SC Commission on Higher Education

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Special Report

AN ASSESSMENT OF SOUTH CAROLINA HIGHER EDUCATION FACILITIES CONDITIONS & MEASURING DEFERRED MAINTENANCE

WHY FACILITIES ARE IMPORTANT

As provided in Section 59-103-15 of the South Carolina Code of Laws, as amended, the mission of higher education is "to be a global leader in providing a coordinated, comprehensive system of excellence in education by providing instruction, research, and life-long learning opportunities which are focused on economic development and benefit the State of South Carolina." To accomplish this mission, our public institutions must have campuses that are modern, adequate, and safe. Institutions must have the necessary space to conduct instruction, research, student support, administrative, and service activities. Campus facilities are among the state's most valuable assets and, as such, represent a significant taxpayer investment.

Routine maintenance of campus facilities has been directly affected by state appropriations that have not kept up with inflation and growth over the past several years. Consequently, a backlog of deferred maintenance and capital renewal has developed as institutions have implemented a "band-aid" approach to addressing their most critical needs. Nationwide, there is an estimated $36 billion backlog of higher education deferred maintenance. More alarming is the fact that this does not include maintenance associated with utilities infrastructure, landscaping, and roads.[1]

In order to remain competitive, South Carolina public colleges and universities must invest in their facilities. A 2006 study reinforced the notion that "facilities students see – or do not see – on a campus can mean the difference between whether they enroll or not."[2] According to the study conducted by David Cain and Gary L. Reynolds entitled, *The Impact of Facilities on Recruitment and Retention of Students*, 73.6 percent of respondents named facilities related to their majors as "extremely important" or "very important" in choosing a college. In addition to student recruitment and retention, modern facilities can also provide opportunities for advancement in academic programs, research, and public service.

ASSESSING CURRENT CONDITIONS

For the current study, institutions evaluated education and general (E&G) buildings on their campuses using an assessment format established in the original deferred maintenance study conducted in 1994. The joint study, *Deferred Maintenance, An Analysis of South Carolina's Facilities Portfolio*, conducted by the Commission on Higher Education (CHE) and the Budget & Control Board (B&CB) provided a way to measure the condition of the state's higher education physical resources and to quantify the funding needed to maintain quality and correct deficiencies. (See Appendix 1 for a sample evaluation form.) A professional research analyst was employed to direct the study in which data were gathered by surveying institutions using criteria established by the Association of Higher Education Facilities Officers (formerly the Association of Physical Plant Administrators, APPA). State and institutional administrators considered the methodology developed to be fair and objective. CHE approved a proposal to conduct a study of deferred maintenance and requested $300,000 in appropriated funds in FY 1999-2000 to support this important initiative. However, funds to conduct the study were not appropriated.

Recognizing the importance of building assessments and in the absence of a statewide study, institutions have been tasked to evaluate E&G buildings on their campuses on a three-year cycle. CHE updated the original study in 2003 using the same framework for analysis. That report indicated a backlog of approximately $603 million.

Evaluations completed in spring 2007 are the basis for this report. Only facilities with 25 or more space classified as E&G were surveyed. Of those, only owned facilities are reflected in this report. The data are also submitted to the CHE Management Information System (CHEMIS) and used in evaluating requests for Capital Improvement Bonds and responding to legislative requests.

CALCULATING MAINTENANCE NEEDS

Data from CHEMIS have historically been used to calculate maintenance for E&G facilities using a factor based on construction type from the Markel Appraisal Chart Company and the building's replacement value as defined by the B&CB Office of Insurance Reserve Fund. CHE and institutional facilities officers determined that the use of an APPA average of three percent of a building's replacement value was more appropriate.

The effect of the previous calculation metric was that maintenance costs included in the Physical Plant step (Step 8) of the Mission Resource Requirements (MRR), the methodology used by CHE to determine the funding needs of public colleges and universities, did not measure funding needs at the current recommended level of three percent of building replacement cost. Accordingly, the 2008-09 MRR will be updated to reflect this change.

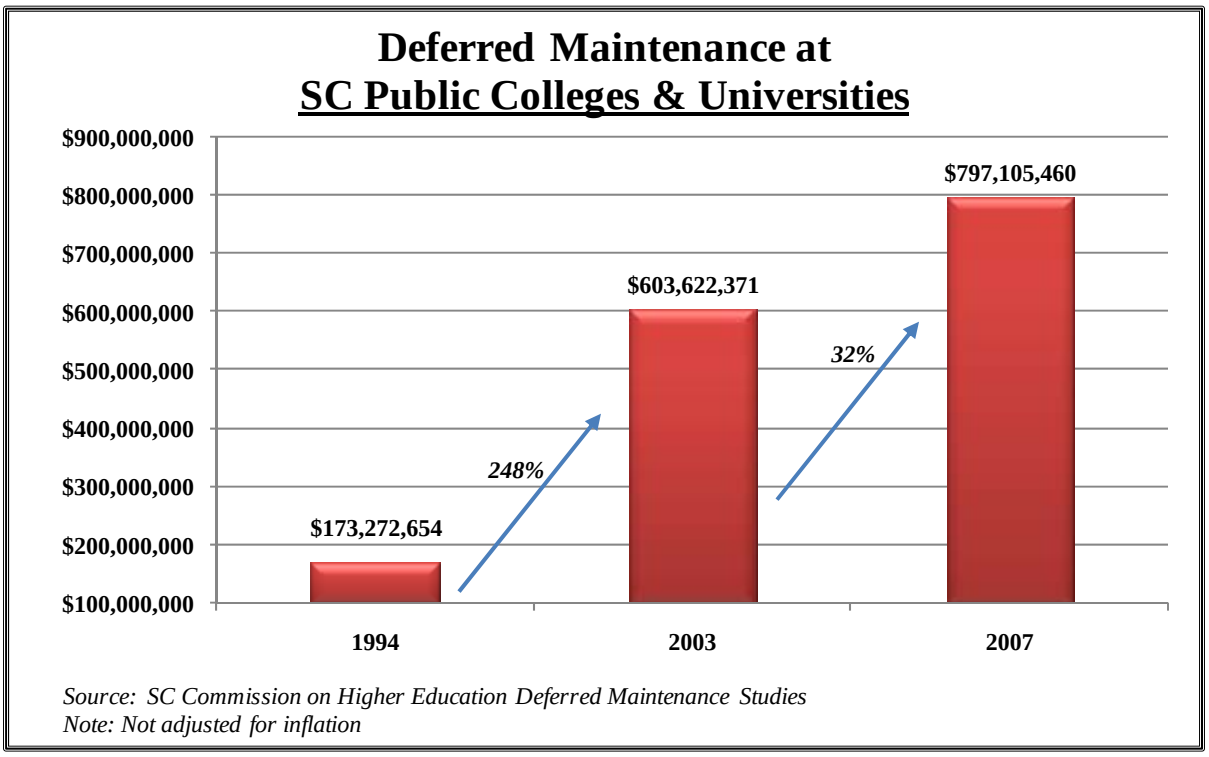
Of important note, technical colleges (with the exception of Denmark Technical College and Technical College of the Lowcountry) are not funded through the Physical Plant step as the counties these colleges serve rather than the state are expected to provide necessary maintenance funding. Many of the technical colleges have noted, however, that the county funds do not meet all of their needs throughout the fiscal year.

The 2007 survey identified a $135,930,828 annual need to maintain all public colleges and universities facilities at an acceptable level (i.e. defined as a building condition of 90 or higher).

DEFERRED MAINTENANCE & INSTITUTIONAL PLANS

In a simple search of "deferred maintenance," one would find many definitions. For the purpose of this report, Harvey Kaiser's characterization is used: maintenance and repair deficiencies that are unfunded or unplanned and are deferred to a future budget cycle or postponed until funds are available.[3] The current study identified $797,105,460 in deferred maintenance at the state's public colleges and universities. This is a 32% increase from the 2003 report and a 360% increase from the original 1994 study (Figure 1). (Note: These data are not adjusted for inflation.)

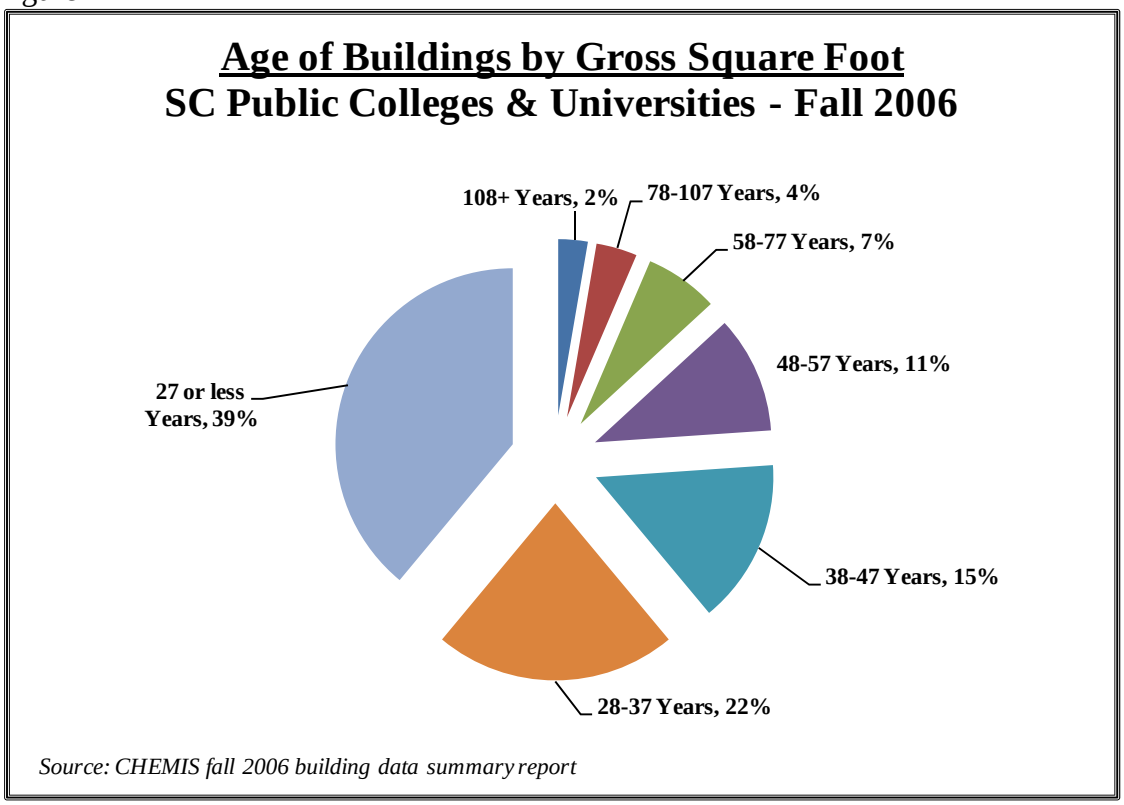
Figure 1



The problem of deferred maintenance is magnified by the age of campus facilities and infrastructure. Approximately 61 percent of South Carolina's higher education facilities are 40 years old or less (Figure 2). This is similar to national data as more than half of the buildings across the country were constructed in the 1960s and 1970s during a period when enrollment nearly doubled.[6]

Although most buildings constructed in South Carolina have an expected life of over 50 years, the systems within those buildings must be replaced more frequently in order to maintain use of the facility as originally designed. (Systems' life cycles have been estimated to be 33 years on average.) Two percent or roughly one million of the gross square feet of the state's higher education facilities is 108 years or older. Institutions are challenged by the restoration costs associated with maintaining and repairing these historic facilities, many of which are on the National Historic Register. Institutions are also challenged in today's rapidly-changing technological world as these changes require more frequent upgrades.

Figure 2



In May 2007, CHE adopted a policy which requires institutions to submit annual plans which identify the amount of funding needed to bring maintenance to an acceptable level (i.e. defined as a building condition of 90 or higher). These annual plans allow CHE to review ongoing maintenance needs in addition to the amount of maintenance that has been deferred. The plans also provide interested stakeholders with an understanding of the varying needs on each campus. (See Appendix 2 for the complete policy.)

These annual plans provide a snapshot of the needs of the institutions' and proposed approaches to address those needs. A more detailed approach is found in each institution's annual Comprehensive Permanent Improvement Plan (CPIP). The CPIP is a five-year planning document that includes requests for project approval where funding is reasonably available in the next fiscal year, requests for Capital Improvement Bond funds, and requests for long-term construction and renovation needs. For more information on the CPIP, go to: www.che.sc.gov/Finance/FacilitiesInformation/CPIP.htm.

Many of the state's colleges and universities are challenged by the lack of space to relocate classrooms, offices, and labs in order to perform necessary capital renewal. This concern is articulated by one institutional representative who stated: "a very real roadblock to effective capital renewal is the inability to vacate a building during an extensive renewal project. Most institutions are in this situation whereby all available space is fully utilized. Without [swing] space, major maintenance, upgrades, and renewals must be carefully chosen and tailored to avoid disrupting the primary missions of a university. The results are more numerous projects, more expensive projects, postponement of projects, and re-prioritizing projects based on access rather than need."

IN OTHER STATES

Across the country, higher education institutions are dealing with the issue of deferred maintenance. Four studies of note include:

- The **Kansas** Board of Regents released a report in fall 2006 identifying $727 million in building, infrastructure, and utilities renewal needs. Through a "full court press," the 2007 legislative session brought a small victory as the Kansas Legislature approved a five-year maintenance funding plan, dedicating $90 million to address the backlog.
- The State University System in **Florida** released a similar report in November 2006 entitled, Building Florida's Future: Quality and Access or Business as Usual? This report was the result of a task force focused on construction, maintenance, and deferred maintenance which made recommendations to the system chancellor "related to increasing efficiency, identifying and expanding revenue streams for investment, and improving processes in each category."[4] The report assessed capacity needs of the state's higher education institutions and estimated there was a need for $3.4 billion for new space.
- In April 2007, the **Kentucky** Council on Postsecondary Education received a final report on the condition of its educational facilities. The independent study assessed the current condition of campus buildings, measured their adequacy, and identified the need for additional space capacity to meet current and future needs. The study found the institutions needed: $5.3 billion for system renewal, $860 million for adequacy or fit-for-use improvements, and an additional $6.4 billion in new building needs.[5]
- The **North Carolina** General Assembly called for a study in 1997 to look into the capital equity and adequacy of the University of North Carolina System's facilities. The report identified $6.9 billion in renovation and modernization, current capacity, future capacity, and other needs. The result was a $3.1 billion bond bill passed by North Carolina voters in 2000.

THE BOTTOM LINE FOR SOUTH CAROLINA

The report just concluded identified current deferred maintenance needs at South Carolina public institutions of approximately $797 million. It is important to note this estimate does not include infrastructure (i.e. water, electrical, communication, and sewer lines, lighting, roadways). CHE and the institutional facilities officers will work over the next year to identify parameters for reporting infrastructure needs. In addition to the needs associated with deferred maintenance, the report also identified annual routine maintenance needs of approximately $136 million or three percent of the current building replacement value.

RECOMMENDATIONS

As shown in the examples above, states that have recognized the need to address deferred maintenance have done so with aggressive plans that have directed significant resources toward the problem. These needs have accumulated over several years. Likewise, the solution will take time. Accordingly, the Commission recommends a 20-year plan to reduce the backlog of deferred maintenance with approximately $40 million a year dedicated to addressing these needs. (See Appendix 3 for institution-specific data.) The Commission also recognizes that institutions must also have the resources to address routine maintenance and repair so that the backlog does not continue to grow. Accordingly, the Commission will continue to advocate for full funding of the MRR which would provide the operating funds needed to address routine maintenance needs.

Given sufficient resources, the Commission and institutions stand willing and able to work with the appropriate state entities in finding viable solutions to reducing the existing deferred maintenance backlog, preserving facility quality, and serving the people of South Carolina.

For more information, go to: http://www.che.sc.gov/DeferredMaintenance/DMHome.htm.

REFERENCES

[1]Rose, Rodney. "Buildings: The Gifts That Keep on Giving." Facilities Manager. March/April 2007: 18-23.

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[5]Wiseman, Bob. "Kentucky Receives Final Higher Education Facilities Audit Report. Society for College and University Planning Southern Regional May 2007 report. (www.scup.org/pubs/SEN/2007/May/scupso_20070504.html)

[6]Porter, Jane. "Halls of Ivy – And Crumbling Plaster." Business Week. 23 July 2007.