



*Evidence Summary*

***The Quality of Academic Library Building Improvements Has a Positive Impact on Library Usage***

**A review of:**

Shill, Harold B. and Shawn Tonner. "Does the Building Still Matter? Usage Patterns in New, Expanded, and Renovated Libraries, 1995-2002." *College & Research Libraries* 65.2 (Mar. 2004): 123-150.

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**Abstract**

**Objective** – To measure the impact of academic library facility improvements on physical library usage.

**Design** – The facility improvement data used for this study were previously collected through a 68-item Web survey for the companion article "Creating a Better Place: Physical Improvements in Academic Libraries, 1995-2002" (Shill and Tonner). The measurement of library usage was by exit gate counts before and after library improvements.

**Setting** – American academic libraries in which: facility improvement projects were completed between 1995 and 2002, the project space was not smaller than 20,000

square feet, the project space did not include off-site storage or non-public space, and gate-count statistics from before and after facility changes were available.

**Subjects** – Ninety of 384 identified academic libraries were able to provide usable data on: exit gate count, total circulation, in-house collection use, and reference transaction data.

**Methods** – The data collection was undertaken in 2003 for the companion study (Shill and Tonner). A population of 384 libraries potentially able to meet criteria for the study was gathered and each library was invited by e-mail to complete a Web-based survey. Through this initial contact, 357 libraries were confirmed as meeting the study criteria, and responses were received

from 182 of those providing a 51% overall response rate.

Respondents were asked about institutional characteristics (public or private, Carnegie classification, etc.); project specific features (year of completion, nature of project, etc.); nature and extent of changes (seating, wiring, HVAC, etc.); presence of non-library services in the facility; collection arrangements; before and after quality changes in lighting, seating and a range of services (as assessed by the survey respondent); and before and after project completion gate count usage statistics. Respondents were asked a set of eleven questions each with a five-point scale about facility quality and librarian satisfaction with the former and the changed facility.

A further criteria requirement of the availability of pre- and post-project gate count was implemented, reducing the number of libraries to be studied to 90. Facility usage changes were calculated by subtracting the gate count total for the last complete year pre-project from the most recent year gate count post project.

**Main results** - Eighty percent of the 90 libraries reported increased gate count post-project, and 20 percent reported a decline in usage. The median increase across the libraries was 37.4 percent with 25.6 percent of libraries experiencing a post-project increase of 100 percent or more. Renovated facilities were more likely to see usage decline, but there was no statistically significant difference in usage change between renovated and new facilities. Libraries more recently upgraded saw greater usage growth than those renovations completed earlier in the study period, although 75 percent of the facilities continued to experience higher post-project usage levels. Nearly all of the private institutions (93.1%) experienced usage

increases and almost half experienced growth of 100 percent or more.

No statistically significant relationship was found between changes in post project usage and:

- The proportion of facility space allocated for library functions
- The physical location of the library on campus
- The size of the library facility
- The level of degrees offered at the institution
- The availability of wireless access
- The number of computers in the instruction lab
- The number of public access workstations
- A larger number of seats
- The number of group study rooms
- The shelving capacity, the use of compact shelving or off-site storage
- The presence of coffee or snack bars
- The presence of any non-library facilities

There was a statistically significant correlation (Pearson's r) between increased post project usage and:

- The institution type (public or private) (p=.000)
- The number of data ports in the facility (p=.005)
- The percent of wired seats (p=.034)

Ten elements relating to improved quality emerged as statistically significant in relation to increased usage, although the correlation for quality of artificial lighting was not statistically significant (p=.162 n.s.). The statistically significant correlations (Pearson's r) between quality and increased usage in order of strength of correlation were: the quality of the instruction lab (p=.000); layout (p=.001); public access workstations (p=.006); natural lighting (p=.007); user workspace (p=.008); telecommunications infrastructure (p=.014);

overall ambience ( $p=.020$ ); collection storage ( $p=.026$ ); heating, ventilating, and air-conditioning system ( $p=.026$ ); and service point locations ( $p=.038$ ).

**Conclusion** – This study confirmed that 80 percent of libraries experience usage increase after a library improvement project. The study revealed those investments that cause increased use, and also found that a number of variables previously predicted to cause usage growth were not significant. The study also found that quality of the improvements, additions, and the building are a significant driver of increased use. The median 37.4 percent increase demonstrates that, contrary to reports in the literature (Shill and Tonner 460), overall library usage is increasing in these institutions.

### **Commentary**

The future of ‘the library as place’ has been the subject of discussion in the academic library literature for more than 20 years (Shill and Tonner 431), and the debate over the future of the academic library as a physical entity continues as millions of dollars are spent each year on new design and renovation. In order to undertake effective planning of facilities, libraries need evidence that will inform best decisions. There has been a lack of validated empirical evidence in the literature about the impact of building design on the use of library facilities. The information gathered by this study and its companion are a significant contribution to our understanding of the academic library as a facility. This study does not address the debate, but does provide some empirical findings that could be used for further discussion. It should be noted that this study does not attempt to measure cost-benefit of investment in the redesign of library facilities.

The study was undertaken in a thorough and credible approach, yet the use of gate counts as the dependent variable gave concern for a variety of reasons. The report of gate count is not a mandatory measure for most consortia and associations. It is a measure fraught with problems in consistency of collection and comparability among institutions, including such concerns as measuring use in pass-through facilities, new systems in place following renovations, differences in data collection, and sampling techniques among others. Shill and Tonner also failed to account for the increase in student population at many of the institutions studied during the period of measurement, which could also account for increased traffic. Gate count may reveal how many individuals have passed the entrance, but it does not reveal how individuals are using the library or whether student usage of services and resources has changed. The authors of the study recognize the need for further research on a number of questions such as the specific uses that students make of academic libraries today and student attitudes toward the library. This study thus lacks the concerns and views of the community about the libraries’ designs and facility planning efforts. A community-centered library quality study approach would have greatly enhanced this study.

The contribution of Shill and Tonner through this study and its companion study is significant to our understanding of the academic library as place. The comprehensiveness of their approach and their analysis of results are apparent throughout the 64 pages of the combined articles.

**Work Cited**

Shill, Harold B. and Shawn Tonner.  
"Creating a Better Place: Physical  
Improvements in Academic Libraries,  
1995-2002." College & Research  
Libraries 64.6 (Nov. 2003): 431-66.