

Expenditures on S&E Research Facilities At Historically Black Colleges and Universities Continue To Decline

by Abiola C. Davis

In contrast to the situation at HBCUs, funding of construction and repair/renovation of research facilities at all universities and colleges was 8 percent higher in FY 1992-93 than in FY 1986-87.

The majority of the 105 Historically Black Colleges and Universities (HBCUs) were built in the late 1800s making higher education available to blacks. Since that time, the HBCUs have played a pivotal role in awarding degrees to black students. Twenty-seven percent of the science and engineering (S&E) baccalaureate degrees earned by blacks in 1990 were awarded at HBCUs. Only 13 HBCUs awarded degrees in engineering, yet they produced one-fourth of the baccalaureate degrees awarded to blacks in engineering. In 1991, 25 HBCUs offered graduate S&E programs and 14 percent of all black graduate students were enrolled in these programs. In linguistics and botany the HBCUs accounted for more than half of all black graduate students enrolled (68 percent and 55 percent). Over the past century and a half, despite the important role the HBCUs have in training minority scientists and engineers, only a limited amount of funds have been invested in construction or repair/renovation of research facilities at these institutions. More than most buildings on campus, research facilities need to be frequently updated to be competitive and to meet changing State and Federal regulations.

Funding for Construction Projects Down By Almost 90 Percent

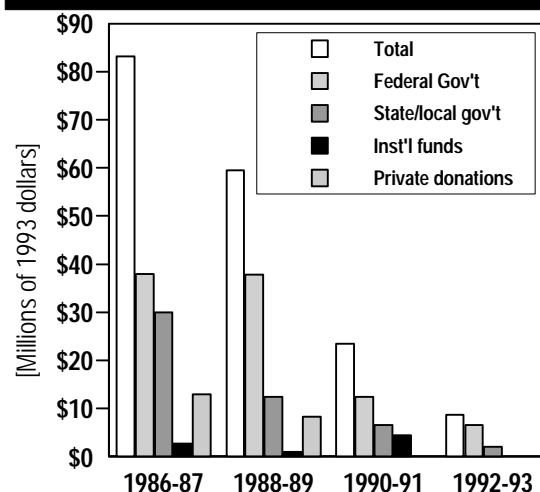
The most current NSF survey of S&E research facilities at universities and colleges¹ shows an 89.7-percent decrease in funding for research facilities constructed at the 29 HBCUs sampled since FY 1986-87

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¹ See NSF/SRS, *Scientific and Engineering Research Facilities at Universities and Colleges: 1994*, NSF 94-315 (vol. I, Analysis) and NSF 94-316 (vol. II, Detailed Statistical Tables), (Arlington, VA, 1994).

Chart 1. Source of funds for science & engineering research facility construction projects at HBCUs: 1986-93



SOURCE: NSF/SRS, 1994 Survey of Scientific & Engineering Research Facilities at Universities and Colleges

(chart 1).² The HBCUs are almost completely dependent on public funds to construct infrastructure. The Federal Government continues to provide most of those funds, with State/local government being the second-largest contributor. In fiscal years 1986-87, 1988-89, and 1990-91 HBCUs received a limited amount of money from institutional funds and private donations. However, in FY 1992-93, the Federal and State/local governments were the only providers of such funding for HBCUs, giving \$6.6 million and \$2 million respectively, down by 82.6 percent and 93.3 percent from FY 1986-87 (chart 1).

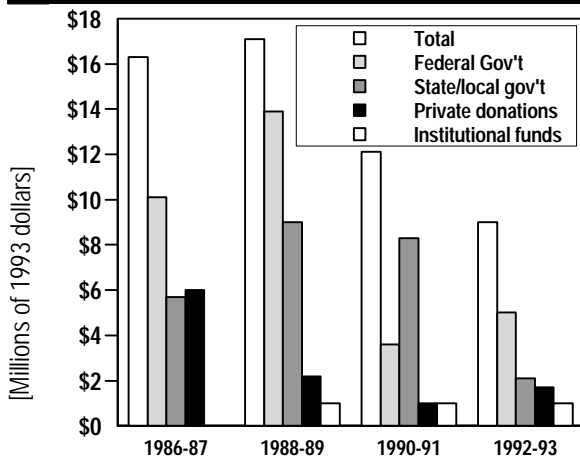
The repair/renovation expenditures for S&E research facilities decreased by almost 50 percent (47.4 percent) between FY 1988-89

² The 29 institutions sampled in the Facilities Survey produce 90 percent of all separately budgeted research in HBCUs. NSF/SRS *Academic Science and Engineering: R&D Expenditures, Fiscal Year 1992*, Detailed Statistical Tables, NSF 94-324 (Arlington, VA, 1994).

and FY 1992-93 (chart 2). As with construction, the Federal Government and State/local governments have been the largest provider of funds for repair/renovation of HBCUs, contributing \$32.6 million and \$17 million between FY 1986-87 and 1992-93.

In 1988-89 slightly over one-third (36 percent) of HBCUs S&E research facilities were rated as "suitable for the most scientifically sophisticated research." In 1993-94 the number dropped slightly, to 31 percent (table 1). Seven percent of the facilities were rated as "requiring major repair/renovation." In 1994 the number of these facilities rose slightly, to 9 percent (table 1).

Chart 2. Source of funds for S&E research facility repair/renovation projects at HBCUs: 1986-93



SOURCE: NSF/SRS, 1994 Survey of Scientific & Engineering Research Facilities at Universities and Colleges

Over \$100 Million in Deferred Capital Projects at HBCUs

The 29 HBCUs included in the survey had planned expenditures for \$24.4 million in

Table 1. Assessment of quality/condition of S&E research facilities at HBCUs: 1988-94

[Percentage of research space]

Condition of S&E research facilities	1988	1990	1992	1994 1/
Total.....	100	100	100	100
Suitable for most highly developed and scientifically sophisticated research.....	36	31	34	31
Effective for most purposes.....	39	45	41	39
Requiring limited repair/renovation 2/.....	18	18	17	21
Requiring major repair/renovation 2/.....	7	7	8	9

1/ Data for this item and 1988, 1990, and 1992 are based on the 29 HBCUs included in the survey consistently since 1988.

2/ Includes both "requires major repair or renovation" and "requires replacement."

SOURCE: NSF/SRS, 1994 Survey of Scientific & Engineering Research at Universities and Colleges

construction, and \$13.9 million in repair/renovation for FY 1995-96. Aside from these planned expenditures, 10 of these institutions reported having approved institutional plans for S&E research facility construction projects beyond FY 1994-95 which had to be deferred for lack of funding. The survey collected data on need only from schools with approved institutional plans for FY 1994-95 which included deferred space. The restrictive nature of the survey question on deferred needs limited the number of institutions that could respond. So, the costs of these unfunded and deferred capital projects represent a conservative estimate of the total

need for S&E research capital projects. The funds needed for these projects will total \$93.8 million.

Only 5 of 29 HBCUs reported approved plans for repair/renovation projects for S&E research facilities. Currently unfunded, these projects will total \$9.2 million.

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