809	6,024,453	3,254,939	151
Graduate/professional students .....	†	†	†	†	†
<b>Paul Quinn College</b> .....	20,053,231	32,401,228	19,739,572	13,821,501	569
Wages and salaries.....	5,279,294	12,476,644	8,663,364	7,216,759	383
Other institutional spending.....	6,789,329	9,675,490	4,555,414	2,974,866	65
Undergraduate students.....	7,984,608	10,249,094	6,520,794	3,629,876	121
Graduate/professional students .....	†	†	†	†	†

(See notes at end of table.)

**Table A-2. Total economic impact of *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Philander Smith College</b> .....	15,703,020	23,470,909	13,650,064	9,563,396	502
Wages and salaries.....	4,220,625	9,590,209	6,459,359	5,487,823	320
Other institutional spending.....	3,772,242	4,715,685	1,615,759	1,051,048	34
Undergraduate students.....	7,710,153	9,165,015	5,574,946	3,024,525	148
Graduate/professional students .....	†	†	†	†	†
<b>Rust College</b> .....	17,144,380	26,667,966	15,415,040	10,951,878	571
Wages and salaries.....	4,469,677	10,465,416	7,202,109	6,060,828	404
Other institutional spending.....	5,579,533	7,448,659	2,747,781	1,866,856	52
Undergraduate students.....	7,095,170	8,753,891	5,465,150	3,024,194	115
Graduate/professional students .....	†	†	†	†	†
<b>Saint Augustine's College</b> .....	33,851,703	50,038,665	28,960,118	20,607,985	856
Wages and salaries.....	9,592,704	21,406,142	14,533,008	12,300,118	554
Other institutional spending.....	11,069,911	13,478,360	4,901,549	3,153,600	82
Undergraduate students.....	13,189,088	15,154,163	9,525,561	5,154,267	220
Graduate/professional students .....	†	†	†	†	†
<b>Saint Paul's College</b> .....	13,446,486	15,866,324	6,839,063	5,075,957	424
Wages and salaries.....	2,647,057	5,374,382	3,185,844	2,894,432	303
Other institutional spending.....	5,650,856	5,919,742	907,835	705,659	26
Undergraduate students.....	5,148,573	4,572,200	2,745,384	1,475,866	95
Graduate/professional students .....	†	†	†	†	†
<b>Shaw University</b> .....	50,792,145	70,882,909	40,264,959	27,403,082	1,464
Wages and salaries.....	10,459,928	23,341,353	15,846,857	13,412,104	949
Other institutional spending.....	16,952,349	20,640,622	7,506,182	4,829,391	126
Undergraduate students.....	21,991,978	25,268,616	15,883,276	8,594,418	366
Graduate/professional students .....	1,387,890	1,632,318	1,028,644	567,169	23
<b>Southwestern Christian College</b> .....	4,902,248	7,916,198	4,825,129	3,376,559	183
Wages and salaries.....	1,287,878	3,043,663	2,113,418	1,760,520	137
Other institutional spending.....	1,647,442	2,347,774	1,105,379	721,856	16
Undergraduate students.....	1,966,928	2,524,761	1,606,332	894,183	30
Graduate/professional students .....	†	†	†	†	†
<b>Spelman College</b> .....	64,393,781	104,253,335	62,467,796	45,011,726	1,778
Wages and salaries.....	18,667,138	44,104,562	30,814,030	25,720,876	1,221
Other institutional spending.....	24,349,648	33,113,338	14,471,235	9,689,333	220
Undergraduate students.....	21,376,995	27,035,435	17,182,531	9,601,517	337
Graduate/professional students .....	†	†	†	†	†
<b>Stillman College</b> .....	32,163,206	43,650,042	22,986,563	15,612,465	883
Wages and salaries.....	6,835,572	14,799,464	9,598,406	8,280,495	531
Other institutional spending.....	10,125,876	12,130,481	3,374,597	2,035,380	67
Undergraduate students.....	15,201,758	16,720,097	10,013,560	5,296,590	285
Graduate/professional students .....	†	†	†	†	†

(See notes at end of table.)



**Table A-2. Total economic impact of *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Talladega College.....</b>	14,934,372	24,360,277	14,607,702	11,588,622	459
Wages and salaries.....	8,203,440	17,285,785	10,988,370	9,657,127	355
Other institutional spending.....	1,429,884	1,576,920	352,518	228,343	8
Undergraduate students.....	5,301,048	5,497,572	3,266,814	1,703,152	96
Graduate/professional students.....	†	†	†	†	†
<b>Texas College.....</b>	12,546,828	18,479,414	10,240,778	7,074,984	341
Wages and salaries.....	2,906,400	6,555,192	4,446,108	3,761,909	220
Other institutional spending.....	4,522,350	5,884,089	2,057,359	1,295,688	37
Undergraduate students.....	5,118,078	6,040,133	3,737,311	2,017,387	84
Graduate/professional students.....	†	†	†	†	†
<b>Tougaloo College.....</b>	25,462,394	37,455,630	19,791,656	14,230,335	788
Wages and salaries.....	6,579,066	14,744,647	9,802,666	8,388,304	549
Other institutional spending.....	9,678,920	12,071,159	3,536,426	2,367,032	77
Undergraduate students.....	9,204,408	10,639,824	6,452,564	3,474,999	162
Graduate/professional students.....	†	†	†	†	†
<b>Tuskegee University.....</b>	102,927,343	133,373,079	58,768,351	46,239,491	2,147
Wages and salaries.....	32,158,172	65,095,718	38,337,778	34,744,392	1,443
Other institutional spending.....	42,287,543	43,982,836	5,972,521	4,263,625	166
Undergraduate students.....	24,736,528	21,012,122	12,509,194	6,234,806	467
Graduate/professional students.....	3,745,100	3,282,403	1,948,858	996,668	71
<b>Virginia Union University.....</b>	27,249,002	39,462,543	24,081,094	16,149,262	750
Wages and salaries.....	5,742,252	13,159,812	9,024,402	7,603,482	418
Other institutional spending.....	4,460,852	5,711,886	2,225,287	1,486,388	39
Undergraduate students.....	13,697,338	16,468,639	10,259,567	5,624,273	235
Graduate/professional students.....	3,348,560	4,122,206	2,571,838	1,435,119	58
<b>Voorhees College.....</b>	16,033,022	19,206,456	9,367,328	6,494,015	554
Wages and salaries.....	3,264,556	6,683,663	4,097,310	3,664,620	375
Other institutional spending.....	5,480,161	5,823,111	1,227,834	751,813	32
Undergraduate students.....	7,288,305	6,699,682	4,042,184	2,077,582	147
Graduate/professional students.....	†	†	†	†	†
<b>Wilberforce University.....</b>	24,642,743	35,776,962	19,800,943	14,350,519	729
Wages and salaries.....	6,240,704	14,034,113	9,452,044	8,101,775	491
Other institutional spending.....	8,999,414	11,014,378	3,747,414	2,612,315	74
Undergraduate students.....	9,402,625	10,728,471	6,601,485	3,636,429	164
Graduate/professional students.....	†	†	†	†	†
<b>Wiley College.....</b>	15,672,431	21,234,364	11,216,663	7,681,930	472
Wages and salaries.....	3,421,926	7,340,854	4,786,188	4,119,873	339
Other institutional spending.....	6,451,372	7,663,490	2,588,475	1,548,324	41
Undergraduate students.....	5,799,133	6,230,020	3,842,000	2,013,733	92
Graduate/professional students.....	†	†	†	†	†

(See notes at end of table.)

**Table A-2. Total economic impact of *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Initial spending (2001 dollars)	Output impact (2001 dollars)	Value-added impact (2001 dollars)	Labor income impact (2001 dollars)	Employment impact (jobs)
<b>Xavier University of Louisiana</b> .....	96,935,260	154,169,089	90,376,326	64,216,252	2,425
Wages and salaries.....	29,705,811	68,339,699	46,531,975	39,240,298	1,496
Other institutional spending.....	28,584,509	38,609,210	14,665,582	9,053,205	264
Undergraduate students.....	33,275,128	40,527,509	25,044,255	13,633,625	571
Graduate/professional students .....	5,369,813	6,692,671	4,134,514	2,289,124	94
<b>Total, 2-year</b> .....	12,108,062	18,149,972	10,615,086	7,684,311	522
<b>Clinton Junior College</b> .....	1,083,904	1,738,462	1,030,122	758,844	36
Wages and salaries.....	383,676	877,096	603,129	506,847	28
Other institutional spending.....	369,865	467,427	179,108	116,154	3
Undergraduate students.....	330,363	393,939	247,885	135,843	5
Graduate/professional students .....	†	†	†	†	†
<b>Lewis College of Business</b> .....	4,546,684	7,221,134	4,610,484	3,282,567	157
Wages and salaries.....	1,496,070	3,444,573	2,357,226	1,996,608	112
Other institutional spending.....	458,539	602,306	247,663	167,919	4
Undergraduate students.....	2,592,075	3,174,255	2,005,595	1,118,040	41
Graduate/professional students .....	†	†	†	†	†
<b>Mary Holmes College</b> .....	6,477,475	9,190,376	4,974,480	3,642,900	329
Wages and salaries.....	1,955,683	4,197,045	2,709,705	2,358,915	265
Other institutional spending.....	1,843,314	2,109,503	536,615	363,531	13
Undergraduate students.....	2,678,478	2,883,828	1,728,160	920,454	51
Graduate/professional students .....	†	†	†	†	†

† Not applicable.

NOTE: Output refers to the value of total production, including domestic and foreign trade. Value-added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs.

SOURCE: Initial spending estimates: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2001. The impacts of spending on output, value-added, labor income, and employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and consumption functions provided by MIG, Inc. Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

**Table A-3. Economic multipliers for *public* Historically Black Colleges and Universities: 2001**

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>4-year</b>				
<b>Alabama A &amp; M University</b>				
Wages and salaries .....	2.199	1.453	1.250	56.4
Other institutional spending .....	1.193	0.356	0.249	7.7
Undergraduate students .....	1.400	0.840	0.459	22.8
Graduate/professional students.....	1.404	0.845	0.470	22.7
<b>Alabama State University</b>				
Wages and salaries .....	2.257	1.514	1.292	66.6
Other institutional spending .....	1.213	0.380	0.255	8.3
Undergraduate students .....	1.467	0.888	0.482	24.2
Graduate/professional students.....	1.472	0.892	0.493	24.0
<b>Albany State University</b>				
Wages and salaries .....	2.230	1.484	1.274	68.2
Other institutional spending .....	1.179	0.335	0.222	7.4
Undergraduate students .....	1.419	0.866	0.468	23.6
Graduate/professional students.....	1.423	0.869	0.478	23.4
<b>Alcorn State University</b>				
Wages and salaries .....	2.139	1.372	1.195	93.5
Other institutional spending .....	1.144	0.311	0.185	6.8
Undergraduate students .....	1.328	0.808	0.424	22.3
Graduate/professional students.....	1.328	0.810	0.433	22.1
<b>Bluefield State College</b>				
Wages and salaries .....	2.232	1.480	1.271	70.5
Other institutional spending .....	1.214	0.379	0.240	8.7
Undergraduate students .....	1.446	0.861	0.462	24.8
Graduate/professional students.....	†	†	†	†
<b>Bowie State University</b>				
Wages and salaries .....	2.331	1.618	1.367	53.8
Other institutional spending .....	1.328	0.582	0.396	8.3
Undergraduate students .....	1.548	0.990	0.557	19.3
Graduate/professional students.....	1.554	0.996	0.570	19.2
<b>Central State University</b>				
Wages and salaries .....	2.267	1.527	1.309	63.2
Other institutional spending .....	1.234	0.420	0.293	8.3
Undergraduate students .....	1.464	0.901	0.496	22.3
Graduate/professional students.....	1.470	0.905	0.508	23.6

(See notes at end of table.)

**Table A-3. Economic multipliers for *public* Historically Black Colleges and Universities: 2001—Continued**

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Cheyney University of PA</b>				
Wages and salaries .....	2.454	1.716	1.431	53.9
Other institutional spending .....	1.466	0.681	0.453	9.9
Undergraduate students .....	1.657	1.045	0.591	20.3
Graduate/professional students.....	1.666	1.051	0.604	20.1
<b>Coppin State College</b>				
Wages and salaries .....	2.390	1.662	1.397	72.0
Other institutional spending .....	1.381	0.603	0.407	10.0
Undergraduate students .....	1.606	1.012	0.569	21.9
Graduate/professional students.....	1.613	1.018	0.582	21.9
<b>Delaware State University</b>				
Wages and salaries .....	2.171	1.415	1.232	47.6
Other institutional spending .....	1.145	0.284	0.202	6.8
Undergraduate students .....	1.348	0.823	0.439	21.1
Graduate/professional students.....	1.351	0.822	0.446	20.8
<b>Elizabeth City State University</b>				
Wages and salaries .....	2.177	1.412	1.225	54.9
Other institutional spending .....	1.153	0.332	0.207	7.0
Undergraduate students .....	1.375	0.842	0.450	23.1
Graduate/professional students.....	1.378	0.846	0.461	24.6
<b>Fayetteville State University</b>				
Wages and salaries .....	2.192	1.429	1.234	62.5
Other institutional spending .....	1.169	0.312	0.216	7.5
Undergraduate students .....	1.391	0.844	0.450	22.4
Graduate/professional students.....	1.394	0.847	0.461	22.5
<b>Florida Agricultural &amp; Mechanical</b>				
Wages and salaries .....	2.240	1.519	1.295	46.6
Other institutional spending .....	1.237	0.431	0.299	8.6
Undergraduate students .....	1.436	0.900	0.489	19.0
Graduate/professional students.....	1.441	0.904	0.501	19.0
<b>Fort Valley State University</b>				
Wages and salaries .....	2.079	1.269	1.128	39.0
Other institutional spending .....	1.068	0.178	0.129	4.5
Undergraduate students .....	1.226	0.783	0.400	21.6
Graduate/professional students.....	1.230	0.776	0.405	21.3

(See notes at end of table.)

Table A-3. Economic multipliers for *public* Historically Black Colleges and Universities: 2001—Continued

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Grambling State University</b>				
Wages and salaries .....	2.157	1.365	1.200	66.5
Other institutional spending .....	1.152	0.241	0.165	6.3
Undergraduate students .....	1.341	0.795	0.422	25.3
Graduate/professional students.....	1.343	0.795	0.430	25.2
<b>Harris-Stowe State College</b>				
Wages and salaries .....	2.456	1.701	1.417	60.9
Other institutional spending .....	1.447	0.597	0.399	10.2
Undergraduate students .....	1.657	1.022	0.572	22.0
Graduate/professional students.....	†	†	†	†
<b>Jackson State University</b>				
Wages and salaries .....	2.261	1.503	1.286	58.9
Other institutional spending .....	1.259	0.369	0.247	8.0
Undergraduate students .....	1.455	0.883	0.475	22.2
Graduate/professional students.....	1.459	0.887	0.486	22.0
<b>Kentucky State University</b>				
Wages and salaries .....	2.081	1.303	1.159	60.9
Other institutional spending .....	1.061	0.181	0.136	4.6
Undergraduate students .....	1.211	0.740	0.388	22.0
Graduate/professional students.....	1.213	0.742	0.397	21.9
<b>Langston University</b>				
Wages and salaries .....	2.368	1.614	1.355	95.9
Other institutional spending .....	1.398	0.561	0.358	11.9
Undergraduate students .....	1.589	0.960	0.525	24.8
Graduate/professional students.....	1.592	0.965	0.537	24.3
<b>Lincoln University (MO)</b>				
Wages and salaries .....	2.193	1.459	1.255	60.2
Other institutional spending .....	1.142	0.324	0.201	6.2
Undergraduate students .....	1.365	0.841	0.447	22.6
Graduate/professional students.....	1.367	0.843	0.457	22.5
<b>Lincoln University (PA)</b>				
Wages and salaries .....	2.454	1.716	1.431	68.9
Other institutional spending .....	1.466	0.681	0.453	9.8
Undergraduate students .....	1.657	1.045	0.591	20.3
Graduate/professional students.....	1.666	1.051	0.604	20.3
<b>Mississippi Valley State University</b>				
Wages and salaries .....	2.121	1.331	1.173	73.0
Other institutional spending .....	1.117	0.251	0.170	6.4
Undergraduate students .....	1.306	0.787	0.411	22.9
Graduate/professional students.....	1.306	0.793	0.420	22.8

(See notes at end of table.)

**Table A-3. Economic multipliers for public Historically Black Colleges and Universities: 2001—Continued**

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Morgan State University</b>				
Wages and salaries .....	2.390	1.662	1.397	62.7
Other institutional spending .....	1.381	0.603	0.407	10.0
Undergraduate students .....	1.606	1.012	0.569	21.9
Graduate/professional students.....	1.613	1.018	0.582	21.7
<b>NC Agricultural &amp; Technical State University</b>				
Wages and salaries .....	2.315	1.588	1.340	50.8
Other institutional spending .....	1.256	0.424	0.289	8.3
Undergraduate students .....	1.500	0.926	0.507	21.9
Graduate/professional students.....	1.505	0.931	0.519	21.8
<b>Norfolk State University</b>				
Wages and salaries .....	2.345	1.589	1.342	71.8
Other institutional spending .....	1.326	0.496	0.328	10.2
Undergraduate students .....	1.565	0.947	0.521	24.0
Graduate/professional students.....	1.572	0.951	0.532	24.0
<b>North Carolina Central University</b>				
Wages and salaries .....	2.223	1.507	1.286	49.1
Other institutional spending .....	1.178	0.369	0.246	6.7
Undergraduate students .....	1.388	0.860	0.464	20.6
Graduate/professional students.....	1.392	0.864	0.475	20.4
<b>Prairie View A &amp; M University</b>				
Wages and salaries .....	2.369	1.628	1.359	58.5
Other institutional spending .....	1.510	0.712	0.452	10.0
Undergraduate students .....	1.610	1.023	0.566	20.1
Graduate/professional students.....	1.616	1.027	0.578	20.0
<b>Savannah State University</b>				
Wages and salaries .....	2.271	1.538	1.307	47.4
Other institutional spending .....	1.239	0.414	0.271	8.1
Undergraduate students .....	1.480	0.923	0.503	22.2
Graduate/professional students.....	1.485	0.929	0.516	22.3
<b>South Carolina State University</b>				
Wages and salaries .....	2.136	1.353	1.196	49.3
Other institutional spending .....	1.133	0.272	0.178	6.9
Undergraduate students .....	1.314	0.797	0.423	22.9
Graduate/professional students.....	1.316	0.798	0.433	22.7
<b>Southern Univ. and A &amp; M College</b>				
Wages and salaries .....	2.245	1.504	1.285	68.0
Other institutional spending .....	1.264	0.456	0.289	8.8
Undergraduate students .....	1.441	0.879	0.474	21.6
Graduate/professional students.....	1.446	0.881	0.484	21.7

(See notes at end of table.)

**Table A-3. Economic multipliers for public Historically Black Colleges and Universities: 2001—Continued**

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Southern University New Orleans</b>				
Wages and salaries .....	2.318	1.578	1.331	68.6
Other institutional spending .....	1.360	0.517	0.319	9.3
Undergraduate students .....	1.533	0.948	0.516	21.6
Graduate/professional students.....	1.538	0.950	0.526	21.6
<b>Tennessee State University</b>				
Wages and salaries .....	2.385	1.650	1.389	58.7
Other institutional spending .....	1.357	0.512	0.359	9.4
Undergraduate students .....	1.597	0.997	0.558	21.1
Graduate/professional students.....	1.603	1.003	0.570	21.1
<b>Texas Southern University</b>				
Wages and salaries .....	2.369	1.628	1.359	68.9
Other institutional spending .....	1.510	0.712	0.452	10.0
Undergraduate students .....	1.610	1.023	0.566	20.1
Graduate/professional students.....	1.616	1.027	0.578	19.9
<b>University of Arkansas at Pine Bluff</b>				
Wages and salaries .....	2.159	1.407	1.221	66.5
Other institutional spending .....	1.127	0.297	0.181	6.5
Undergraduate students .....	1.339	0.811	0.426	23.3
Graduate/professional students.....	1.341	0.813	0.436	23.3
<b>University of the District of Columbia</b>				
Wages and salaries .....	2.331	1.618	1.367	43.6
Other institutional spending .....	1.328	0.582	0.396	8.3
Undergraduate students .....	1.548	0.990	0.557	19.3
Graduate/professional students.....	1.554	0.996	0.570	19.1
<b>University of DC Clarke School of Law</b>				
Wages and salaries .....	2.331	1.618	1.367	41.9
Other institutional spending .....	1.328	0.582	0.396	8.0
Undergraduate students .....	†	†	†	†
Graduate/professional students.....	1.554	0.996	0.570	19.4
<b>University of Maryland-Eastern Shore</b>				
Wages and salaries .....	2.279	1.539	1.310	64.0
Other institutional spending .....	1.230	0.407	0.255	8.1
Undergraduate students .....	1.483	0.904	0.488	23.5
Graduate/professional students.....	1.487	0.905	0.497	23.2

(See notes at end of table.)

**Table A-3. Economic multipliers for public Historically Black Colleges and Universities: 2001—Continued**

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Virginia State University</b>				
Wages and salaries .....	2.309	1.583	1.334	71.8
Other institutional spending .....	1.290	0.502	0.336	8.9
Undergraduate students .....	1.514	0.943	0.517	21.6
Graduate/professional students.....	1.519	0.948	0.529	21.5
<b>West Virginia State College</b>				
Wages and salaries .....	2.201	1.460	1.263	71.9
Other institutional spending .....	1.203	0.366	0.234	7.5
Undergraduate students .....	1.380	0.836	0.446	23.7
Graduate/professional students.....	†	†	†	†
<b>Winston-Salem State University</b>				
Wages and salaries .....	2.244	1.528	1.304	57.3
Other institutional spending .....	1.187	0.355	0.241	7.1
Undergraduate students .....	1.424	0.884	0.479	22.2
Graduate/professional students.....	1.429	0.887	0.489	19.9
<b>2-year</b>				
<b>Bishop State Community College</b>				
Wages and salaries .....	2.282	1.536	1.301	69.8
Other institutional spending .....	1.309	0.464	0.288	8.9
Undergraduate students .....	1.498	0.908	0.488	23.6
Graduate/professional students.....	†	†	†	†
<b>Coahoma Community College</b>				
Wages and salaries .....	2.157	1.397	1.220	58.4
Other institutional spending .....	1.133	0.264	0.173	6.3
Undergraduate students .....	1.335	0.804	0.424	23.3
Graduate/professional students.....	†	†	†	†
<b>Denmark Technical College</b>				
Wages and salaries .....	2.075	1.272	1.138	56.3
Other institutional spending .....	1.075	0.227	0.139	5.8
Undergraduate students .....	1.228	0.741	0.381	26.9
Graduate/professional students.....	†	†	†	†
<b>Gadsden State Community College</b>				
Wages and salaries .....	2.208	1.451	1.254	67.3
Other institutional spending .....	1.174	0.337	0.222	7.4
Undergraduate students .....	1.400	0.850	0.456	24.0
Graduate/professional students.....	†	†	†	†

(See notes at end of table.)



**Table A-3. Economic multipliers for public Historically Black Colleges and Universities: 2001—Continued**

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>J F Drake State Technical College</b>				
Wages and salaries .....	2.199	1.453	1.250	53.9
Other institutional spending .....	1.193	0.356	0.249	8.0
Undergraduate students .....	1.401	0.840	0.459	23.3
Graduate/professional students.....	†	†	†	†
<b>Lawson State Community College</b>				
Wages and salaries .....	2.286	1.559	1.318	68.5
Other institutional spending .....	1.253	0.456	0.294	8.4
Undergraduate students .....	1.489	0.929	0.506	21.9
Graduate/professional students.....	†	†	†	†
<b>Shelton State Comm College-C A Fredd</b>				
Wages and salaries .....	2.187	1.419	1.224	67.8
Other institutional spending .....	1.210	0.337	0.203	7.0
Undergraduate students .....	1.385	0.829	0.438	24.0
Graduate/professional students.....	†	†	†	†
<b>Southern University at Shreveport</b>				
Wages and salaries .....	2.294	1.532	1.304	82.4
Other institutional spending .....	1.351	0.461	0.288	9.7
Undergraduate students .....	1.513	0.913	0.495	22.6
Graduate/professional students.....	†	†	†	†
<b>St. Philip's College</b>				
Wages and salaries .....	2.369	1.612	1.350	44.9
Other institutional spending .....	1.417	0.557	0.366	10.5
Undergraduate students .....	1.598	0.992	0.544	21.6
Graduate/professional students.....	†	†	†	†
<b>Trenholm State Technical College</b>				
Wages and salaries .....	2.257	1.514	1.292	57.8
Other institutional spending .....	1.213	0.380	0.255	8.4
Undergraduate students .....	1.467	0.888	0.482	24.1
Graduate/professional students.....	†	†	†	†

† Not applicable.

NOTE: Economic multipliers for output, value-added, and labor income are expressed in dollar amounts to the nearest third decimal whereas multipliers for employment are reported to the first decimal. This reflects fundamental differences in how multipliers are used and what they represent. The output, value-added, and labor income multipliers are applied against dollar amounts and generate impact estimates in terms of dollar amounts. The employment multipliers are applied against \$1,000,000 amounts and generate economic impact estimates that are measured in terms of jobs. Output refers to the value of total production, including domestic and foreign trade. Value-added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs.

SOURCE: The multipliers for output, value-added, labor income, and employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and production functions provided by MIG. Inc. Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

**Table A-4. Economic multipliers for *not-for-profit* Historically Black Colleges and Universities: 2001**

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>4-year</b>				
<b>Allen University</b>				
Wages and salaries .....	2.250	1.516	1.289	161.8
Other institutional spending .....	1.202	0.392	0.250	8.1
Undergraduate students .....	1.433	0.881	0.474	21.2
Graduate/professional students.....	†	†	†	†
<b>Arkansas Baptist College</b>				
Wages and salaries .....	2.291	1.543	1.311	195.2
Other institutional spending .....	1.260	0.432	0.281	9.3
Undergraduate students .....	1.497	0.910	0.494	24.3
Graduate/professional students.....	†	†	†	†
<b>Barber-Scotia College</b>				
Wages and salaries .....	2.304	1.584	1.331	82.3
Other institutional spending .....	1.273	0.488	0.316	8.1
Undergraduate students .....	1.509	0.945	0.518	19.9
Graduate/professional students.....	†	†	†	†
<b>Benedict College</b>				
Wages and salaries .....	2.250	1.516	1.289	62.5
Other institutional spending .....	1.202	0.392	0.250	7.5
Undergraduate students .....	1.433	0.881	0.474	21.1
Graduate/professional students.....	†	†	†	†
<b>Bennett College</b>				
Wages and salaries .....	2.315	1.588	1.340	82.6
Other institutional spending .....	1.256	0.424	0.289	8.3
Undergraduate students .....	1.500	0.926	0.507	21.8
Graduate/professional students.....	†	†	†	†
<b>Bethune Cookman College</b>				
Wages and salaries .....	2.304	1.571	1.329	88.4
Other institutional spending .....	1.265	0.455	0.297	9.2
Undergraduate students .....	1.532	0.955	0.525	22.1
Graduate/professional students.....	†	†	†	†
<b>Clafin University</b>				
Wages and salaries .....	2.136	1.353	1.196	55.0
Other institutional spending .....	1.133	0.272	0.178	6.9
Undergraduate students .....	1.314	0.797	0.423	22.9
Graduate/professional students.....	†	†	†	†

(See notes at end of table.)

**Table A-4. Economic multipliers for *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Clark Atlanta University</b>				
Wages and salaries .....	2.379	1.662	1.388	39.9
Other institutional spending .....	1.368	0.598	0.400	9.1
Undergraduate students .....	1.592	1.012	0.565	19.8
Graduate/professional students.....	1.599	1.018	0.578	19.7
<b>Concordia College</b>				
Wages and salaries .....	2.134	1.365	1.201	133.0
Other institutional spending .....	1.083	0.187	0.116	4.5
Undergraduate students .....	1.302	0.778	0.409	24.5
Graduate/professional students.....	†	†	†	†
<b>Dillard University</b>				
Wages and salaries .....	2.318	1.578	1.331	63.6
Other institutional spending .....	1.360	0.517	0.319	9.3
Undergraduate students .....	1.533	0.948	0.516	21.6
Graduate/professional students.....	†	†	†	†
<b>Edward Waters College</b>				
Wages and salaries .....	2.360	1.599	1.352	196.3
Other institutional spending .....	1.365	0.507	0.347	13.0
Undergraduate students .....	1.583	0.949	0.526	27.2
Graduate/professional students.....	†	†	†	†
<b>Fisk University</b>				
Wages and salaries .....	2.385	1.650	1.389	58.2
Other institutional spending .....	1.357	0.512	0.359	9.5
Undergraduate students .....	1.597	0.997	0.558	21.2
Graduate/professional students.....	1.603	1.003	0.570	23.0
<b>Florida Memorial College</b>				
Wages and salaries .....	2.380	1.655	1.389	74.3
Other institutional spending .....	1.361	0.568	0.391	9.6
Undergraduate students .....	1.595	1.008	0.564	20.1
Graduate/professional students.....	†	†	†	†
<b>Hampton University</b>				
Wages and salaries .....	2.345	1.589	1.342	69.1
Other institutional spending .....	1.326	0.496	0.328	10.2
Undergraduate students .....	1.565	0.947	0.521	24.0
Graduate/professional students.....	1.572	0.951	0.532	24.0
<b>Howard University</b>				
Wages and salaries .....	2.331	1.618	1.367	38.2
Other institutional spending .....	1.328	0.582	0.396	8.3
Undergraduate students .....	1.548	0.990	0.557	19.3
Graduate/professional students.....	1.554	0.996	0.570	19.2

(See notes at end of table.)

**Table A-4. Economic multipliers for *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Huston-Tillotson College</b>				
Wages and salaries .....	2.263	1.531	1.302	90.2
Other institutional spending .....	1.305	0.514	0.359	8.5
Undergraduate students .....	1.482	0.936	0.513	18.9
Graduate/professional students.....	†	†	†	†
<b>Interdenominational Theolog Ctr</b>				
Wages and salaries .....	2.379	1.662	1.388	61.2
Other institutional spending .....	1.368	0.598	0.400	9.1
Undergraduate students .....	†	†	†	†
Graduate/professional students.....	1.599	1.018	0.578	19.6
<b>Jarvis Christian College</b>				
Wages and salaries .....	2.298	1.556	1.309	73.7
Other institutional spending .....	1.343	0.500	0.303	8.9
Undergraduate students .....	1.516	0.936	0.504	21.2
Graduate/professional students.....	†	†	†	†
<b>Johnson C. Smith University</b>				
Wages and salaries .....	2.304	1.584	1.331	69.9
Other institutional spending .....	1.273	0.488	0.316	8.0
Undergraduate students .....	1.509	0.945	0.518	20.1
Graduate/professional students.....	†	†	†	†
<b>Lane College</b>				
Wages and salaries .....	2.190	1.459	1.255	131.7
Other institutional spending .....	1.145	0.287	0.196	6.1
Undergraduate students .....	1.373	0.856	0.458	22.2
Graduate/professional students.....	†	†	†	†
<b>Le Moyne-Owen College</b>				
Wages and salaries .....	2.358	1.623	1.366	56.8
Other institutional spending .....	1.345	0.496	0.337	9.3
Undergraduate students .....	1.553	0.970	0.537	20.4
Graduate/professional students.....	†	†	†	†
<b>Livingstone College</b>				
Wages and salaries .....	2.140	1.363	1.202	77.7
Other institutional spending .....	1.133	0.298	0.201	6.3
Undergraduate students .....	1.316	0.806	0.433	20.6
Graduate/professional students.....	1.320	0.804	0.439	20.5
<b>Meharry Medical College</b>				
Wages and salaries .....	2.385	1.650	1.389	52.9
Other institutional spending .....	1.357	0.512	0.359	9.4
Undergraduate students .....	1.597	0.997	0.558	21.1
Graduate/professional students.....	1.603	1.003	0.570	21.0

(See notes at end of table.)

**Table A-4. Economic multipliers for *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Miles College</b>				
Wages and salaries .....	2.286	1.559	1.318	102.5
Other institutional spending .....	1.253	0.456	0.294	8.3
Undergraduate students .....	1.489	0.929	0.506	21.9
Graduate/professional students.....	†	†	†	†
<b>Morehouse College</b>				
Wages and salaries .....	2.379	1.662	1.388	54.0
Other institutional spending .....	1.368	0.598	0.400	9.1
Undergraduate students .....	1.592	1.012	0.565	19.8
Graduate/professional students.....	†	†	†	†
<b>Morehouse School of Medicine</b>				
Wages and salaries .....	2.379	1.662	1.388	46.9
Other institutional spending .....	1.368	0.598	0.400	9.1
Undergraduate students .....	†	†	†	†
Graduate/professional students.....	1.599	1.018	0.578	19.5
<b>Morris Brown College</b>				
Wages and salaries .....	2.379	1.662	1.388	62.2
Other institutional spending .....	1.368	0.598	0.400	9.1
Undergraduate students .....	1.592	1.012	0.565	19.8
Graduate/professional students.....	†	†	†	†
<b>Morris College</b>				
Wages and salaries .....	2.165	1.398	1.229	77.7
Other institutional spending .....	1.120	0.251	0.166	5.8
Undergraduate students .....	1.343	0.818	0.439	22.7
Graduate/professional students.....	†	†	†	†
<b>Oakwood College</b>				
Wages and salaries .....	2.199	1.453	1.250	66.8
Other institutional spending .....	1.193	0.356	0.249	7.8
Undergraduate students .....	1.400	0.840	0.459	22.8
Graduate/professional students.....	†	†	†	†
<b>Paine College</b>				
Wages and salaries .....	2.269	1.523	1.292	88.1
Other institutional spending .....	1.259	0.458	0.294	9.1
Undergraduate students .....	1.482	0.913	0.493	22.9
Graduate/professional students.....	†	†	†	†
<b>Paul Quinn College</b>				
Wages and salaries .....	2.381	1.653	1.377	73.1
Other institutional spending .....	1.433	0.675	0.440	9.6
Undergraduate students .....	1.616	1.028	0.572	19.1
Graduate/professional students.....	†	†	†	†

(See notes at end of table.)

**Table A-4. Economic multipliers for *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Philander Smith College</b>				
Wages and salaries .....	2.291	1.543	1.311	76.4
Other institutional spending .....	1.260	0.432	0.281	9.1
Undergraduate students .....	1.497	0.910	0.494	24.2
Graduate/professional students.....	†	†	†	†
<b>Rust College</b>				
Wages and salaries .....	2.358	1.623	1.366	91.0
Other institutional spending .....	1.345	0.496	0.337	9.4
Undergraduate students .....	1.553	0.970	0.537	20.4
Graduate/professional students.....	†	†	†	†
<b>Saint Augustine's College</b>				
Wages and salaries .....	2.251	1.528	1.293	58.2
Other institutional spending .....	1.227	0.446	0.287	7.5
Undergraduate students .....	1.447	0.909	0.492	21.0
Graduate/professional students.....	†	†	†	†
<b>Saint Paul's College</b>				
Wages and salaries .....	2.061	1.222	1.110	116.2
Other institutional spending .....	1.061	0.163	0.126	4.7
Undergraduate students .....	1.216	0.730	0.392	25.3
Graduate/professional students.....	†	†	†	†
<b>Shaw University</b>				
Wages and salaries .....	2.251	1.528	1.293	91.5
Other institutional spending .....	1.227	0.446	0.287	7.5
Undergraduate students .....	1.447	0.909	0.492	21.0
Graduate/professional students.....	1.452	0.915	0.504	20.5
<b>Southwestern Christian College</b>				
Wages and salaries .....	2.381	1.653	1.377	107.2
Other institutional spending .....	1.433	0.675	0.440	9.8
Undergraduate students .....	1.616	1.028	0.572	19.2
Graduate/professional students.....	†	†	†	†
<b>Spelman College</b>				
Wages and salaries .....	2.379	1.662	1.388	65.9
Other institutional spending .....	1.368	0.598	0.400	9.1
Undergraduate students .....	1.592	1.012	0.565	19.8
Graduate/professional students.....	†	†	†	†
<b>Stillman College</b>				
Wages and salaries .....	2.187	1.419	1.224	78.5
Other institutional spending .....	1.210	0.337	0.203	6.7
Undergraduate students .....	1.385	0.829	0.439	23.6
Graduate/professional students.....	†	†	†	†

(See notes at end of table.)

**Table A-4. Economic multipliers for *not-for-profit* Historically Black Colleges and Universities: 2001**  
— Continued

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Talladega College</b>				
Wages and salaries .....	2.131	1.354	1.190	43.8
Other institutional spending .....	1.115	0.249	0.162	5.7
Undergraduate students .....	1.306	0.776	0.404	22.8
Graduate/professional students.....	†	†	†	†
<b>Texas College</b>				
Wages and salaries .....	2.274	1.543	1.305	76.3
Other institutional spending .....	1.312	0.459	0.289	8.2
Undergraduate students .....	1.486	0.919	0.496	20.7
Graduate/professional students.....	†	†	†	†
<b>Tougaloo College</b>				
Wages and salaries .....	2.261	1.503	1.286	84.2
Other institutional spending .....	1.259	0.369	0.247	8.0
Undergraduate students .....	1.455	0.883	0.475	22.2
Graduate/professional students.....	†	†	†	†
<b>Tuskegee University</b>				
Wages and salaries .....	2.054	1.210	1.096	45.5
Other institutional spending .....	1.054	0.143	0.102	4.0
Undergraduate students .....	1.181	0.703	0.350	26.3
Graduate/professional students.....	1.183	0.702	0.359	25.6
<b>Virginia Union University</b>				
Wages and salaries .....	2.309	1.583	1.334	73.3
Other institutional spending .....	1.290	0.502	0.336	8.8
Undergraduate students .....	1.514	0.943	0.517	21.6
Graduate/professional students.....	1.519	0.948	0.529	21.4
<b>Voorhees College</b>				
Wages and salaries .....	2.075	1.272	1.138	116.4
Other institutional spending .....	1.075	0.227	0.139	5.9
Undergraduate students .....	1.228	0.741	0.381	26.9
Graduate/professional students.....	†	†	†	†
<b>Wilberforce University</b>				
Wages and salaries .....	2.267	1.527	1.309	79.3
Other institutional spending .....	1.234	0.420	0.293	8.3
Undergraduate students .....	1.464	0.901	0.496	22.4
Graduate/professional students.....	†	†	†	†
<b>Wiley College</b>				
Wages and salaries .....	2.167	1.413	1.216	100.1
Other institutional spending .....	1.198	0.405	0.242	6.4
Undergraduate students .....	1.369	0.845	0.443	20.2
Graduate/professional students.....	†	†	†	†

(See notes at end of table.)

**Table A-4. Economic multipliers for *not-for-profit* Historically Black Colleges and Universities: 2001**  
—Continued

Institution	Economic output multiplier	Economic value-added multiplier	Economic labor income multiplier	Economic employment multiplier
<b>Xavier University of Louisiana</b>				
Wages and salaries .....	2.318	1.578	1.331	50.7
Other institutional spending .....	1.360	0.517	0.319	9.3
Undergraduate students .....	1.533	0.948	0.516	21.6
Graduate/professional students.....	1.538	0.950	0.526	21.6
<b>2-year</b>				
<b>Clinton Junior College</b>				
Wages and salaries .....	2.304	1.584	1.331	73.5
Other institutional spending .....	1.273	0.488	0.316	8.2
Undergraduate students .....	1.501	0.945	0.518	19.1
Graduate/professional students.....	†	†	†	†
<b>Lewis College of Business</b>				
Wages and salaries .....	2.320	1.588	1.345	75.4
Other institutional spending .....	1.322	0.544	0.369	8.8
Undergraduate students .....	1.542	0.974	0.543	19.9
Graduate/professional students.....	†	†	†	†
<b>Mary Holmes College</b>				
Wages and salaries .....	2.169	1.400	1.219	136.9
Other institutional spending .....	1.157	0.294	0.199	7.1
Undergraduate students .....	1.355	0.812	0.433	24.0
Graduate/professional students.....	†	†	†	†

† Not applicable.

NOTE: Economic multipliers for output, value-added, and labor income are expressed in dollar amounts to the nearest third decimal whereas multipliers for employment are reported to the first decimal. This reflects fundamental differences in how multipliers are used and what they represent. The output, value-added, and labor income multipliers are applied against dollar amounts and generate impact estimates in terms of dollar amounts. The employment multipliers are applied against \$1,000,000 amounts and generate economic impact estimates that are measured in terms of jobs. Output refers to the value of total production, including domestic and foreign trade. Value-added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs.

SOURCE: The multipliers for output, value-added, labor income, and employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and production functions provided by MIG. Inc. Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.



**Table A-5. Total employment impact of Historically Black Colleges and Universities as a share of their regional economies: 2001**

Institution	HBCU's aggregate employment impact (jobs)	HBCU's share of regional employment (percent)
<b>Public HBCUs</b> .....	114,835	†
<b>4-year</b> .....	105,482	†
Alabama A & M University .....	3,482	1.5
Alabama State University .....	3,366	1.6
Albany State University .....	2,031	2.4
Alcorn State University .....	2,347	9.2
Bluefield State College .....	1,197	2.4
Bowie State University .....	2,228	0.1
Central State University .....	1,332	0.2
Cheyney University of Pennsylvania .....	1,045	#
Coppin State College .....	1,913	0.1
Delaware State University .....	2,110	2.7
Elizabeth City State University .....	1,419	5.5
Fayetteville State University .....	2,372	1.2
Florida Agricultural and Mechanical University .....	6,818	3.0
Fort Valley State University .....	1,470	14.3
Grambling State University .....	3,047	10.0
Harris-Stowe State College .....	869	0.1
Jackson State University .....	4,509	1.4
Kentucky State University .....	1,857	3.4
Langston University .....	1,659	0.2
Lincoln University (MO) .....	1,630	1.5
Lincoln University (PA) .....	1,459	#
Mississippi Valley State University .....	1,666	7.2
Morgan State University .....	4,745	0.3
NC Agricultural and Technical St Univ .....	5,036	1.1
Norfolk State University .....	3,855	0.4
North Carolina Central University .....	3,128	1.0
Prairie View A & M University .....	3,715	0.1
Savannah State University .....	1,548	0.9
South Carolina State University .....	2,575	5.7
Southern University and A & M College .....	5,607	1.2
Southern University at New Orleans .....	1,794	0.2
Tennessee State University .....	4,896	0.5
Texas Southern University .....	4,330	0.1
University of Arkansas at Pine Bluff .....	2,133	4.2
University of the District of Columbia .....	3,038	0.1
University of DC Clarke School of Law .....	159	#
University of Maryland-Eastern Shore .....	2,392	3.8
Virginia State University .....	2,754	0.4
West Virginia State College .....	2,028	1.1
Winston-Salem State University .....	1,923	0.7

(See notes at end of table.)

**Table A-5. Total employment impact of Historically Black Colleges and Universities as a share of their regional economies: 2001—Continued**

Institution	HBCU's aggregate employment impact (jobs)	HBCU's share of regional employment (percent)
<b>2-year .....</b>	9,353	†
Bishop State Community College .....	1,651	0.7
Coahoma Community College .....	623	4.4
Denmark Technical College .....	478	6.4
Gadsden State Community College.....	2,042	2.6
J F Drake State Technical College.....	262	0.1
Lawson State Community College .....	795	0.1
Shelton State Community College-C A Fredd.....	111	0.1
Southern University at Shreveport.....	679	0.3
St Philips College .....	2,301	0.2
Trenholm State Technical College .....	411	0.2
<b>Not-for-profit HBCUs .....</b>	65,307	†
<b>4-year .....</b>	64,785	†
Allen University .....	349	0.1
Arkansas Baptist College .....	146	#
Barber-Scotia College .....	347	#
Benedict College .....	1,665	0.4
Bennett College.....	667	0.2
Bethune Cookman College.....	2,053	1.2
Claflin University.....	812	1.8
Clark Atlanta University.....	2,672	0.1
Concordia College.....	312	1.4
Dillard University.....	1,449	0.2
Edward Waters College.....	787	0.1
Fisk University .....	667	0.1
Florida Memorial College .....	1,320	#
Hampton University .....	4,377	0.4
Howard University .....	14,613	0.4
Huston-Tillotson College .....	444	#
Interdenominational Theological Center .....	296	#
Jarvis Christian College.....	529	0.4
Johnson C Smith University.....	1,080	0.1
Lane College .....	585	0.8
Le Moyne-Owen College .....	485	0.1
Livingstone College .....	592	1.0
Meharry Medical College.....	2,974	0.3
Miles College .....	860	0.1
Morehouse College.....	1,952	0.1
Morehouse School of Medicine.....	2,559	0.1
Morris Brown College.....	1,829	0.1
Morris College.....	645	1.2

(See notes at end of table.)

**Table A-5. Total employment impact of Historically Black Colleges and Universities as a share of their regional economies: 2001—Continued**

Institution	HBCU's aggregate employment impact (jobs)	HBCU's share of regional employment (percent)
Oakwood College.....	1,186	0.5
Paine College.....	638	0.2
Paul Quinn College.....	569	#
Philander Smith College.....	502	0.1
Rust College.....	571	0.1
Saint Augustine's College.....	856	0.2
Saint Paul's College.....	424	6.2
Shaw University.....	1,464	0.3
Southwestern Christian College.....	183	#
Spelman College.....	1,778	0.1
Stillman College.....	883	0.8
Talladega College.....	459	1.3
Texas College.....	341	0.3
Tougaloo College.....	788	0.2
Tuskegee University.....	2,147	23.6
Virginia Union University.....	750	0.1
Voorhees College.....	554	7.4
Wilberforce University.....	729	0.1
Wiley College.....	472	1.6
Xavier University of Louisiana.....	2,425	0.3
<b>2-year.....</b>	<b>522</b>	<b>†</b>
Clinton Junior College.....	36	#
Lewis College of Business.....	157	#
Mary Holmes College.....	329	0.5

# Rounds to zero.

† Not applicable.

NOTE: Employment includes both full-time and part-time jobs. HBCU's share of their regional economy is rounded to the nearest full percentage.

SOURCE: The impacts of spending on employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and production functions provided by MIG, Inc. Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.



**Appendix B**  
**A Template for Public HBCUs**

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Appendix B provides a template to estimate the economic impact of each public HBCU in 2002, 2003, and 2004. This template relies on simple multipliers derived from the more precise model-based estimates calculated for 2001. The template multipliers for public HBCUs are reported in table D-1. Although economic impact estimates based on the template will be less accurate than estimates generated by an updated regional input-output model, they provide an inexpensive and relatively easy way to update the results reported for 2001.

The template for public institutions consists of six parts. Part 1 estimates the economic impacts of spending by the institutions themselves for wages and salaries paid to employees. Part 2 estimates the economic impacts of spending by the institutions for everything except wages and salaries. Part 3 estimates the economic impacts of spending by undergraduate students who attend the institutions. Part 4 estimates the economic impacts of spending by graduate and professional students who attend the institutions. Part 5 provides an aggregation of the economic impacts for all categories of spending in terms of output, value-added, labor income, and employment. Finally, detailed instructions for using the template are provided in Part 6.

**Economic Impact Template for *Public* HBCUs**

**NOTE: Terminology and line references may vary for 2002, 2003, and 2004.**

**Part 1: Estimating the Regional Economic Impact of HBCUs' Spending for Wages & Salaries**

- |                                                                                                                                                                                                                                 |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. Initial Spending. Total Salaries and Wages, Expenditures                                                                                                                                                                     | 1. _____  |
| 2. Output Multiplier. See Column 1 of Table D-1                                                                                                                                                                                 | 2. _____  |
| 3. Output Impact. Multiply line 1 by line 2                                                                                                                                                                                     | 3. _____  |
| 4. Value-Added Multiplier. See Column 2 of Table D-1                                                                                                                                                                            | 4. _____  |
| 5. Value-Added Impact. Multiply line 1 by line 4                                                                                                                                                                                | 5. _____  |
| 6. Labor Income Multiplier. See Column 3 of Table D-1                                                                                                                                                                           | 6. _____  |
| 7. Labor Income Impact. Multiply line 1 by line 6                                                                                                                                                                               | 7. _____  |
| 8. Employment multiplier:<br>If finance data are for FY 2002 then see Column 4 of Table D-1<br>If finance data are for FY 2003 then see Column 5 of Table D-1<br>If finance data are for FY 2004 then see Column 6 of Table D-1 | 8. _____  |
| 9. Initial Spending in millions of dollars.<br>Divide line 1 by 1,000,000                                                                                                                                                       | 9. _____  |
| 10. Employment Impact: Multiply line 9 by line 8                                                                                                                                                                                | 10. _____ |

**Part 2: Estimating the Regional Economic Impact of HBCUs' Spending for Other Items (e.g., not Wages and Salaries)**

- |                                                                                                                                                                                                                                  |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 11. Total Current Funds Expenditures & Transfers                                                                                                                                                                                 | 11. _____ |
| 12. Auxiliary Enterprises, Expenditures                                                                                                                                                                                          | 12. _____ |
| 13. Scholarships & Fellowships, Expenditures                                                                                                                                                                                     | 13. _____ |
| 14. Line 1                                                                                                                                                                                                                       | 14. _____ |
| 15. Initial Spending for Other.<br>Subtract lines 12, 13, and 14 from line 11                                                                                                                                                    | 15. _____ |
| 16. Output Multiplier. See Column 1 of Table D-1                                                                                                                                                                                 | 16. _____ |
| 17. Output Impact. Multiply line 15 by line 16                                                                                                                                                                                   | 17. _____ |
| 18. Value-Added Multiplier. See Column 2 of Table D-1                                                                                                                                                                            | 18. _____ |
| 19. Value-Added Impact. Multiply line 15 by line 18                                                                                                                                                                              | 19. _____ |
| 20. Labor Income Multiplier. See Column 3 of Table D-1                                                                                                                                                                           | 20. _____ |
| 21. Labor Income Impact: Multiply line 15 by line 20                                                                                                                                                                             | 21. _____ |
| 22. Employment multiplier.<br>If finance data are for FY 2002 then see Column 4 of Table D-1<br>If finance data are for FY 2003 then see Column 5 of Table D-1<br>If finance data are for FY 2004 then see Column 6 of Table D-1 | 22. _____ |
| 23. Initial Spending in millions of dollars.<br>Divide line 15 by 1,000,000                                                                                                                                                      | 23. _____ |
| 24. Employment Impact. Multiply line 23 by line 22                                                                                                                                                                               | 24. _____ |



**Part 3: Estimating the Regional Economic Impact of Spending by Undergraduate Students**

- 25. Full-time Undergraduate Fall Enrollment 25. \_\_\_\_\_
- 26. Part-time Undergraduate Fall Enrollment 26. \_\_\_\_\_
- 27. Multiply line 26 by 0.5 27. \_\_\_\_\_
- 28. Adjusted Enrollment. Add line 25 and line 27 28. \_\_\_\_\_
- 29. Annual Spending per Student  
 If enrollment is for fall 2002 then enter \$10,348  
 If enrollment is for fall 2003 then enter \$10,576  
 If enrollment is for fall 2004 then enter \$10,893 29. \_\_\_\_\_
- 30. Initial Spending by Undergraduate Students.  
 Multiply line 28 by line 29 30. \_\_\_\_\_
- 31. Output Multiplier. See Column 1 of Table D-1 31. \_\_\_\_\_
- 32. Output Impact. Multiply line 30 by line 31 32. \_\_\_\_\_
- 33. Value-Added Multiplier. See Column 2 of Table D-1 33. \_\_\_\_\_
- 34. Value-Added Impact. Multiply line 30 by line 33 34. \_\_\_\_\_
- 35. Labor Income Multiplier. See Column 3 of Table D-1 35. \_\_\_\_\_
- 36. Labor Income Impact. Multiply line 30 by line 35 36. \_\_\_\_\_
- 37. Employment Multiplier  
 If enrollment is for fall 2002 then see Column 4 of Table D-1  
 If enrollment is for fall 2003 then see Column 5 of Table D-1  
 If enrollment is for fall 2004 then see Column 6 of Table D-1 37. \_\_\_\_\_
- 38. Initial Spending in millions of dollars.  
 Divide line 30 by 1,000,000 38. \_\_\_\_\_
- 39. Employment Impact. Multiply line 38 by line 37 39. \_\_\_\_\_

**Part 4: Estimating the Regional Economic Impact of Spending by Graduate and Professional Students**

- 40. Full-time Graduate enrollment 40. \_\_\_\_\_
- 41. Part-time Graduate enrollment 41. \_\_\_\_\_
- 42. Full-time First Professional Enrollment 42. \_\_\_\_\_
- 43. Part-time First Professional Enrollment 43. \_\_\_\_\_
- 44. Multiply line 41 by 0.5 44. \_\_\_\_\_
- 45. Multiply line 43 by 0.5 45. \_\_\_\_\_
- 46. Adjusted Graduate & Professional Enrollment.  
 Add lines 40, 42, 44, and 45 46. \_\_\_\_\_
- 47. Annual Spending per Student  
 If enrollment is for fall 2002 enter \$11,213  
 If enrollment is for fall 2003 enter \$11,460  
 If enrollment is for fall 2004 enter \$11,804 47. \_\_\_\_\_
- 48. Initial Spending by Graduate & Professional Students.  
 Multiply line 46 by line 47 48. \_\_\_\_\_
- 49. Output Multiplier. See Column 1 of Table D-1 49. \_\_\_\_\_
- 50. Output Impact. Multiply line 48 by line 49 50. \_\_\_\_\_
- 51. Value-Added Multiplier. See Column 2 of Table D-1 51. \_\_\_\_\_
- 52. Value-Added Impact. Multiply line 48 by line 51 52. \_\_\_\_\_
- 53. Labor Income Multiplier. See Column 3 of Table D-1 53. \_\_\_\_\_
- 54. Labor Income Impact. Multiply line 48 by line 53 54. \_\_\_\_\_
- 55. Employment Multiplier

- If enrollment is for fall 2002 see Column 4 of Table D-1
- If enrollment is for fall 2003 see Column 5 of Table D-1
- If enrollment is for fall 2004 see Column 6 of Table D-1
- 55. \_\_\_\_\_
- 56. Initial Spending in millions of dollars. \_\_\_\_\_
- Divide line 48 by 1,000,000 \_\_\_\_\_
- 57. Employment Impact. Multiply line 56 by line 55 \_\_\_\_\_

**Part 5: Estimating the Total Regional Economic Impact of All Spending**

- 58. Initial Spending for Wages and Salaries. Line 1 \_\_\_\_\_
- 59. Initial Spending for Other. Line 15 \_\_\_\_\_
- 60. Initial Spending by Undergraduates. Line 30 \_\_\_\_\_
- 61. Initial Spending by Graduate and Professional Students. Line 48 \_\_\_\_\_
- 62. Total Initial Spending. Add lines 58, 59, 60, and 61 \_\_\_\_\_
- 63. Output Impact of Spending for Wages and Salaries. Line 3 \_\_\_\_\_
- 64. Output Impact of Spending for Other. Line 17 \_\_\_\_\_
- 65. Output Impact of Spending by Undergraduates. Line 32 \_\_\_\_\_
- 66. Output Impact of Spending by Graduate & Professional Students. Line 50 \_\_\_\_\_
- 67. Total Output Impact. Add lines 63, 64, 65, and 66 \_\_\_\_\_
- 68. Value-Added Impact of Spending for Wages and Salaries. Line 5 \_\_\_\_\_
- 69. Value-Added Impact of Spending for Other. Line 19 \_\_\_\_\_
- 70. Value-Added Impact of Spending by Undergraduates. Line 34 \_\_\_\_\_
- 71. Value-Added Impact of Spending by Graduate and Professional Students. Line 52 \_\_\_\_\_
- 72. Total Value-Added Impact. Add lines 68, 69, 70, and 71 \_\_\_\_\_
- 73. Labor Income Impact of Spending for Wages and Salaries. Line 7 \_\_\_\_\_
- 74. Labor Income Impact of Spending for Other. Line 21 \_\_\_\_\_
- 75. Labor Income Impact of Spending by Undergraduates. Line 36 \_\_\_\_\_
- 76. Labor Income Impact of Spending by Graduate & Professional Students. Line 54 \_\_\_\_\_
- 77. Total Labor Income Impact. Add lines 73, 74, 75, and 76 \_\_\_\_\_
- 78. Employment Impact of Spending for Wages and Salaries. Line 10 \_\_\_\_\_
- 79. Employment Impact of Spending for Other. Line 24 \_\_\_\_\_
- 80. Employment Impact of Spending by Undergraduates. Line 39 \_\_\_\_\_
- 81. Employment Impact of Spending by Graduate and Professional Students. Line 57 \_\_\_\_\_
- 82. Total Employment Impact. Add lines 78, 79, 80, and 81 \_\_\_\_\_

**Part 6: Instructions**

**Instructions for Part 1—Estimating the Regional Economic Impact of Public HBCUs’ Spending for Wages and Salaries**

Line 1: Total expenditures for salaries and wages for your institution can be obtained either from IPEDS Finance on the IPEDS web site or from institutional records. Enter this amount on line 1.

Lines 2 and 3: Output multipliers specific to each institution’s expenditures for salaries and wages are reported in column 1 of table D-1. Enter the output multiplier for your institution on line 2. To estimate the output impact, multiply the dollar amount entered on line 1 by the multiplier entered on line 2. Enter the value on line 3.

Lines 4 and 5: Value-added multipliers specific to each institution’s expenditures for wages and salaries are reported in column 2 of table D-1. Enter the value-added multiplier for your institution on line 4. To estimate the value-added impact, multiply the dollar amount entered on line 1 by the multiplier entered on line 4. Enter the value on line 5.

Lines 6 and 7: Labor income multipliers specific to each institution’s expenditures for wages and salaries are reported in column 3 of table D-1. Enter the labor income multiplier for your institution on line 6. To estimate the labor income impact, multiply the dollar amount entered on line 1 by the labor income multiplier entered on line 6. Enter the value on line 7.

Line 8: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution’s expenditures for wages and salaries are reported in columns 4, 5, and 6 of table D-1. If the wage & salary expenditures are for FY 2002, enter the employment multiplier for your institution from column 4. If the wage and salary expenditures are for FY 2003, enter the employment multiplier for your institution from column 5. If the wage and salary expenditures are for FY 2004, enter the employment multiplier for your institution from column 6.

Line 9: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 1 by 1,000,000. Enter this value on line 9.

Line 10: To estimate the employment impact, multiply the value entered on line 9 by the employment multiplier entered on line 8. Enter the result on line 10.

**Instructions for Part 2—Estimating the Regional Economic Impact of HBCUs’ Spending for Other Items (e.g., not Wages and Salaries)**

Line 11: Total expenditures and transfers from current funds for your institution can be obtained from either the IPEDS Finance data on the IPEDS web site or institutional records. Enter this amount on line 11.

Lines 12, 13, and 14: To avoid double counting economic activity, expenditures by auxiliary enterprises and expenditures for scholarships and fellowships must be subtracted from total expenditures and transfers. Expenditures by auxiliary enterprises can be obtained from either the IPEDS Finance data on the IPEDS web site or institutional records. Enter this amount on line 12. Expenditures for scholarships and fellowships can be obtained from either the IPEDS Finance data on the IPEDS web site or institutional records. Enter this amount on line 13.

Line 14: Enter the value on line 1.

Line 15: To estimate initial spending on other items, subtract the dollar amounts entered on lines 12, 13, and 14 from the dollar amount on line 11. Enter the result on line 15.

Lines 16 and 17: Output multipliers specific to each institution's expenditures for other items are reported in column 1 of table D-1. Enter the output multiplier for your institution on line 16. To estimate the output impact, multiply the dollar amount entered on line 15 by the multiplier entered on line 16. Enter the result on line 17.

Lines 18 and 19: Value-added multipliers specific to each institution's expenditures for wages and salaries are reported in column 2 of table D-1. Enter the value-added multiplier for your institution on line 18. To estimate the value-added impact, multiply the dollar amount entered on line 15 by the multiplier entered on line 18. Enter the result on line 19.

Lines 20 and 21: Labor income multipliers specific to each institution's expenditures for wages & salaries are reported in column 3 of table D-1. Enter the labor income multiplier for your institution on line 20. To estimate the labor income impact, multiply the dollar amount entered on line 15 by the labor income multiplier entered on line 20. Enter the result on line 21.

Line 22: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution's expenditures for wages & salaries are reported in columns 4, 5, and 6 of table D-1. If the wage and salary expenditures are for FY 2002, enter the employment multiplier for your institution from column 4. If the wage and salary expenditures are for FY 2003, enter the employment multiplier for your institution from column 5. If the wage and salary expenditures are for FY 2004, enter the employment multiplier for your institution from column 6.

Line 23: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 15 by 1,000,000. Enter this result on Line 23.

Line 24: To estimate the employment impact, multiply the dollar amount entered on line 23 by the employment multiplier entered on line 22. Enter the result on line 24.

**Instructions for Part 3—Estimating the Regional Economic Impact of Spending by Undergraduate Students**

Lines 25 and 26: Full-time undergraduate enrollment and part-time undergraduate enrollment can be obtained from Fall Enrollment on the IPEDS web site or from institutional records. Enter full-time undergraduate enrollment on line 25 and part-time undergraduate enrollment on line 26.

Line 27: Multiply the number of students on line 26 by 0.5 and enter the result on line 27.

Line 28: Add the number of students on line 25 to the number of students on line 27. Enter this result on line 28.

Line 29: Over time, the annual spending while attending school by the average undergraduate student increases due to the effects of inflation. Enter the dollar amount corresponding to the appropriate year on line 29.

Line 30: To estimate initial spending by undergraduates, multiply the number of undergraduate students on line 28 by the dollar amount entered on line 29. Enter the result on line 30.

Lines 31 and 32: Output multipliers specific to each institution's spending by undergraduates are reported in column 1 of table D-1. Enter the output multiplier for your institution on line 31. To estimate the output impact, multiply the dollar amount entered on line 30 by the multiplier entered on line 31. Enter the value on line 32.

Lines 33 and 34: Value-added multipliers specific to each institution's expenditures for wages and salaries are reported in column 2 of table D-1. Enter the value-added multiplier for your institution on line 33. To estimate the value-added impact, multiply the dollar amount entered on line 30 by the multiplier entered on line 33. Enter the value on line 34.

Lines 35 and 36: Labor income multipliers specific to each institution's expenditures for wages & salaries are reported in column 3 of table D-1. Enter the labor income multiplier for your institution on line 35. To estimate the labor income impact, multiply the dollar amount entered on line 30 by the labor income multiplier entered on line 35. Enter the value on line 36.

Line 37: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution's spending by undergraduates are reported in columns 4, 5, and 6 of table D-1. If enrollment is for 2002, enter the employment multiplier for your institution from column 4. If enrollment is for 2003, enter the employment multiplier for your institution from column 5. If enrollment is for FY 2004, enter the employment multiplier for your institution from column 6.

Line 38: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 30 by 1,000,000. Enter this value on line 38.

Line 39: To estimate the employment impact, multiply the value entered on line 38 by the employment multiplier entered on line 37. Enter the result on line 39.

**Instructions for Part 4—Estimating the Regional Economic Impact of Spending by Graduate and Professional Students**

Lines 40 and 41: Full-time graduate and part-time graduate enrollment can be obtained from the Fall Enrollment data on the IPEDS web site or from institutional records. Enter full-time graduate enrollment on line 40. Enter part-time graduate enrollment on line 41.

Lines 42 and 43: Full-time first professional and part-time first professional enrollment can be obtained from the Fall Enrollment data on the IPEDS web site or from institutional records. Enter full-time first professional enrollment on line 42. Enter part-time first professional enrollment on line 43.

Line 44: Multiply the number of students on line 41 by 0.5 and enter the result on line 44.

Line 45: Multiply the number of students on line 43 by 0.5 and enter the result on line 45.

Line 46: Add the number of students on lines 40, 42, 44, and 45. Enter the result on line 46.

Line 47: Over time, the annual spending while attending school by the average graduate or professional student increases due to the effects of inflation. Enter the dollar amount corresponding to the appropriate year on line 47.

Line 48: To estimate initial spending by graduate and first professional students, multiply the number of students on line 46 by the dollar amount entered on line 47. Enter the result on line 48.

Lines 49 and 50: Output multipliers specific to each institution's spending by graduate and first professional students are reported in column 1 of table D-1. Enter the output multiplier for your institution on line 49. To estimate the output impact, multiply the dollar amount entered on line 48 by the multiplier entered on line 49. Enter the result on line 50.

Lines 51 and 52: Value-added multipliers specific to each institution's expenditures for wages and salaries are reported in column 2 of table D-1. Enter the value-added multiplier for your institution on line 51. To estimate the value-added impact, multiply the dollar amount entered on line 48 by the multiplier entered on line 51. Enter the result on line 52.

Lines 53 and 54: Labor income multipliers specific to each institution's expenditures for wages & salaries are reported in column 3 of table D-1. Enter the labor income multiplier for your institution on line 53. To estimate the labor income impact, multiply the dollar amount entered on line 48 by the labor income multiplier entered on line 53. Enter the result on line 54.

Line 55: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution's expenditures by graduate and professional students are reported in columns 4, 5, and 6 of table D-1. If enrollment is for 2002, enter the employment multiplier for your institution from column 4. If enrollment is for 2003, enter the employment multiplier for your institution from column 5. If enrollment is for 2004, enter the employment multiplier for your institution from column 6.

Line 56: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 48 by 1,000,000. Enter this value on Line 56.

Line 57: To estimate the employment impact, multiply the value entered on line 56 by the employment multiplier entered on line 55. Enter the result on line 57.

**Instructions for Part 5—Estimating the Total Regional Economic Impact of All Spending**

Lines 58, 59, 60, 61, and 62: On line 58, enter the dollar amount on line 1. On line 59, enter the dollar amount on line 15. On line 60, enter the dollar amount on line 30. On line 61, enter the dollar amount on line 48. Add the amounts on lines 58, 59, 60, and 61. Enter the result on line 62.

Lines 63, 64, 65, 66, and 67: On line 63, enter the dollar amount on line 3. On line 64, enter the dollar amount on line 17. On line 65, enter the dollar amount on line 32. On line 66, enter the dollar amount on line 50. Add the amounts on lines 63, 64, 65, and 66. Enter the result on line 67.

Lines 68, 69, 70, 71, and 72: On line 68, enter the dollar amount on line 5. On line 69, enter the dollar amount on line 19. On line 70, enter the dollar amount on line 34. On line 71, enter the dollar amount on line 52. Add the amounts on lines 68, 69, 70, and 71. Enter the result on line 72.

Lines 73, 74, 75, 76, and 77: On line 73, enter the dollar amount on line 7. On line 74, enter the dollar amount on line 21. On line 75, enter the dollar amount on line 36. On line 76, enter the dollar amount on line 54. Add the amounts on lines 73, 74, 75, and 76. Enter the result on line 77.

Lines 78, 79, 80, 81, and 82: On line 78, enter the number of jobs from line 10. On line 79, enter the number of jobs from line 24. On line 80, enter the number of jobs from line 39. On line 81, enter the number of jobs from line 57. Add the amounts on lines 78, 79, 80, and 81. Enter the result on line 82.





**Appendix C**  
**A Template for Not-for-Profit HBCUs**

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Appendix C provides a template to estimate the economic impact of each private, not-for-profit HBCU for 2002, 2003, and 2004. This template relies on simple multipliers derived from the more precise model-based estimates calculated for 2001. The template multipliers for private, not-for-profit HBCUs are reported in table D-2. Although economic impact estimates based on the template will be less accurate than estimates generated by an updated regional input-output model, they provide an inexpensive and relatively easy way to update the results reported for 2001.

The template for private, not-for-profit institutions consists of six parts. Part 1 estimates the economic impacts of spending by the institutions themselves for wages and salaries paid to employees. Part 2 estimates the economic impacts of spending by the institutions for except wages and salaries. Part 3 estimates the economic impacts of spending by undergraduate students who attend the institutions. Part 4 estimates the economic impacts of spending by graduate and professional students who attend the institutions. Part 5 provides total economic impacts in terms of output, value-added, labor income, and employment. Finally, detailed instructions for using the template are provided in Part 6.

**Economic Impact Template for *Not-for-Profit* HBCUs**  
**NOTE: Terminology and line references may vary for 2002, 2003, and 2004.**

**Part 1: Estimating the Regional Economic Impact of HBCUs' Spending for Wages & Salaries**

- |                                                                                                                                                                                                                                  |     |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--|
| 1. Total Salaries and Wages                                                                                                                                                                                                      | 1.  |  |
| 2. Auxiliary Enterprises, Salaries and Wages                                                                                                                                                                                     | 2.  |  |
| 3. Net Grant Aid to Students, Salaries and Wages                                                                                                                                                                                 | 3.  |  |
| 4. Subtract line 2 from line 1                                                                                                                                                                                                   | 4.  |  |
| 5. Initial Spending for Wages and Salaries.<br>Subtract line 3 from line 4                                                                                                                                                       | 5.  |  |
| 6. Output Multiplier. See Column 1 of Table D-2                                                                                                                                                                                  | 6.  |  |
| 7. Output Impact. Multiply line 5 by line 6                                                                                                                                                                                      | 7.  |  |
| 8. Value-Added Multiplier. See Column 2 of Table D-2                                                                                                                                                                             | 8.  |  |
| 9. Value-Added Impact. Multiply line 5 by line 8                                                                                                                                                                                 | 9.  |  |
| 10. Labor Income Multiplier. See Column 3 of Table D-2                                                                                                                                                                           | 10. |  |
| 11. Labor Income Impact. Multiply line 5 by line 10                                                                                                                                                                              | 11. |  |
| 12. Employment multiplier:<br>If finance data are for FY 2002 then see Column 4 of Table D-2<br>If finance data are for FY 2003 then see Column 5 of Table D-2<br>If finance data are for FY 2004 then see Column 6 of Table D-2 | 12. |  |
| 13. Initial Spending in millions of dollars.<br>Divide line 5 by 1,000,000                                                                                                                                                       | 13. |  |
| 14. Employment Impact: Multiply line 13 by line 12                                                                                                                                                                               | 14. |  |

**Part 2: Estimating the Regional Economic Impact of HBCUs' Spending for Other Items (e.g., not Wages & Salaries)**

- |                                                                                                                                                                                                                                  |     |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--|
| 15. Total Expenses                                                                                                                                                                                                               | 15. |  |
| 16. Expenses for Auxiliary Enterprises                                                                                                                                                                                           | 16. |  |
| 17. Expenses for Net Grant Aid to Students                                                                                                                                                                                       | 17. |  |
| 18. Subtract line 16 from line 15                                                                                                                                                                                                | 18. |  |
| 19. Subtract line 17 from line 18                                                                                                                                                                                                | 19. |  |
| 20. Initial Spending for Other. Subtract line 5 from line 19                                                                                                                                                                     | 20. |  |
| 21. Output Multiplier. See Column 1 of Table D-2                                                                                                                                                                                 | 21. |  |
| 22. Output Impact. Multiply line 20 by line 21                                                                                                                                                                                   | 22. |  |
| 23. Value-Added Multiplier. See Column 2 of Table D-2                                                                                                                                                                            | 23. |  |
| 24. Value-Added Impact. Multiply line 20 by line 23                                                                                                                                                                              | 24. |  |
| 25. Labor Income Multiplier. See Column 3 of Table D-2                                                                                                                                                                           | 25. |  |
| 26. Labor Income Impact: Multiply line 20 by line 25                                                                                                                                                                             | 26. |  |
| 27. Employment Multiplier.<br>If finance data are for FY 2002 then see Column 4 of Table D-2<br>If finance data are for FY 2003 then see Column 5 of Table D-2<br>If finance data are for FY 2004 then see Column 6 of Table D-2 | 27. |  |

- 28. Initial Spending in millions of dollars.  
Divide line 20 by 1,000,000 28. \_\_\_\_\_
- 29. Employment Impact. Multiply line 28 by line 27 29. \_\_\_\_\_

**Part 3: Estimating the Regional Economic Impact of Spending by Undergraduate Students**

- 30. Full-time Undergraduate Enrollment 30. \_\_\_\_\_
- 31. Part-time Undergraduate Enrollment 31. \_\_\_\_\_
- 32. Multiply line 31 by 0.5 32. \_\_\_\_\_
- 33. Adjusted Enrollment. Add line 30 and line 32 33. \_\_\_\_\_
- 34. Annual Spending per Student  
If enrollment is for fall 2002 then enter \$10,348  
If enrollment is for fall 2003 then enter \$10,576  
If enrollment is for fall 2004 then enter \$10,893 34. \_\_\_\_\_
- 35. Initial Spending by Undergraduate Students.  
Multiply line 33 by line 34 35. \_\_\_\_\_
- 36. Output Multiplier. See Column 1 of Table D-2 36. \_\_\_\_\_
- 37. Output Impact. Multiply line 35 by line 36 37. \_\_\_\_\_
- 38. Value-Added Multiplier. See Column 2 of Table D-2 38. \_\_\_\_\_
- 39. Value-Added Impact. Multiply line 35 by line 38 39. \_\_\_\_\_
- 40. Labor Income Multiplier. See Column 3 of Table D-2 40. \_\_\_\_\_
- 41. Labor Income Impact. Multiply line 35 by line 40 41. \_\_\_\_\_
- 42. Employment Multiplier  
If enrollment is for fall 2002 then see Column 4 of Table D-2  
If enrollment is for fall 2003 then see Column 5 of Table D-2  
If enrollment is for fall 2004 then see Column 6 of Table D-2 42. \_\_\_\_\_
- 43. Initial Spending in millions of dollars.  
Divide line 35 by 1,000,000 43. \_\_\_\_\_
- 44. Employment Impact. Multiply line 43 by line 42 44. \_\_\_\_\_

**Part 4: Estimating the Regional Economic Impact of Spending by Graduate and Professional Students**

- 45. Full-time Graduate Enrollment 45. \_\_\_\_\_
- 46. Part-time Graduate Enrollment 46. \_\_\_\_\_
- 47. Full-time First Professional Enrollment 47. \_\_\_\_\_
- 48. Part-time First Professional Enrollment 48. \_\_\_\_\_
- 49. Multiply line 46 by 0.5 49. \_\_\_\_\_
- 50. Multiply line 48 by 0.5 50. \_\_\_\_\_
- 51. Adjusted Graduate and Professional Enrollment.  
Add lines 45, 47, 49, and 50 51. \_\_\_\_\_
- 52. Annual Spending per Student  
If enrollment is for fall 2002 enter \$11,213  
If enrollment is for fall 2003 enter \$11,460  
If enrollment is for fall 2004 enter \$11,804 52. \_\_\_\_\_
- 53. Initial Spending by Graduate and Professional Students.  
Multiply line 51 by line 52 53. \_\_\_\_\_
- 54. Output Multiplier. See Column 1 of Table D-2 54. \_\_\_\_\_
- 55. Output Impact. Multiply line 53 by line 54 55. \_\_\_\_\_

56. Value-Added Multiplier. See Column 2 of Table D-2	56. _____
57. Value-Added Impact. Multiply line 53 by line 56	57. _____
58. Labor Income Multiplier. See Column 3 of Table D-2	58. _____
59. Labor Income Impact. Multiply line 53 by line 58	59. _____
60. Employment Multiplier If enrollment is for fall 2002 see Column 4 of Table D-2 If enrollment is for fall 2003 see Column 5 of Table D-2 If enrollment is for fall 2004 see Column 6 of Table D-2	60. _____
61. Initial Spending in millions of dollars. Divide line 53 by 1,000,000	61. _____
62. Employment Impact. Multiply line 61 by line 60	62. _____

**Part 5: Estimating the Total Regional Economic Impact of All Spending**

63. Initial Spending for Wages and Salaries. Line 5	63. _____
64. Initial Spending for Other. Line 20	64. _____
65. Initial Spending by Undergraduates. Line 35	65. _____
66. Initial Spending by Graduate and Professional Students. Line 53	66. _____
67. Total Initial Spending. Add lines 63, 64, 65, and 66	67. _____
68. Output Impact of Spending for Wages and Salaries. Line 7	68. _____
69. Output Impact of Spending for Other. Line 22	69. _____
70. Output Impact of Spending by Undergraduates. Line 37	70. _____
71. Output Impact of Spending by Graduate and Professional Students. Line 55	71. _____
72. Total Output Impact. Add lines 68, 69, 70, and 71.	72. _____
73. Value-Added Impact of Spending for Wages and Salaries. Line 9	73. _____
74. Value-Added Impact of Spending for Other. Line 24	74. _____
75. Value-Added Impact of Spending by Undergraduates. Line 39	75. _____
76. Value-Added Impact of Spending by Graduate and Professional Students. Line 57	76. _____
77. Total Value-Added Impact. Add lines 73, 74, 75, and 76	77. _____
78. Labor Income Impact of Spending for Wages and Salaries. Line 11	78. _____
79. Labor Income Impact of Spending for Other. Line 26	79. _____
80. Labor Income Impact of Spending by Undergraduates. Line 41	80. _____
81. Labor Income Impact of Spending by Graduate and Professional Students. Line 59	81. _____
82. Total Labor Income Impact. Add lines 78, 79, 80, and 81	82. _____
83. Employment Impact of Spending for Wages and Salaries. Line 14	83. _____
84. Employment Impact of Spending for Other. Line 29	84. _____
85. Employment Impact of Spending by Undergraduates. Line 44	85. _____
86. Employment Impact of Spending by Graduate and Professional Students. Line 62	86. _____
87. Total Employment Impact. Add lines 83, 84, 85, and 86	87. _____

**Part 6: Instructions**

**Instructions for Part 1—Estimating the Regional Economic Impact of *Not-for-Profit* HBCUs' Spending for Wages and Salaries**

Line 1: Total expenditures for salaries and wages for your institution can be obtained either from the IPEDS Finance data on the IPEDS web site or from institutional records. Enter this dollar amount on line 1.

Line 2: Expenditures for salaries and wages paid by auxiliary enterprises can be obtained either from the IPEDS Finance data on the IPEDS web site or from institutional records. Enter this dollar amount on line 2.

Line 3: Expenditures for net grant aid to students can be obtained either from the IPEDS Finance data on the IPEDS web site or from institutional records. Enter this dollar amount on line 3.

Line 4: Subtract line 2 from line 1. Enter this result on line 4.

Line 5: Subtract line 3 from line 4. Enter this result on line 5.

Lines 6 and 7: Output multipliers specific to each institution's expenditures for salaries and wages are reported in column 1 of table D-2. Enter the output multiplier for your institution on line 6. To estimate the output impact, multiply the dollar amount entered on line 5 by the multiplier entered on line 6. Enter the result on line 7.

Lines 8 and 9: Value-added multipliers specific to each institution's expenditures for wages and salaries are reported in column 2 of table D-2. Enter the value-added multiplier for your institution on line 8. To estimate the value-added impact, multiply the dollar amount entered on line 5 by the multiplier entered on line 8. Enter the result on line 9.

Lines 10 and 11: Labor income multipliers specific to each institution's expenditures for wages and salaries are reported in column 3 of table D-2. Enter the labor income multiplier for your institution on line 10. To estimate the labor income impact, multiply the dollar amount entered on line 5 by the labor income multiplier entered on line 10. Enter the result on line 11.

Line 12: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution's expenditures for wages & salaries are reported in columns 4, 5, and 6 of table D-2. If the wage and salary expenditures are for FY 2002, enter the employment multiplier for your institution from column 4. If the wage and salary expenditures are for FY 2003, enter the employment multiplier for your institution from column 5. If the wage and salary expenditures are for FY 2004, enter the employment multiplier for your institution from column 6.

Line 13: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 5 by 1,000,000. Enter the result on Line 13.

Line 14: To estimate the employment impact, multiply the value entered on line 13 by the employment multiplier entered on line 12. Enter the result on line 14.

**Instructions for Part 2—Estimating the Regional Economic Impact of HBCUs’ Spending for Other Items (e.g., not Wages and Salaries)**

Line 15: Total expenses for your institution can be obtained from either the IPEDS Finance data on the IPEDS web site or institutional records. Enter this amount on line 15.

Lines 16 and 17: To avoid double counting economic activity, expenditures by auxiliary enterprises and net grant aid to students will be subtracted from total expenses. Expenditures by auxiliary enterprises can be obtained from either the IPEDS Finance data on the IPEDS web site or institutional records. Enter this amount on line 16. Expenditures for net grant aid to students can be obtained from either the IPEDS Finance data on the IPEDS web site or institutional records. Enter this amount on line 17.

Line 18: Subtract the dollar amount on line 16 from the dollar amount on line 15. Enter the result on line 18.

Line 19: Subtract the dollar amount on line 17 from the dollar amount on line 18. Enter the result on line 19.

Line 20: Subtract the dollar amount on line 5 from the dollar amount on line 19. Enter the result on line 20.

Lines 21 and 22: Output multipliers specific to each institution’s expenditures for other items are reported in column 1 of table D-2. Enter the output multiplier for your institution on line 21. To estimate the output impact, multiply the dollar amount entered on line 20 by the multiplier entered on line 21. Enter the result on line 22.

Lines 23 and 24: Value-added multipliers specific to each institution’s expenditures for wages and salaries are reported in column 2 of table D-2. Enter the value-added multiplier for your institution on line 23. To estimate the value-added impact, multiply the dollar amount entered on line 20 by the multiplier entered on line 23. Enter the result on line 24.

Lines 25 and 26: Labor income multipliers specific to each institution’s expenditures for wages and salaries are reported in column 3 of table D-2. Enter the labor income multiplier for your institution on line 25. To estimate the labor income impact, multiply the dollar amount entered on line 20 by the labor income multiplier entered on line 25. Enter the result on line 26.

Line 27: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution’s expenditures for wages and salaries are reported in columns 4,5, and 6 of table D-2. If the wage and salary expenditures are for FY 2002, enter the employment multiplier for your institution from column 4. If the wage and salary expenditures are for FY 2003, enter the employment multiplier for your institution from column 5. If the wage and salary expenditures are for FY 2004, enter the employment multiplier for your institution from column 6.

Line 28: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 20 by 1,000,000. Enter this value on line 28.

Line 29: To estimate the employment impact, multiply the dollar amount entered on line 28 by the employment multiplier entered on line 27. Enter the result on line 29.



**Instructions for Part 3—Estimating the Regional Economic Impact of Spending by Undergraduate Students**

Lines 30 and 31: Full-time undergraduate enrollment and part-time undergraduate enrollment can be obtained from the Fall Enrollment data on the IPEDS web site or from institutional records. Enter full-time undergraduate enrollment on line 30 and part-time undergraduate enrollment on line 31.

Line 32: Multiply the number of students on line 31 by 0.5 and enter the result on line 32.

Line 33: Add the number of students on line 30 to the number of students on line 32. Enter this result on line 33.

Line 34: Over time, the annual spending while attending school by the average undergraduate student increases due to the effects of inflation. Enter the dollar amount corresponding to the appropriate year on line 34.

Line 35: To estimate initial spending by undergraduates, multiply the number of undergraduate students on line 33 by the dollar amount entered on line 34. Enter the result on line 35.

Lines 36 and 37: Output multipliers specific to each institution's spending by undergraduates are reported in column 1 of table D-2. Enter the output multiplier for your institution on line 36. To estimate the output impact, multiply the dollar amount entered on line 35 by the multiplier entered on line 36. Enter the result on line 37.

Lines 38 and 39: Value-added multipliers specific to each institution's expenditures for wages and salaries are reported in column 2 of table D-2. Enter the value-added multiplier for your institution on line 38. To estimate the value-added impact, multiply the dollar amount entered on line 35 by the multiplier entered on line 38. Enter the result on line 39.

Lines 40 and 41: Labor income multipliers specific to each institution's expenditures for wages and salaries are reported in column 3 of table D-2. Enter the labor income multiplier for your institution on line 40. To estimate the labor income impact, multiply the dollar amount entered on line 35 by the labor income multiplier entered on line 40. Enter the result on line 41.

Line 42: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution's spending by undergraduates are reported in columns 4, 5, and 6 of table D-2. If enrollment is for 2002, enter the employment multiplier for your institution from column 4. If enrollment is for FY 2003, enter the employment multiplier for your institution from column 5. If enrollment is for 2004, enter the employment multiplier for your institution from column 6.

Line 43: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 35 by 1,000,000. Enter this value on line 43.

Line 44: To estimate the employment impact, multiply the value entered on line 43 by the employment multiplier entered on line 42. Enter the result on line 44.

**Instructions for Part 4—Estimating the Regional Economic Impact of Spending by Graduate and Professional Students**

Lines 45 and 46: Full-time graduate and part-time graduate enrollment can be obtained from the Fall Enrollment data on the IPEDS web site or from institutional records. Enter full-time graduate enrollment on line 45. Enter part-time graduate enrollment on line 46.

Lines 47 and 48: Full-time first professional and part-time first professional enrollment can be obtained from the Fall Enrollment data on the IPEDS web site or from institutional records. Enter full-time first professional enrollment on line 47. Enter part-time first professional enrollment on line 48.

Line 49: Multiply the number of students on line 46 by 0.5 and enter the result on line 49.

Line 50: Multiply the number of students on line 48 by 0.5 and enter the result on line 50.

Line 51: Add the number of students on lines 45, 47, 49, and 50. Enter the result on line 51.

Line 52: Over time, the annual spending while attending school by the average graduate or professional student increases due to the effects of inflation. Enter the dollar amount corresponding to the appropriate year on line 52.

Line 53: To estimate initial spending by graduate and first professional students, multiply the number of students on line 51 by the dollar amount entered on line 52. Enter the result on line 53.

Lines 54 and 55: Output multipliers specific to each institution's spending by graduate and first professional students are reported in column 1 of table D-2. Enter the output multiplier for your institution on line 54. To estimate the output impact, multiply the dollar amount entered on line 53 by the multiplier entered on line 54. Enter the result on line 55.

Lines 56 and 57: Value-added multipliers specific to each institution's expenditures for wages and salaries are reported in column 2 of table D-2. Enter the value-added multiplier for your institution on line 56. To estimate the value-added impact, multiply the dollar amount entered on line 53 by the multiplier entered on line 56. Enter the result on line 57.

Lines 58 and 59: Labor income multipliers specific to each institution's expenditures for wages and salaries are reported in column 3 of table D-2. Enter the labor income multiplier for your institution on line 58. To estimate the labor income impact, multiply the dollar amount entered on line 53 by the labor income multiplier entered on line 58. Enter the result on line 59.

Line 60: Due to the effects of inflation, the value of employment multipliers will decline each year. The inflation-adjusted employment multipliers specific to each institution's spending by graduate and professional students are reported in columns 4, 5, and 6 of table D-2. If enrollment is for 2002, enter the employment multiplier for your institution from column 4. If enrollment is for 2003, enter the employment multiplier for your institution from column 5. If enrollment is for 2004, enter the employment multiplier for your institution from column 6.

Line 61: Because employment multipliers estimate the number of jobs generated per million dollars in spending, divide the dollar amount entered on line 53 by 1,000,000. Enter this value on line 61.

Line 62: To estimate the employment impact, multiply the value entered on line 61 by the employment multiplier entered on line 60. Enter the result on line 62.

**Instructions for Part 5—Estimating the Total Regional Economic Impact of All Spending**

Lines 63, 64, 65, 66, and 67: On line 63, enter the dollar amount on line 5. On line 64, enter the dollar amount on line 20. On line 65, enter the dollar amount on line 35. On line 66, enter the dollar amount on line 53. Add the amounts on lines 63, 64, 65, and 66. Enter the result on line 67.

Lines 68, 69, 70, 71, and 72: On line 68, enter the dollar amount on line 7. On line 69, enter the dollar amount on line 22. On line 70, enter the dollar amount on line 37. On line 71, enter the dollar amount on line 55. Add the amounts on lines 68, 69, 70, and 71. Enter the result on line 72.

Lines 73, 74, 75, 76, and 77: On line 73, enter the dollar amount on line 9. On line 74, enter the dollar amount on line 24. On line 75, enter the dollar amount on line 39. On line 76, enter the dollar amount on line 57. Add the amounts on lines 73, 74, 75, and 76. Enter the result on line 77.

Lines 78, 79, 80, 81, and 82: On line 78, enter the dollar amount on line 11. On line 79, enter the dollar amount on line 26. On line 80, enter the dollar amount on line 41. On line 81, enter the dollar amount on line 59. Add the amounts on lines 78, 79, 80, and 81. Enter the result on line 82.

Lines 83, 84, 85, 86, and 87: On line 83, enter the number of jobs from line 14. On line 84, enter the number of jobs from line 29. On line 85, enter the number of jobs from line 44. On line 86, enter the number of jobs from line 62. Add the amounts on lines 83, 84, 85, and 86. Enter the result on line 87.

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## **Appendix D**

### **Template Multipliers**

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**Table D-1. Template multipliers for public Historically Black Colleges and Universities**

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>4-year</b>						
<b>Alabama A &amp;M University</b>						
Wages and salaries .....	2.177	1.438	1.237	54.8	53.7	52.1
Other institutional spending .....	1.181	0.352	0.247	7.5	7.3	7.1
Undergraduate students .....	1.071	0.643	0.351	17.2	16.8	16.3
Graduate/professional students.....	1.099	0.661	0.368	17.4	17.1	16.6
<b>Alabama State University</b>						
Wages and salaries .....	2.238	1.501	1.281	64.9	63.5	61.6
Other institutional spending .....	1.202	0.377	0.252	8.1	7.9	7.7
Undergraduate students .....	1.166	0.706	0.383	18.9	18.5	17.9
Graduate/professional students.....	1.192	0.723	0.399	19.1	18.7	18.1
<b>Albany State University</b>						
Wages and salaries .....	2.210	1.471	1.262	66.4	65.0	63.1
Other institutional spending .....	1.168	0.332	0.220	7.2	7.0	6.8
Undergraduate students .....	1.127	0.688	0.371	18.4	18.0	17.5
Graduate/professional students.....	1.153	0.704	0.387	18.6	18.2	17.7
<b>Alcorn State University</b>						
Wages and salaries .....	2.115	1.357	1.182	90.9	88.9	86.3
Other institutional spending .....	1.132	0.308	0.183	6.6	6.5	6.3
Undergraduate students .....	1.055	0.642	0.337	17.4	17.0	16.5
Graduate/professional students.....	1.076	0.656	0.351	17.6	17.2	16.7
<b>Bluefield State College</b>						
Wages and salaries .....	2.212	1.467	1.260	68.6	67.1	65.2
Other institutional spending .....	1.203	0.375	0.238	8.5	8.3	8.0
Undergraduate students .....	1.149	0.684	0.367	19.4	19.0	18.4
Graduate/professional students.....	†	†	†	†	†	†
<b>Bowie State University</b>						
Wages and salaries .....	2.314	1.606	1.357	52.4	51.3	49.8
Other institutional spending .....	1.320	0.578	0.393	8.1	7.9	7.7
Undergraduate students .....	1.230	0.787	0.442	15.1	14.7	14.3
Graduate/professional students.....	1.259	0.807	0.462	15.3	14.9	14.5
<b>Central State University</b>						
Wages and salaries .....	2.249	1.515	1.298	61.5	60.2	58.5
Other institutional spending .....	1.224	0.416	0.290	8.1	7.9	7.7
Undergraduate students .....	1.141	0.702	0.387	17.1	16.7	16.2
Graduate/professional students.....	1.171	0.721	0.405	18.5	18.1	17.5
<b>Cheyney University of PA</b>						
Wages and salaries .....	2.439	1.705	1.422	52.7	51.5	50.0
Other institutional spending .....	1.459	0.678	0.450	9.6	9.4	9.2
Undergraduate students .....	1.316	0.830	0.470	15.9	15.5	15.1
Graduate/professional students.....	1.350	0.852	0.489	16.0	15.7	15.2

(See notes at end of table.)

**Table D-1. Template multipliers for *public* Historically Black Colleges and Universities—Continued**

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Coppin State College</b>						
Wages and salaries .....	2.375	1.651	1.388	70.3	68.8	66.8
Other institutional spending .....	1.373	0.600	0.405	9.8	9.6	9.3
Undergraduate students .....	1.276	0.804	0.452	17.1	16.7	16.2
Graduate/professional students.....	1.307	0.825	0.471	17.4	17.0	16.5
<b>Delaware State University</b>						
Wages and salaries .....	2.148	1.401	1.219	46.2	45.2	43.9
Other institutional spending .....	1.133	0.281	0.200	6.6	6.5	6.3
Undergraduate students .....	1.071	0.654	0.349	16.5	16.1	15.7
Graduate/professional students.....	1.095	0.666	0.361	16.6	16.2	15.8
<b>Elizabeth City State University</b>						
Wages and salaries .....	2.155	1.398	1.212	53.4	52.3	50.7
Other institutional spending .....	1.141	0.329	0.205	6.8	6.6	6.4
Undergraduate students .....	1.065	0.652	0.349	17.6	17.2	16.7
Graduate/professional students.....	1.092	0.670	0.365	19.1	18.7	18.2
<b>Fayetteville State University</b>						
Wages and salaries .....	2.171	1.415	1.222	60.7	59.4	57.7
Other institutional spending .....	1.158	0.309	0.214	7.3	7.2	7.0
Undergraduate students .....	1.105	0.671	0.358	17.5	17.1	16.6
Graduate/professional students.....	1.129	0.686	0.373	17.9	17.5	17.0
<b>FL Agricultural and Mechanical Univ</b>						
Wages and salaries .....	2.222	1.507	1.284	45.4	44.4	43.1
Other institutional spending .....	1.227	0.427	0.297	8.4	8.2	7.9
Undergraduate students .....	1.141	0.715	0.388	14.9	14.5	14.1
Graduate/professional students.....	1.168	0.733	0.406	15.1	14.8	14.4
<b>Fort Valley State University</b>						
Wages and salaries .....	2.051	1.252	1.113	37.8	37.0	35.9
Other institutional spending .....	1.054	0.176	0.127	4.3	4.2	4.1
Undergraduate students .....	0.855	0.546	0.279	14.8	14.5	14.1
Graduate/professional students.....	0.886	0.560	0.292	15.1	14.7	14.3
<b>Grambling State University</b>						
Wages and salaries .....	2.133	1.350	1.187	64.6	63.2	61.3
Other institutional spending .....	1.139	0.238	0.163	6.1	6.0	5.8
Undergraduate students .....	1.045	0.620	0.329	19.3	18.9	18.4
Graduate/professional students.....	1.070	0.633	0.343	19.7	19.3	18.7
<b>Harris-Stowe State College</b>						
Wages and salaries .....	2.441	1.691	1.409	59.5	58.2	56.5
Other institutional spending .....	1.438	0.593	0.396	10.0	9.8	9.5
Undergraduate students .....	1.316	0.811	0.454	17.2	16.8	16.3
Graduate/professional students.....	†	†	†	†	†	†

(See notes at end of table.)



**Table D-1. Template multipliers for public Historically Black Colleges and Universities—Continued**

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Jackson State University</b>						
Wages and salaries .....	2.241	1.490	1.275	57.4	56.1	54.5
Other institutional spending .....	1.247	0.365	0.245	7.8	7.6	7.4
Undergraduate students .....	1.156	0.701	0.378	17.3	16.9	16.4
Graduate/professional students.....	1.182	0.718	0.394	17.5	17.1	16.6
<b>Kentucky State University</b>						
Wages and salaries .....	2.056	1.287	1.145	59.1	57.9	56.2
Other institutional spending .....	1.048	0.179	0.135	4.5	4.4	4.3
Undergraduate students .....	0.944	0.577	0.302	16.9	16.5	16.0
Graduate/professional students.....	0.966	0.591	0.317	17.2	16.8	16.3
<b>Langston University</b>						
Wages and salaries .....	2.351	1.603	1.346	93.5	91.5	88.8
Other institutional spending .....	1.389	0.558	0.355	11.6	11.4	11.0
Undergraduate students .....	1.262	0.763	0.417	19.4	18.9	18.4
Graduate/professional students.....	1.290	0.782	0.435	19.3	18.9	18.4
<b>Lincoln University (MO)</b>						
Wages and salaries .....	2.174	1.446	1.244	58.6	57.3	55.7
Other institutional spending .....	1.131	0.321	0.199	6.0	5.9	5.7
Undergraduate students .....	1.057	0.652	0.347	17.2	16.9	16.4
Graduate/professional students.....	1.083	0.668	0.362	17.5	17.2	16.7
<b>Lincoln University (PA)</b>						
Wages and salaries .....	2.439	1.705	1.422	67.3	65.9	63.9
Other institutional spending .....	1.459	0.678	0.450	9.6	9.4	9.1
Undergraduate students .....	1.316	0.830	0.470	15.8	15.5	15.0
Graduate/professional students.....	1.350	0.852	0.489	16.2	15.8	15.4
<b>Mississippi Valley State University</b>						
Wages and salaries .....	2.095	1.315	1.159	70.9	69.3	67.3
Other institutional spending .....	1.104	0.249	0.168	6.2	6.1	5.9
Undergraduate students .....	1.024	0.617	0.322	17.7	17.3	16.8
Graduate/professional students.....	1.023	0.621	0.329	17.6	17.2	16.7
<b>Morgan State University</b>						
Wages and salaries .....	2.375	1.651	1.388	61.2	59.9	58.1
Other institutional spending .....	1.373	0.600	0.405	9.8	9.6	9.3
Undergraduate students .....	1.276	0.804	0.452	17.1	16.7	16.2
Graduate/professional students.....	1.307	0.825	0.471	17.3	16.9	16.4
<b>NC Agricultural &amp; Technical St Univ</b>						
Wages and salaries .....	2.299	1.577	1.331	49.6	48.5	47.1
Other institutional spending .....	1.246	0.420	0.287	8.1	7.9	7.7
Undergraduate students .....	1.192	0.735	0.402	17.1	16.7	16.2
Graduate/professional students.....	1.220	0.754	0.420	17.3	17.0	16.5

(See notes at end of table.)

**Table D-1. Template multipliers for *public* Historically Black Colleges and Universities—Continued**

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Norfolk State University</b>						
Wages and salaries .....	2.329	1.578	1.332	70.0	68.5	66.5
Other institutional spending .....	1.316	0.493	0.325	9.9	9.7	9.4
Undergraduate students .....	1.243	0.752	0.414	18.7	18.3	17.8
Graduate/professional students.....	1.273	0.771	0.431	19.1	18.7	18.2
<b>North Carolina Central University</b>						
Wages and salaries .....	2.205	1.494	1.276	47.8	46.8	45.4
Other institutional spending .....	1.167	0.366	0.244	6.6	6.4	6.2
Undergraduate students .....	1.102	0.683	0.368	16.0	15.7	15.2
Graduate/professional students.....	1.128	0.700	0.385	16.2	15.9	15.4
<b>Prairie View A &amp; M University</b>						
Wages and salaries .....	2.350	1.615	1.349	57.0	55.7	54.1
Other institutional spending .....	1.503	0.709	0.450	9.7	9.5	9.2
Undergraduate students .....	1.279	0.812	0.450	15.6	15.3	14.9
Graduate/professional students.....	1.310	0.832	0.468	15.9	15.6	15.1
<b>Savannah State University</b>						
Wages and salaries .....	2.252	1.525	1.296	46.1	45.2	43.8
Other institutional spending .....	1.228	0.410	0.269	7.8	7.7	7.5
Undergraduate students .....	1.176	0.733	0.400	17.3	17.0	16.5
Graduate/professional students.....	1.203	0.753	0.418	17.7	17.3	16.8
<b>South Carolina State University</b>						
Wages and salaries .....	2.111	1.337	1.182	47.9	46.8	45.5
Other institutional spending .....	1.121	0.269	0.176	6.7	6.5	6.4
Undergraduate students .....	1.005	0.609	0.324	17.2	16.8	16.3
Graduate/professional students.....	1.030	0.625	0.339	17.4	17.1	16.6
<b>Southern Univ and A&amp;M College</b>						
Wages and salaries .....	2.226	1.491	1.274	66.2	64.8	62.9
Other institutional spending .....	1.255	0.452	0.287	8.6	8.4	8.1
Undergraduate students .....	1.145	0.698	0.377	16.9	16.5	16.0
Graduate/professional students.....	1.172	0.713	0.392	17.2	16.9	16.4
<b>Southern University New Orleans</b>						
Wages and salaries .....	2.301	1.566	1.321	66.9	65.5	63.6
Other institutional spending .....	1.351	0.513	0.317	9.1	8.9	8.6
Undergraduate students .....	1.218	0.753	0.410	16.9	16.5	16.0
Graduate/professional students.....	1.246	0.770	0.426	17.2	16.8	16.3
<b>Tennessee State University</b>						
Wages and salaries .....	2.368	1.638	1.379	57.3	56.1	54.4
Other institutional spending .....	1.346	0.508	0.356	9.2	9.0	8.7
Undergraduate students .....	1.269	0.792	0.443	16.5	16.1	15.7
Graduate/professional students.....	1.299	0.813	0.462	16.8	16.4	15.9

(See notes at end of table.)

Table D-1. Template multipliers for *public* Historically Black Colleges and Universities—Continued

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Texas Southern University</b>						
Wages and salaries .....	2.350	1.615	1.349	67.2	65.7	63.8
Other institutional spending .....	1.503	0.709	0.450	9.7	9.5	9.3
Undergraduate students .....	1.279	0.812	0.450	15.6	15.3	14.9
Graduate/professional students.....	1.310	0.832	0.468	15.9	15.5	15.1
<b>University of Arkansas at Pine Bluff</b>						
Wages and salaries .....	2.137	1.393	1.209	64.7	63.3	61.4
Other institutional spending .....	1.116	0.294	0.179	6.3	6.1	6.0
Undergraduate students .....	1.064	0.644	0.339	18.2	17.8	17.2
Graduate/professional students.....	1.087	0.659	0.353	18.5	18.1	17.6
<b>University of the District of Columbia</b>						
Wages and salaries .....	2.314	1.606	1.357	42.5	41.6	40.4
Other institutional spending .....	1.320	0.578	0.393	8.1	7.9	7.7
Undergraduate students .....	1.230	0.787	0.442	15.1	14.7	14.3
Graduate/professional students.....	1.259	0.807	0.462	15.2	14.9	14.4
<b>University of DC Clarke School of Law</b>						
Wages and salaries .....	2.314	1.606	1.357	40.9	40.0	38.8
Other institutional spending .....	1.320	0.578	0.393	7.8	7.6	7.4
Undergraduate students .....	NA	NA	NA	NA	NA	NA
Graduate/professional students.....	1.259	0.807	0.462	15.4	15.1	14.7
<b>University of Maryland-Eastern Shore</b>						
Wages and salaries .....	2.260	1.526	1.299	62.3	61.0	59.2
Other institutional spending .....	1.220	0.403	0.253	7.9	7.8	7.5
Undergraduate students .....	1.178	0.718	0.387	18.3	17.9	17.4
Graduate/professional students.....	1.204	0.733	0.402	18.4	18.0	17.5
<b>Virginia State University</b>						
Wages and salaries .....	2.292	1.572	1.324	70.0	68.5	66.5
Other institutional spending .....	1.280	0.499	0.333	8.7	8.5	8.2
Undergraduate students .....	1.202	0.749	0.411	16.8	16.5	16.0
Graduate/professional students.....	1.231	0.768	0.429	17.1	16.7	16.2
<b>West Virginia State College</b>						
Wages and salaries .....	2.181	1.446	1.252	70.0	68.5	66.5
Other institutional spending .....	1.193	0.363	0.232	7.3	7.2	7.0
Undergraduate students .....	1.096	0.664	0.354	18.5	18.1	17.6
Graduate/professional students.....	†	†	†	†	†	†
<b>Winston-Salem State University</b>						
Wages and salaries .....	2.226	1.516	1.294	55.8	54.6	53.0
Other institutional spending .....	1.176	0.352	0.239	6.9	6.8	6.6
Undergraduate students .....	1.131	0.702	0.380	17.3	16.9	16.4
Graduate/professional students.....	1.157	0.719	0.396	15.9	15.5	15.1

(See notes at end of table.)

**Table D-1. Template multipliers for *public* Historically Black Colleges and Universities—Continued**

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>2-year</b>						
<b>Bishop State Community College</b>						
Wages and salaries .....	2.264	1.523	1.290	68.0	66.6	64.6
Other institutional spending .....	1.299	0.460	0.286	8.7	8.5	8.2
Undergraduate students .....	1.190	0.722	0.388	18.4	18.1	17.5
Graduate/professional students.....	†	†	†	†	†	†
<b>Coahoma Community College</b>						
Wages and salaries .....	2.128	1.378	1.204	56.6	55.4	53.8
Other institutional spending .....	1.119	0.260	0.171	6.1	6.0	5.8
Undergraduate students .....	1.047	0.631	0.332	18.0	17.6	17.1
Graduate/professional students.....	†	†	†	†	†	†
<b>Denmark Technical College</b>						
Wages and salaries .....	2.047	1.255	1.123	54.6	53.4	51.9
Other institutional spending .....	1.063	0.224	0.137	5.6	5.5	5.4
Undergraduate students .....	0.919	0.555	0.285	19.8	19.4	18.8
Graduate/professional students.....	†	†	†	†	†	†
<b>Gadsden State Community College</b>						
Wages and salaries .....	2.187	1.438	1.242	65.5	64.0	62.2
Other institutional spending .....	1.163	0.334	0.220	7.2	7.0	6.8
Undergraduate students .....	1.112	0.675	0.362	18.7	18.3	17.8
Graduate/professional students.....	†	†	†	†	†	†
<b>J F Drake State Technical College</b>						
Wages and salaries .....	2.177	1.438	1.237	52.4	51.3	49.8
Other institutional spending .....	1.181	0.352	0.247	7.8	7.6	7.4
Undergraduate students .....	1.045	0.627	0.343	17.1	16.7	16.2
Graduate/professional students .....	†	†	†	†	†	†
<b>Lawson State Community College</b>						
Wages and salaries .....	2.268	1.546	1.307	66.8	65.3	63.4
Other institutional spending .....	1.243	0.452	0.292	8.2	8.0	7.8
Undergraduate students .....	1.183	0.738	0.402	17.1	16.7	16.2
Graduate/professional students.....	†	†	†	†	†	†
<b>Shelton St Comm College-C A Fredd</b>						
Wages and salaries .....	2.165	1.404	1.211	65.9	64.5	62.6
Other institutional spending .....	1.198	0.333	0.201	6.8	6.6	6.5
Undergraduate students .....	1.074	0.643	0.340	18.3	17.9	17.4
Graduate/professional students.....	†	†	†	†	†	†

(See notes at end of table.)

**Table D-1. Template multipliers for public Historically Black Colleges and Universities—Continued**

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Southern University at Shreveport</b>						
Wages and salaries .....	2.275	1.519	1.293	80.3	78.6	76.3
Other institutional spending .....	1.340	0.457	0.286	9.4	9.2	8.9
Undergraduate students .....	1.202	0.725	0.393	17.7	17.3	16.8
Graduate/professional students.....	†	†	†	†	†	†
<b>St Philips College</b>						
Wages and salaries .....	2.352	1.600	1.340	43.8	42.8	41.6
Other institutional spending .....	1.407	0.553	0.363	10.2	10.0	9.7
Undergraduate students .....	1.270	0.788	0.432	16.8	16.5	16.0
Graduate/professional students.....	†	†	†	†	†	†
<b>Trenholm St Technical College</b>						
Wages and salaries .....	2.238	1.501	1.281	56.3	55.1	53.5
Other institutional spending .....	1.202	0.377	0.252	8.2	8.0	7.8
Undergraduate students .....	1.166	0.706	0.383	18.8	18.4	17.9
Graduate/professional students.....	†	†	†	†	†	†

† Not applicable.

NOTE: Economic multipliers for output, value-added, and labor income are expressed in dollar amounts to the nearest third decimal whereas multipliers for employment are reported to the first decimal. This reflects fundamental differences in how multipliers are used and what they represent. The output, value-added, and labor income multipliers are applied against dollar amounts and generate impact estimates in terms of dollar amounts. The employment multipliers are applied against \$1,000,000 amounts and generate economic impact estimates that are measured in terms of jobs. Output refers to the value of total production, including domestic and foreign trade. Value-added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs. The multipliers for output, value-added, labor income, and employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and production functions provided by MIG, Inc.

SOURCE: Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

**Table D-2. Template multipliers for *not-for-profit* Historically Black Colleges and Universities**

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>4-year</b>						
<b>Allen University</b>						
Wages and salaries .....	2.231	1.503	1.278	157.6	154.2	149.7
Other institutional spending .....	1.192	0.389	0.247	7.9	7.7	7.5
Undergraduate students .....	1.138	0.700	0.377	16.5	16.1	15.7
Graduate/professional students.....	†	†	†	†	†	†
<b>Arkansas Baptist College</b>						
Wages and salaries .....	2.272	1.530	1.300	190.2	186.1	180.7
Other institutional spending .....	1.250	0.428	0.279	9.0	8.8	8.6
Undergraduate students .....	1.189	0.723	0.392	18.9	18.5	18.0
Graduate/professional students.....	†	†	†	†	†	†
<b>Barber-Scotia College</b>						
Wages and salaries .....	2.286	1.572	1.321	80.2	78.5	76.2
Other institutional spending .....	1.264	0.484	0.314	7.9	7.7	7.5
Undergraduate students .....	1.198	0.750	0.411	15.6	15.2	14.8
Graduate/professional students.....	†	†	†	†	†	†
<b>Benedict College</b>						
Wages and salaries .....	2.231	1.503	1.278	60.9	59.6	57.8
Other institutional spending .....	1.192	0.389	0.247	7.3	7.2	6.9
Undergraduate students .....	1.138	0.700	0.377	16.5	16.1	15.6
Graduate/professional students.....	†	†	†	†	†	†
<b>Bennett College</b>						
Wages and salaries .....	2.299	1.577	1.331	80.5	78.8	76.5
Other institutional spending .....	1.246	0.420	0.287	8.1	7.9	7.7
Undergraduate students .....	1.192	0.735	0.402	17.0	16.6	16.2
Graduate/professional students.....	†	†	†	†	†	†
<b>Bethune Cookman College</b>						
Wages and salaries .....	2.286	1.559	1.319	86.1	84.3	81.8
Other institutional spending .....	1.255	0.451	0.295	9.0	8.8	8.5
Undergraduate students .....	1.217	0.759	0.417	17.2	16.8	16.4
Graduate/professional students.....	†	†	†	†	†	†
<b>Clafin University</b>						
Wages and salaries .....	2.111	1.337	1.182	53.4	52.3	50.7
Other institutional spending .....	1.121	0.269	0.176	6.7	6.5	6.4
Undergraduate students .....	1.005	0.609	0.324	17.2	16.8	16.3
Graduate/professional students.....	†	†	†	†	†	†

(See notes at end of table.)

**Table D-2. Template multipliers for *not-for-profit* Historically Black Colleges and Universities**  
—Continued

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Clark Atlanta University</b>						
Wages and salaries .....	2.363	1.651	1.378	38.9	38.1	37.0
Other institutional spending .....	1.360	0.594	0.398	8.9	8.7	8.4
Undergraduate students .....	1.265	0.804	0.449	15.5	15.1	14.7
Graduate/professional students.....	1.295	0.825	0.469	15.7	15.4	14.9
<b>Concordia College</b>						
Wages and salaries .....	2.111	1.350	1.188	129.2	126.4	122.7
Other institutional spending .....	1.069	0.185	0.114	4.4	4.3	4.1
Undergraduate students .....	1.009	0.603	0.317	18.7	18.2	17.7
Graduate/professional students.....	†	†	†	†	†	†
<b>Dillard University</b>						
Wages and salaries .....	2.301	1.566	1.321	62.0	60.7	58.9
Other institutional spending .....	1.351	0.513	0.317	9.0	8.9	8.6
Undergraduate students .....	1.218	0.753	0.410	16.9	16.5	16.0
Graduate/professional students.....	†	†	†	†	†	†
<b>Edward Waters College</b>						
Wages and salaries .....	2.343	1.588	1.342	191.5	187.4	181.9
Other institutional spending .....	1.356	0.504	0.345	12.7	12.4	12.1
Undergraduate students .....	1.257	0.754	0.418	21.2	20.8	20.2
Graduate/professional students.....	†	†	†	†	†	†
<b>Fisk University</b>						
Wages and salaries .....	2.368	1.638	1.379	56.7	55.5	53.9
Other institutional spending .....	1.346	0.508	0.356	9.2	9.0	8.8
Undergraduate students .....	1.269	0.792	0.443	16.6	16.2	15.7
Graduate/professional students.....	1.299	0.813	0.462	18.3	17.9	17.4
<b>Florida Memorial College</b>						
Wages and salaries .....	2.364	1.644	1.379	72.4	70.9	68.8
Other institutional spending .....	1.352	0.565	0.388	9.4	9.2	8.9
Undergraduate students .....	1.267	0.800	0.448	15.7	15.3	14.9
Graduate/professional students.....	†	†	†	†	†	†
<b>Hampton University</b>						
Wages and salaries .....	2.329	1.578	1.332	67.4	65.9	64.0
Other institutional spending .....	1.316	0.493	0.325	9.9	9.7	9.4
Undergraduate students .....	1.243	0.752	0.414	18.7	18.3	17.8
Graduate/professional students.....	1.273	0.771	0.431	19.1	18.7	18.2
<b>Howard University</b>						
Wages and salaries .....	2.314	1.606	1.357	37.3	36.4	35.4
Other institutional spending .....	1.320	0.578	0.393	8.1	7.9	7.7
Undergraduate students .....	1.230	0.787	0.442	15.1	14.7	14.3
Graduate/professional students.....	1.259	0.807	0.462	15.2	14.9	14.5

(See notes at end of table.)

**Table D-2. Template multipliers for *not-for-profit* Historically Black Colleges and Universities**  
—Continued

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Huston-Tillotson College</b>						
Wages and salaries .....	2.243	1.517	1.291	87.8	85.9	83.4
Other institutional spending .....	1.295	0.510	0.356	8.3	8.1	7.8
Undergraduate students .....	1.177	0.744	0.408	14.7	14.4	14.0
Graduate/professional students.....	†	†	†	†	†	†
<b>Interdenominational Theolog Ctr</b>						
Wages and salaries .....	2.363	1.651	1.378	59.7	58.4	56.7
Other institutional spending .....	1.360	0.594	0.398	8.9	8.7	8.4
Undergraduate students .....	†	†	†	†	†	†
Graduate/professional students.....	1.295	0.825	0.469	15.6	15.3	14.8
<b>Jarvis Christian College</b>						
Wages and salaries .....	2.279	1.543	1.299	71.8	70.2	68.2
Other institutional spending .....	1.333	0.496	0.301	8.7	8.5	8.2
Undergraduate students .....	1.204	0.744	0.400	16.5	16.2	15.7
Graduate/professional students.....	†	†	†	†	†	†
<b>Johnson C Smith University</b>						
Wages and salaries .....	2.286	1.572	1.321	68.1	66.6	64.7
Other institutional spending .....	1.264	0.484	0.314	7.8	7.6	7.4
Undergraduate students .....	1.198	0.750	0.411	15.6	15.3	14.9
Graduate/professional students.....	†	†	†	†	†	†
<b>Lane College</b>						
Wages and salaries .....	2.171	1.446	1.244	128.2	125.5	121.8
Other institutional spending .....	1.133	0.284	0.194	5.9	5.8	5.6
Undergraduate students .....	1.043	0.650	0.348	16.6	16.2	15.7
Graduate/professional students.....	†	†	†	†	†	†
<b>Le Moyne-Owen College</b>						
Wages and salaries .....	2.341	1.611	1.356	55.4	54.2	52.6
Other institutional spending .....	1.335	0.492	0.335	9.0	8.8	8.6
Undergraduate students .....	1.234	0.770	0.426	16.0	15.6	15.2
Graduate/professional students.....	†	†	†	†	†	†
<b>Livingstone College</b>						
Wages and salaries .....	2.116	1.348	1.189	75.5	73.9	71.7
Other institutional spending .....	1.122	0.295	0.199	6.2	6.0	5.9
Undergraduate students .....	1.046	0.640	0.344	16.1	15.8	15.3
Graduate/professional students.....	1.069	0.651	0.356	16.3	16.0	15.5
<b>Meharry Medical College</b>						
Wages and salaries .....	2.368	1.638	1.379	51.6	50.5	49.0
Other institutional spending .....	1.346	0.508	0.356	9.2	9.0	8.7
Undergraduate students .....	1.269	0.792	0.443	16.5	16.1	15.7
Graduate/professional students.....	1.299	0.813	0.462	16.7	16.3	15.9

(See notes at end of table.)



**Table D-2. Template multipliers for *not-for-profit* Historically Black Colleges and Universities**  
—Continued

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Miles College</b>						
Wages and salaries .....	2.268	1.546	1.307	99.9	97.8	94.9
Other institutional spending .....	1.243	0.452	0.292	8.1	7.9	7.7
Undergraduate students .....	1.183	0.738	0.402	17.1	16.7	16.2
Graduate/professional students.....	†	†	†	†	†	†
<b>Morehouse College</b>						
Wages and salaries .....	2.363	1.651	1.378	52.7	51.5	50.0
Other institutional spending .....	1.360	0.594	0.398	8.9	8.7	8.5
Undergraduate students .....	1.265	0.804	0.449	15.5	15.2	14.7
Graduate/professional students.....	†	†	†	†	†	†
<b>Morehouse School of Medicine</b>						
Wages and salaries .....	2.363	1.651	1.378	45.8	44.8	43.5
Other institutional spending .....	1.360	0.594	0.398	8.9	8.7	8.4
Undergraduate students .....	†	†	†	†	†	†
Graduate/professional students.....	1.295	0.825	0.469	15.5	15.2	14.7
<b>Morris Brown College</b>						
Wages and salaries .....	2.363	1.651	1.378	60.6	59.3	57.6
Other institutional spending .....	1.360	0.594	0.398	8.9	8.7	8.4
Undergraduate students .....	1.265	0.804	0.449	15.5	15.2	14.7
Graduate/professional students.....	†	†	†	†	†	†
<b>Morris College</b>						
Wages and salaries .....	2.142	1.383	1.216	75.6	73.9	71.8
Other institutional spending .....	1.107	0.248	0.164	5.7	5.5	5.4
Undergraduate students .....	1.041	0.634	0.340	17.3	16.9	16.4
Graduate/professional students.....	†	†	†	†	†	†
<b>Oakwood College</b>						
Wages and salaries .....	2.177	1.438	1.237	64.9	63.5	61.7
Other institutional spending .....	1.181	0.352	0.247	7.6	7.4	7.2
Undergraduate students .....	1.071	0.643	0.351	17.1	16.8	16.3
Graduate/professional students.....	†	†	†	†	†	†
<b>Paine College</b>						
Wages and salaries .....	2.250	1.510	1.281	85.8	84.0	81.5
Other institutional spending .....	1.250	0.455	0.292	8.9	8.7	8.5
Undergraduate students .....	1.177	0.725	0.392	17.9	17.5	17.0
Graduate/professional students.....	†	†	†	†	†	†
<b>Paul Quinn College</b>						
Wages and salaries .....	2.363	1.641	1.367	71.3	69.7	67.7
Other institutional spending .....	1.425	0.671	0.438	9.4	9.2	8.9
Undergraduate students .....	1.284	0.817	0.455	14.9	14.6	14.1
Graduate/professional students.....	†	†	†	†	†	†

(See notes at end of table.)

**Table D-2. Template multipliers for *not-for-profit* Historically Black Colleges and Universities**  
—Continued

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Philander Smith College</b>						
Wages and salaries .....	2.272	1.530	1.300	74.5	72.9	70.8
Other institutional spending .....	1.250	0.428	0.279	8.9	8.7	8.4
Undergraduate students .....	1.189	0.723	0.392	18.9	18.5	17.9
Graduate/professional students.....	†	†	†	†	†	†
<b>Rust College</b>						
Wages and salaries .....	2.341	1.611	1.356	88.8	86.9	84.3
Other institutional spending .....	1.335	0.492	0.335	9.2	9.0	8.7
Undergraduate students .....	1.234	0.770	0.426	15.9	15.6	15.1
Graduate/professional students.....	†	†	†	†	†	†
<b>Saint Augustine's College</b>						
Wages and salaries .....	2.232	1.515	1.282	56.7	55.5	53.9
Other institutional spending .....	1.218	0.443	0.285	7.3	7.1	6.9
Undergraduate students .....	1.149	0.722	0.391	16.4	16.0	15.6
Graduate/professional students.....	†	†	†	†	†	†
<b>Saint Paul's College</b>						
Wages and salaries .....	2.030	1.204	1.093	112.4	110.0	106.8
Other institutional spending .....	1.048	0.161	0.125	4.5	4.4	4.3
Undergraduate students .....	0.888	0.533	0.287	18.1	17.7	17.2
Graduate/professional students.....	†	†	†	†	†	†
<b>Shaw University</b>						
Wages and salaries .....	2.232	1.515	1.282	89.1	87.2	84.7
Other institutional spending .....	1.218	0.443	0.285	7.3	7.1	6.9
Undergraduate students .....	1.149	0.722	0.391	16.3	16.0	15.5
Graduate/professional students.....	1.176	0.741	0.409	16.3	15.9	15.5
<b>Southwestern Christian College</b>						
Wages and salaries .....	2.363	1.641	1.367	104.5	102.2	99.3
Other institutional spending .....	1.425	0.671	0.438	9.5	9.3	9.1
Undergraduate students .....	1.284	0.817	0.455	15.0	14.7	14.2
Graduate/professional students.....	†	†	†	†	†	†
<b>Spelman College</b>						
Wages and salaries .....	2.363	1.651	1.378	64.3	62.9	61.0
Other institutional spending .....	1.360	0.594	0.398	8.9	8.7	8.4
Undergraduate students .....	1.265	0.804	0.449	15.5	15.2	14.7
Graduate/professional students.....	†	†	†	†	†	†
<b>Stillman College</b>						
Wages and salaries .....	2.165	1.404	1.211	76.3	74.7	72.5
Other institutional spending .....	1.198	0.333	0.201	6.5	6.4	6.2
Undergraduate students .....	1.100	0.659	0.348	18.4	18.0	17.5
Graduate/professional students.....	†	†	†	†	†	†

(See notes at end of table.)

**Table D-2. Template multipliers for *not-for-profit* Historically Black Colleges and Universities**  
—Continued

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Talladega College</b>						
Wages and salaries .....	2.107	1.339	1.177	42.5	41.6	40.4
Other institutional spending .....	1.103	0.247	0.160	5.5	5.4	5.2
Undergraduate students .....	1.037	0.616	0.321	17.8	17.4	16.9
Graduate/professional students.....	†	†	†	†	†	†
<b>Texas College</b>						
Wages and salaries .....	2.255	1.530	1.294	74.4	72.8	70.6
Other institutional spending .....	1.301	0.455	0.287	8.0	7.9	7.6
Undergraduate students .....	1.180	0.730	0.394	16.1	15.8	15.3
Graduate/professional students.....	†	†	†	†	†	†
<b>Tougaloo College</b>						
Wages and salaries .....	2.241	1.490	1.275	82.0	80.2	77.9
Other institutional spending .....	1.247	0.365	0.245	7.8	7.6	7.4
Undergraduate students .....	1.156	0.701	0.378	17.3	16.9	16.4
Graduate/professional students.....	†	†	†	†	†	†
<b>Tuskegee University</b>						
Wages and salaries .....	2.024	1.192	1.080	44.1	43.1	41.9
Other institutional spending .....	1.040	0.141	0.101	3.9	3.8	3.7
Undergraduate students .....	0.849	0.506	0.252	18.5	18.1	17.6
Graduate/professional students.....	0.876	0.520	0.266	18.6	18.2	17.7
<b>Virginia Union University</b>						
Wages and salaries .....	2.292	1.572	1.324	71.5	70.0	67.9
Other institutional spending .....	1.280	0.499	0.333	8.6	8.4	8.2
Undergraduate students .....	1.202	0.749	0.411	16.9	16.5	16.0
Graduate/professional students.....	1.231	0.768	0.429	17.0	16.6	16.2
<b>Voorhees College</b>						
Wages and salaries .....	2.047	1.255	1.123	112.8	110.4	107.2
Other institutional spending .....	1.063	0.224	0.137	5.7	5.6	5.4
Undergraduate students .....	0.919	0.555	0.285	19.8	19.4	18.8
Graduate/professional students.....	†	†	†	†	†	†
<b>Wilberforce University</b>						
Wages and salaries .....	2.249	1.515	1.298	77.3	75.6	73.4
Other institutional spending .....	1.224	0.416	0.290	8.1	7.9	7.7
Undergraduate students .....	1.141	0.702	0.387	17.1	16.8	16.3
Graduate/professional students.....	†	†	†	†	†	†
<b>Wiley College</b>						
Wages and salaries .....	2.145	1.399	1.204	97.3	95.2	92.4
Other institutional spending .....	1.188	0.401	0.240	6.2	6.1	5.9
Undergraduate students .....	1.074	0.663	0.347	15.6	15.2	14.8
Graduate/professional students.....	†	†	†	†	†	†

(See notes at end of table.)

**Table D-2. Template multipliers for *not-for-profit* Historically Black Colleges and Universities**  
—Continued

Institution	Template multipliers output (Column 1)	Template multipliers value-added (Column 2)	Template multipliers labor income (Column 3)	Employment multiplier 2002 (Column 4)	Employment multiplier 2003 (Column 5)	Employment multiplier 2004 (Column 6)
<b>Xavier University of Louisiana</b>						
Wages and salaries .....	2.301	1.566	1.321	49.5	48.4	47.0
Other institutional spending .....	1.351	0.513	0.317	9.1	8.9	8.6
Undergraduate students .....	1.218	0.753	0.410	16.9	16.5	16.0
Graduate/professional students.....	1.246	0.770	0.426	17.2	16.8	16.3
<b>2-year</b>						
<b>Clinton Junior College</b>						
Wages and salaries .....	2.286	1.572	1.321	71.7	70.1	68.1
Other institutional spending .....	1.264	0.484	0.314	8.0	7.8	7.6
Undergraduate students .....	1.192	0.750	0.411	14.9	14.5	14.1
Graduate/professional students.....	†	†	†	†	†	†
<b>Lewis College of Business</b>						
Wages and salaries .....	2.302	1.576	1.335	73.5	72.0	69.9
Other institutional spending .....	1.314	0.540	0.366	8.6	8.4	8.1
Undergraduate students .....	1.225	0.774	0.431	15.5	15.2	14.8
Graduate/professional students.....	†	†	†	†	†	†
<b>Mary Holmes College</b>						
Wages and salaries .....	2.146	1.386	1.206	133.1	130.2	126.4
Other institutional spending .....	1.144	0.291	0.197	6.9	6.8	6.6
Undergraduate students .....	1.077	0.645	0.344	18.7	18.3	17.8
Graduate/professional students.....	†	†	†	†	†	†

† Not applicable.

NOTE: Economic multipliers for output, value-added, and labor income are expressed in dollar amounts to the nearest third decimal whereas multipliers for employment are reported to the first decimal. This reflects fundamental differences in how multipliers are used and what they represent. The output, value-added, and labor income multipliers are applied against dollar amounts and generate impact estimates in terms of dollar amounts. The employment multipliers are applied against \$1,000,000 amounts and generate economic impact estimates that are measured in terms of jobs. Output refers to the value of total production, including domestic and foreign trade. Value-added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs. The multipliers for output, value-added, labor income, and employment were estimated using the IMPLAN system, version 2.0, Type SAM (Social Accounting Matrices) multipliers, and production functions provided by MIG, Inc.

SOURCE: Prepared by Jeffrey Humphreys for the National Center for Education Statistics, 2004.

**Appendix E**  
**Regional Economies Affected by HBCUs**

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## Public HBCUs

### 4-year

ALABAMA A & M UNIVERSITY – Huntsville, AL MSA  
ALABAMA STATE UNIVERSITY – Montgomery, AL MSA  
ALBANY STATE UNIVERSITY – Albany, GA MSA  
ALCORN STATE UNIVERSITY – Jefferson, Claiborne, and Adams counties, MS  
BLUEFIELD STATE COLLEGE – Bluefield, WV-VA Micropolitan Statistical Area  
BOWIE STATE UNIVERSITY – Washington-Arlington-Alexandria, DC-VA-MD-WV (part) MSA  
CENTRAL STATE UNIVERSITY – Dayton, OH MSA  
CHEYNEY UNIVERSITY OF PENNSYLVANIA – Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA  
COPPIN STATE COLLEGE – Baltimore-Towson, MD MSA  
DELAWARE STATE UNIVERSITY – Dover, DE MSA  
ELIZABETH CITY STATE UNIVERSITY – Elizabeth City, NC Micropolitan Statistical Area  
FAYETTEVILLE STATE UNIVERSITY – Fayetteville, NC MSA  
FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY – Tallahassee, FL MSA  
FORT VALLEY STATE UNIVERSITY – Fort Valley, GA Micropolitan Statistical Area  
GRAMBLING STATE UNIVERSITY – Ruston, LA Micropolitan Statistical Area  
HARRIS-STOWE STATE COLLEGE – St. Louis MO-IL MSA  
JACKSON STATE UNIVERSITY – Jackson, MS MSA  
KENTUCKY STATE UNIVERSITY – Frankfort, KY Micropolitan Statistical Area  
LANGSTON UNIVERSITY – Oklahoma City, OK MSA  
LINCOLN UNIVERSITY (MO) – Jefferson City, MO MSA  
LINCOLN UNIVERSITY (PA) – Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA  
MISSISSIPPI VALLEY STATE UNIVERSITY – Greenwood, MS Micropolitan Statistical Area  
MORGAN STATE UNIVERSITY – Baltimore-Towson, MD MSA  
NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY – Greensboro-High Point, NC MSA  
NORFOLK STATE UNIVERSITY – Virginia Beach-Norfolk-Newport News, VA-NC MSA  
NORTH CAROLINA CENTRAL UNIVERSITY – Durham, NC MSA  
PRAIRIE VIEW A&M UNIVERSITY – Houston-Baytown-Sugar Land, TX MSA  
SAVANNAH STATE UNIVERSITY – Savannah, GA MSA  
SOUTH CAROLINA STATE UNIVERSITY – Orangeburg, SC Micropolitan Statistical Area  
SOUTHERN UNIVERSITY AND A&M COLLEGE – Baton Rouge, LA MSA  
SOUTHERN UNIVERSITY AT NEW ORLEANS – New Orleans-Metairie-Kenner, LA MSA  
TENNESSEE STATE UNIVERSITY – Nashville-Davidson-Murfreesboro, TN MSA  
TEXAS SOUTHERN UNIVERSITY – Houston-Baytown-Sugar Land, TX MSA  
UNIVERSITY OF ARKANSAS AT PINE BLUFF – Pine Bluff, AR MSA  
UNIVERSITY OF THE DISTRICT OF COLUMBIA – Washington-Arlington-Alexandria, DC-VA-MD-WV (part) MSA  
UNIVERSITY OF THE DISTRICT OF COLUMBIA, CLARK SCHOOL OF LAW – Washington-Arlington-Alexandria, DC-VA-MD-WV (part) MSA  
UNIVERSITY OF MARYLAND-EASTERN SHORE – Salisbury, MD MSA  
VIRGINIA STATE UNIVERSITY – Richmond, VA MSA  
WEST VIRGINIA STATE COLLEGE – Charleston, WV Micropolitan Statistical Area  
WINSTON-SALEM STATE UNIVERSITY – Winston-Salem, NC MSA

**2-year**

BISHOP STATE COMMUNITY COLLEGE – Mobile and Washington counties, AL  
COAHOMA COMMUNITY COLLEGE – Clarksdale, MS Micropolitan Statistical Area  
DENMARK TECHNICAL COLLEGE – Bamberg County, SC  
GADSDEN STATE COMMUNITY COLLEGE – St. Clair, Etowah, and Cherokee counties, AL  
J F DRAKE STATE TECHNICAL COLLEGE – Huntsville, AL MSA  
LAWSON STATE COMMUNITY COLLEGE – Birmingham-Hoover, AL MSA  
SHELTON STATE COMMUNITY COLLEGE-C A FREDD – Tuscaloosa, AL MSA  
SOUTHERN UNIVERSITY AT SHREVEPORT – Shreveport-Bossier City, LA MSA  
ST PHILIPS COLLEGE – San Antonio, TX MSA  
TRENHOLM STATE TECHNICAL COLLEGE – Montgomery, AL MSA

**Not-for-Profit HBCUs**

**4-year**

ALLEN UNIVERSITY – Columbia, SC MSA  
ARKANSAS BAPTIST COLLEGE – Little Rock-North Little Rock, AR MSA  
BARBER-SCOTIA COLLEGE – Charlotte-Gastonia-Concord, NC-SC MSA  
BENEDICT COLLEGE – Columbia, SC MSA  
BENNETT COLLEGE – Greensboro-High Point, NC MSA  
BETHUNE COOKMAN COLLEGE – Deltona-Daytona-Ormond Beach FL, MSA  
CLAFLIN UNIVERSITY – Orangeburg, SC Micropolitan Statistical Area  
CLARK ATLANTA UNIVERSITY – Atlanta-Sandy Springs-Marietta, GA MSA  
CONCORDIA COLLEGE – Selma, AL Micropolitan Statistical Area  
DILLARD UNIVERSITY – New Orleans-Metairie-Kenner, LA MSA  
EDWARD WATERS COLLEGE – Jacksonville, FL MSA  
FISK UNIVERSITY – Nashville, Davidson-Murfreesboro, TN MSA  
FLORIDA MEMORIAL COLLEGE – Miami-Fort Lauderdale-Miami Beach, FL MSA  
HAMPTON UNIVERSITY – Virginia Beach-Norfolk-Newport News, VA-NC MSA  
HOWARD UNIVERSITY – Washington-Arlington-Alexandria, DC-VA-MD-WV (part) MSA  
HUSTON-TILLOTSON COLLEGE – Austin-Round Rock, TX MSA  
INTERDENOMINATIONAL THEOLOGICAL CENTER – Atlanta-Sandy Springs-Marietta, GA MSA  
JARVIS CHRISTIAN COLLEGE – Wood, Smith, and Upshur counties, TX  
JOHNSON C SMITH UNIVERSITY – Charlotte-Gastonia-Concord, NC-SC MSA  
LANE COLLEGE – Jackson, TN MSA  
LE MOYNE-OWEN COLLEGE – Memphis, TN-MS-AR MSA  
LIVINGSTONE COLLEGE – Salisbury, NC Micropolitan Statistical Area  
MEHARRY MEDICAL COLLEGE – Nashville-Davidson-Murfreesboro, TN MSA  
MILES COLLEGE – Birmingham-Hoover, AL MSA  
MOREHOUSE COLLEGE – Atlanta-Sandy Springs-Marietta, GA MSA  
MOREHOUSE SCHOOL OF MEDICINE – Atlanta-Sandy Springs-Marietta, GA MSA  
MORRIS BROWN COLLEGE – Atlanta-Sandy Springs-Marietta, GA MSA  
MORRIS COLLEGE – Sumter, SC MSA  
OAKWOOD COLLEGE – Huntsville, AL MSA  
PAINE COLLEGE – Augusta-Richmond County, GA-SC MSA  
PAUL QUINN COLLEGE – Dallas-Fort Worth-Arlington, TX MSA  
PHILANDER SMITH COLLEGE – Little Rock-North Little Rock, AR MSA  
RUST COLLEGE – Memphis, TN-MS-AR MSA  
SAINT AUGUSTINE’S COLLEGE – Raleigh-Cary, NC MSA  
SAINT PAUL’S COLLEGE – Brunswick County, VA  
SHAW UNIVERSITY – Raleigh-Cary, NC MSA



SOUTHWESTERN CHRISTIAN COLLEGE – Dallas-Fort Worth-Arlington, TX MSA  
SPELMAN COLLEGE – Atlanta-Sandy Springs-Marietta, GA MSA  
STILLMAN COLLEGE – Tuscaloosa, AL MSA  
TALLADEGA COLLEGE – Talladega-Sylacauga, AL MSA  
TEXAS COLLEGE – Tyler, TX MSA  
TOUGALOO COLLEGE – Jackson, MS MSA  
TUSKEGEE UNIVERSITY – Tuskegee, AL Micropolitan Statistical Area  
VIRGINIA UNION UNIVERSITY – Richmond, VA MSA  
VOORHEES COLLEGE – Bamberg County, SC  
WILBERFORCE UNIVERSITY – Dayton, OH MSA  
WILEY COLLEGE – Marshall, TX Micropolitan Statistical Area  
XAVIER UNIVERSITY OF LOUISIANA – New Orleans-Metairie-Kenner, LA MSA

**2-year**

CLINTON JUNIOR COLLEGE – Charlotte-Gastonia-Concord, NC-SC MSA  
LEWIS COLLEGE OF BUSINESS – Detroit-Warren-Livonia, MI MSA  
MARY HOLMES COLLEGE – Clay, Lowndes, and Oktibbeha counties, MS

Notes: Metropolitan Statistical Area (MSA) and Micropolitan Statistical Area designations and definitions are based on census 2000 population and commuting data (Executive Office of the President, Office of Management and Budget, June 6, 2003).

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