Applying Benchmarking in Higher Education: A Review of Three Case Studies

SUSAN WEST ENGELKEMEYER, BABSON COLLEGE

Benchmarking has proved to be an effective method to identify best practice information and improve processes in an organization. Although the technique has been used widely in business and industry, the concept has not been broadly embraced and applied in higher education. This article discusses and analyzes the application of benchmarking in three higher education case studies: one in a private U.S. college; another in an Australian university; and the third in a higher education consortium. The approaches used in these three case studies are compared to the most common types of benchmarking, and key learnings from looking across the three studies are presented. In addition, the impediments to the application of benchmarking in higher education are discussed and recommendations are made regarding how higher education can better benefit from the application of benchmarking.

Key words: process improvement

INTRODUCTION

Benchmarking must come to mean learning from others.

—Robert C. Camp (1995, 250)

This quote from one of benchmarking’s leading practitioners perhaps best characterizes its evolution over the past decade or two of practice. Early efforts can be characterized as “problem-based benchmarking” (Camp 1995). Generally, projects were initiated in response to factors that included negative customer feedback, the need to improve cycle times, and a desire to reduce defect rates. That is, benchmarking was initially used to find innovative solutions to problems.

Now, in the 1990s, benchmarking has transitioned to concentrate on and improve key business processes that have the greatest leverage or impact on an organization’s strategic goals. Benchmarking now is seen as an effective way to ensure continuous improvement of or progress toward strategic goals and organizational priorities.

Benchmarking has been defined as an “ongoing, systematic process for measuring and comparing the work processes of one organization [with] those of another for the purpose of identifying best practices that can lead to improvements in operations and customer service” (Shafer and Coate 1992, 31). But according to Camp (1995), benchmarking’s real benefit “comes from understanding the practices that permit the performance and the reasoned transfer [of best practices] to the organization” (pp. 15–16). At its optimum, then, benchmarking stresses not just process outputs and quality, but also the importance of identifying and...
understanding the drivers of processes—that is, what causes work to occur. Said another way, benchmarking is about learning.

Camp (1989) identifies four kinds of benchmarking.

1. **Internal benchmarking** — Work processes are compared between departments, divisions, or other internal company segments. Advantages of such benchmarking include the ease of data collection and the definition of areas for future external investigations. The primary disadvantage of internal benchmarking is a lower probability that it will yield significant process improvement breakthroughs.

2. **Competitive benchmarking** — An organization’s performance is measured against its peers or competitors. In competitive benchmarking, a consultant or other third party, rather than the organization itself, often collects and analyzes the data because of its proprietary nature.

3. **Functional/industry benchmarking** — An organization’s performance is compared against similar processes in the same function but at companies outside its own industry. This type of benchmarking is an opportunity for breakthrough improvements by analyzing high-performing processes across a variety of industries and organizations.

4. **Generic process/“best-in-class” benchmarking** — One organization’s processes are compared against exemplars of truly innovative practices and world-class performance levels, regardless of industry. This type of benchmarking makes the broadest use of data collection. One difficulty is in understanding how processes translate across industries; however, generic benchmarking often can result in an organization’s drastically altering its ideas of its performance capability and in the reengineering of business processes.

Each type of benchmarking has advantages and disadvantages, and some are simpler to conduct than others. And each benchmarking approach can be important for process analysis and improvement. Only functional and generic process benchmarking, however, are known to yield breakthrough improvements (Camp 1995).

In his fundamental first book, *Benchmarking*, Camp (1989) defined a detailed, 10-step process for “benchmarking users;” in his follow-up *Business Process Benchmarking* (1995), around that 10-step process he added specific supportive tasks for managers. At their simplest, however, all benchmarking processes can be boiled down to four basic steps.

1. Planning the study—identifying what processes will be compared, with what metrics, with which benchmark partner(s)
2. Collecting the data—from primary or secondary sources
3. Analyzing the data—documentation of best practices and identification of performance gaps
4. Taking action—specifying improvement programs and action items, and monitoring results (Alstete 1995)

Although benchmarking has been common in industry for about 20 years now, its application in higher education has been much more recent and limited. If benchmarking is at heart a learning process, why might this be the case, especially in academic (versus administrative) areas? Which colleges and universities have tried benchmarking? What can be learned from their efforts? This paper describes and analyzes three benchmarking case examples from higher education, as described in Camp’s most recent book, *Global Cases in Benchmarking: Best Practices From Organizations Around the World* (1998).

**BENCHMARKING IN HIGHER EDUCATION**

Since institutions of higher education profess learning, and value hard data, using benchmarking ... is a natural extension of what we provide to college students in the classroom.

—Jeffrey Alstete (1995, 38)

When colleges and universities have tried benchmarking, they find it offers multiple benefits, in that
benchmarking helps overcome resistance to change, provides a structure for external evaluation, and facilitates the sharing of information between schools (AACSB 1994). While benchmarking is still not common in the higher education sector, some business schools, professional associations such as the National Association of College and University Business Officers (NACUBO) and the Association for Continuing Higher Education (ACHE), independent consortia, and individual institutions have undertaken benchmarking projects. Those that do find that “benchmarking can be used for evaluating and improving institutional performance in the areas of cost, quality, and customer service” (Shafer and Coate 1992, 28).

One of the most systematic and extensive benchmarking studies in higher education was conducted by NACUBO. Although most colleges and universities have at some point compared their educational and general expenditures against those of other institutions, it was believed that they seldom looked at the relationship between the cost of a process and its output. NACUBO’s response was to design a survey to link costs to outputs and a project to create a set of benchmarks for operational and administrative costs against which institutions could compare their performance.

In late 1991, NACUBO launched a pilot benchmarking program, with the initial objective of developing consistent comparisons for some 40 core processes and a nationally accepted set of performance, quality, and cost data on those processes. The survey focused exclusively on business and administrative processes, in areas ranging from accounts payable to health services. The data were also specific by type of institution (public, private, liberal arts, two-year) for better use and analysis. Ultimately, the NACUBO project is expected to include a variety of quality measurements, but the pilot survey focused only on costs and service levels. Thus far, more than 275 institutions have participated in the project, now focused on just 26 core campus functions, such as accounting, admissions, development, and payroll.

In the 1993–1994 academic year, members of the American Assembly of Collegiate Schools of Business (AACSB), the main accrediting body for business schools, and the Graduate Management Admission Council (GMAC), launched a benchmarking study of processes in business schools. The data collected ranged from cost per viewbook to applications received per recruiting full-time equivalent (FTE) staff to percent of admits that matriculate (Alstete 1995). One of the participants in the study articulated its benefits: “Benchmarking forces us to do the things that good managers want to do but find excuses not to…It forces us to put mirrors around us, look at what we’re doing, and see if we’re doing it well” (AACSB 1994, 17). (Note: A viewbook is a publication that provides pictures and a brief overview of the institution and its programs. Viewbooks are mailed to all prospective students who inquire about the school.)

A definite benefit of the benchmarking studies in higher education is the introspection it requires— institutions are forced to study their own processes, collect information, and raise questions about the efficacy of current processes and systems in place.

Individual benchmarking projects have also been conducted in higher education. Alstete (1995) highlights projects at a number of institutions, including the University of Delaware, Oregon State University, and the State University of New York (SUNY) at Fredonia. In 1995, all budget executives at the Pennsylvania State University were asked to include a plan for benchmarking in all their strategic plans. Units were expected to initially collect internal data and discuss the implications for strategic goals and action plans. It is expected, however, that, over time, units will understand “the processes and practices that made a program or department best in class” (Alstete 1995, 54).

In higher education, benchmarking tends to be very process oriented, and its use by colleges and universities is usually not strategic (Alstete 1995). Even the extensive NACUBO study did not involve best-in-class data by looking outside the field of higher education. However, a definite benefit of the benchmarking studies in higher education is the introspection it requires— institutions are forced to study their own processes,
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Collect information, and raise questions about the efficacy of current processes and systems in place.

Process benchmarking in well-defined areas of an institution is a good way to practice the technique and gain insight into improvement possibilities. These gains, however, will have only a marginal impact on institutional effectiveness. A broader perspective, which goes beyond the functional process level and into strategic goals and key processes that deliver on those goals, can facilitate an institution’s progress toward mission attainment.

Many “benchmarking” projects in higher education use the term benchmarking when it is marginally appropriate—the term has been used whenever a comparison of some type has been made, and this rarely involves application of generic benchmarking to identify best-in-class performance levels. Where benchmarking has been carried out in higher education, the focus has been predominately on operational and administrative areas. Few instances exist of benchmarking and process improvement in academic areas. To their credit, two of the three higher education case studies profiled in Camp’s Global Cases in Benchmarking focus on academic areas. Perhaps these exemplars not only will encourage more widespread application of benchmarking techniques but also will demonstrate the applicability of benchmarking to education’s core business processes—teaching and learning.

THREE CASE STUDIES

While college degrees are highly esteemed, the value added by the educational process has become increasingly suspect.

—William Massy (1996, 3)

Camp’s Global Cases in Benchmarking (1998) offers 27 case studies from a range of sectors: seven in manufacturing, seven in service, four in the nonprofit sector, six in government, and three in higher education. Camp had set as his goal a balanced book, with equal representation from across the sectors and across geographic regions. But the tally above demonstrates the difficulty he encountered in finding sufficient examples.

Most of the case studies describe efforts at the classic approach of best practice benchmarking of a significant process. Adoption or adaptation of best practices offers an organization the potential of raising the performance of its processes to leadership levels. None of the three higher education case studies, however, applied the classic approach. Camp highlights the risk of not finding best practices from less-rigorous approaches. Such approaches may yield improvement in processes beyond an organization’s current performance levels, but are not likely to yield breakthroughs in performance improvement.

The higher education case studies, summarized in Figures 1–3, include the following:

1. A collaborative benchmarking study of student advising conducted by 13 members of the Academic Quality Consortium (AQC), a U.S. higher education consortium

2. A competitive benchmarking study of enrollment management by Babson College (Wellesley, Massachusetts)

3. A comparative analysis of postgraduate student research conducted by Queensland University of Technology (Queensland, Australia).

In the AQC case study, the scope of the project was limited to advising services delivered to students during their first year as an undergraduate. The intent of the collaborative benchmarking study was to find advising systems that are evaluated positively by students and to identify system characteristics as explanatory factors for these more highly rated systems. At the time of the study, the participating institutions were preparing to administer the survey.

The competitive benchmarking study conducted by Babson College identified 16 important college characteristics that influenced a candidate’s final choice of institution. Babson discovered that the college compared favorably on academic-related factors, but unfavorably on cost and social factors. The data indicate areas where Babson can emphasize characteristics for recruitment advantage, and where the college has opportunity areas for improvement in order to enhance its competitive standing. Babson used the data to
Figure 1 Collaborative benchmarking by a consortium (Bloomfield 1998).

Institutions: 13 members of the American Association for Higher Education’s Academic Quality Consortium (AQC)

Process benchmarked: Student advising

Type of benchmarking: Collaborative benchmarking ([interfirm comparison]*) is an extension of benchmarking in which a group of organizations jointly selects a process for study that is important to all members of the group. Once the process has been identified, each organization systematically studies its own performance, comparing results among the group members.

Case summary: This case study involves a collaborative benchmarking effort initiated by members of the Academic Quality Consortium (AQC) of the American Association for Higher Education (AAHE). It articulates the difficulties inherent in collaborative benchmarking and the additional obstacles commonly encountered in higher education benchmarking. The AQC was launched in 1992 by AAHE, and the institutions invited as members were those that had taken an early lead in the campus application of continuous improvement philosophy and techniques. The purpose of the AQC was to support its 21 member institutions in their commitment to quality management and continuous quality improvement, and to share their learning with the rest of the higher education community. The student advising project was undertaken to explore the use of benchmarking in academic processes. Of the AQC’s members, 13 agreed to participate.

This group identified 35 activities commonly recognized as part of student advising. Ultimately, the project focused on those advising services delivered during a student’s first year of study, and it was decided that the primary metric would be students’ evaluation of the extent to which the advising system met their needs. Six principal characteristics that students looked for in an advising system were identified, and the three most objective factors among those were agreed upon as performance measures.

1. Students received accurate and timely information about the institution, its academic requirements, and its curricular choices.
2. Students were informed in an accurate and timely manner about their own academic progress.
3. Students felt that advising personnel and information were easily and appropriately accessible.

A survey instrument was developed that asked students to evaluate their first year’s advising experience in these three activity areas. At the time of the case study, the participating institutions were preparing to administer the survey. The hope was that same advising systems would be evaluated as being superior to others, and that characteristics making those systems exemplary would emerge.

Because the “bottom-line” significance of process improvement is less apparent than in business and industry, the motivation for the higher education sector to benchmark is not as great. This, coupled with the decentralized nature of campus power structures, will influence the ultimate success of the AQC’s project.

* According to Camp (1995), interfirm comparisons are closely related to benchmarking.

Figure 2 Enrollment management at Babson College (Engelkemeyer, Nolan, and McNair 1998).

Institution: Babson College (Wellesley, Massachusetts)

Process benchmarked: Enrollment management

Type of benchmarking: Competitive benchmarking is a focus on an organization’s core business processes that can provide it a competitive advantage over its direct competitors. Competitive benchmarking compares the organization’s performance against two or three other organizations that compete for the same “customers” (students, in this case).

Case summary: Babson College places major emphasis on attracting and retaining high-caliber students for its undergraduate program. Since 1990, the college has mailed an Admitted Student Questionnaire (ASQ) to all students who apply and are accepted into that program. The survey group includes students who enroll at Babson, as well as those who choose to enroll elsewhere. The survey asks students to compare Babson against its competitors regarding important characteristics, images associated with the colleges, and costs/financial aid. The resulting data are compiled and analyzed by the College Entrance Examination Board (The College Board).

Just as in manufacturing, yield is important in the college admissions process. Each year many students inquire about a college or university, a smaller number choose to apply, an even smaller number are admitted, and even fewer of those actually enroll. For example, for the fall 1996 class, Babson College logged 13,275 inquiries, 2394 applications, 1089 admits, and 369 enrolled students. Because identifying, soliciting, and responding to potential candidates is quite costly (about $2200 per enrolled student), it is critical that the college fine-tune its enrollment strategy and carefully target available funds to those geographic areas and candidates who offer the highest potential of enrollment success. In 1996, ASQ data were combined with data from Enrollment Planning Services, which identifies geographic areas that have a high concentration of students with strong SAT scores and an interest in studying business. These two data sources are used to ensure that Babson identifies, attracts, and retains the best and brightest business-oriented undergraduate candidates.

The ASQ data provide information to Babson College on what attributes admitted students deem important. In the survey, students compare Babson against its top five competitor institutions on key characteristics. Of 16 college characteristics the students rated as important to their final choice of institution, the six most important were all academic-related. It was found that on factors rated very important, Babson compared favorably primarily in academic-related areas; its ratings were lower on cost and social factors.

The survey also generates competitive information on Babson’s five top competitor institutions, providing specific information on how Babson compares against them on the importance factors. Among the results are these: A much different set of factors is important to students who choose to attend competitor institutions; and different factors are very important to high-quality students. The data facilitated the development of a strategy to increase Babson’s chances of attracting high-quality students and winning students who cross-apply to competitor schools.

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identify and address performance shortfalls, and craft action plans that will close key performance gaps. A more focused recruiting campaign was initiated for the 1997–1998 academic year, and scholarships were awarded to the highest-qualified candidates. The change in policies worked. Overall, yield of accepted students increased by almost 25 percent, and the overall quality of the class increased on all measures.

In the Queensland case study, the goal was to increase the number of postgraduate research students. The comparative analysis study was conducted in order to understand the processes that attract and retain postgraduates and that contribute to the quality of faculty research. Three aspects of practice from the comparative institution were identified as examples that ensure successful conduct and completion of a research postgraduate degree, and they were incorporated into a report that was submitted for consideration and implementation.

Table 1 articulates key benchmarking characteristics across the types of benchmarking. This shows that although the types of benchmarking conducted in the three case studies—including collaborative or interfirm comparison (a technique similar to benchmarking), competitive, and comparative analysis (a technique most similar to competitive benchmarking)—were highly relevant, it is unlikely that truly innovative, breakthrough approaches to processes will be identified with these approaches. Even the projects undertaken by higher education associations (such as NACUBO) involve competitive benchmarking, again limiting the magnitude of improvement. Those associated with development and administration of the NACUBO benchmarking project admit that best-in-class benchmarking is “the ultimate goal of the benchmarking process. This type of benchmarking supports ‘quantum

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leaps’ in performance improvements that will lead to the greatest long-run competitive advantage” (Kempner and Shafer 1993, 23).

ISSUES WITH BENCHMARKING IN HIGHER EDUCATION

Despite barriers of culture (or because of them), benchmarking has the potential to teach us how external perspective can enrich internal values.

—Ted Marchese (1995, 5)

Why has benchmarking had such tough going in this sector? Among its findings, NACUBO identified challenges and issues encountered during its benchmarking project to apply benchmarking to and develop a comparative database for higher education (Shafer and Coate 1992). Among them were “variation between institutions” and “the badge of uniqueness.” The former is the result of American colleges and universities having developed their own sets of administrative policies and procedures independently from one another. Consequently, to get comparable data from and mitigate the effects of variation between institutions requires detailed data definitions identifying what is to be included or excluded in any given data elements used to compute the benchmarks. According to Bloomfield (1998), the case author for the AQC case study, defining key measures and their corresponding metrics was the most challenging aspect: “The crucial step in a collaborative benchmarking project is the development of performance measures and metrics for identifying superior performance.” Traditional benchmarking (in industry and standard service processes) typically has been applied to relatively standard, repeatable processes, which facilitates the development of comparable performance metrics. In academic processes in education, however, the processes are often diagnostic in nature and situation-dependent, which is an impediment to the development of comparable performance metrics.

The latter of the two issues is rooted in the belief of most colleges and universities that they are unique. But the mind-set that “unique is good” can keep an institution from recognizing when its uniqueness adds value and is truly a distinguishing characteristic, and when that uniqueness blocks process improvement, innovation, efficiency, and effectiveness.

Perhaps one of the biggest impediments to benchmarking in higher education is that benchmarking requires a foundation or experience in quality management, a concept that many colleges and universities have not yet adopted. AAHE’s Academic Quality Consortium recognized this: “If you don’t understand work as a team-led process, with customers, metrics, outputs, and results, then the basic homework entailed—plus the difficulty of finding external partners on the same page—seems daunting” (Marchese 1995, 5). Another impediment is the jargon of benchmarking—processes, customers, outputs, metrics. Institutions of higher education must either accept these terms or adopt others more “culture-friendly” to their environment. The Queensland case study discussed the need to carefully examine the benchmarking material “for aspects that would be most usefully adopted in the higher education sector” (Stacy 1998, 593), and the AQC case study found that educators need the basics of benchmarking to be translated from business terminology into more palatable language (Bloomfield 1998).

The AQC case study indicated the problems encountered in the study were due to both the “relatively inefficient organizational context of the project and the great difficulties inherent in dealing with academic processes” (Bloomfield 1998, 585). In addition, the author indicated that “collaborative benchmarking success can be achieved only if all participants believe they have a substantial personal interest in the project results, and are pushed by top management to fully participate in project activities” (Bloomfield 1998, 588). Since top management commitment was not fully evident in the AQC benchmarking project, there
was no assurance the project would be fully completed, according to the author.

CONCLUSIONS

Benchmarking is analogous to the human learning process ... a method of teaching an institution how to improve.

—Jeffrey Alstete (1995, iii)

In extensive interviews with faculty, administrators, and trustees from seven institutions of varying size and classification, Robert Birnbaum (1992) found that one of the primary constraints on productivity improvement is the lack of data related to productivity. Benchmarking is a proven mechanism for obtaining data on costs and performance of a process. Although none of the case studies applied the more rigorous generic process or best-in-class benchmarking approach, all of the case study institutions learned how to either improve processes or reduce costs through key findings in their benchmarking studies.

Benchmarking enables an organization to learn best practices—or at least better practices—for improving its operations. All three case studies illustrate Camp’s intent for contemporary benchmarking “learning from others.” According to Camp (1995, 250) “Benchmarking can have no higher purpose than to be known as the effective way to pursue rapid learning and to obtain knowledge to change how we work.” These three case examples are illustrative of how institutions of higher education have learned to adapt the language and practice of benchmarking to their culture and environments in order to change and improve how work is done and processes are performed.

In order to benefit even more from benchmarking, higher education must focus on the following:

• What matters most to its students and stakeholders
• High-cost processes
• Those things that are differentiators for their institutions

This will facilitate process improvements where the impact and payoff will be most beneficial. Marchese (1995, 5) indicated that “for those just starting out, internal benchmarking and same-speed partnerships seem to return highest value.” As benchmarking practice develops and matures in higher education, it will require looking outside the academy to uncover more creative ideas and practices that can be adapted and implemented.

Benchmarking is the difference between teaching yourself how to hit a golf ball and taking lessons from Jack Nicklaus.

—Steven George (1992)

REFERENCES


BIOGRAPHY

Susan West Engelkemeyer is an assistant professor of management at Babson College, where she also served as director of quality from 1993–1997. In 1998 she was on leave from Babson to serve as director of quality initiatives for the American Association for Higher Education in Washington, D.C. Her consulting and research areas include quality and strategic operations management. Her work has been published in Quality Progress and the Journal of Innovative Management. She has served as a senior examiner for the Malcolm Baldrige National Quality Award and as a senior evaluator for the award’s 1995 Education Pilot.

Engelkemeyer earned a doctorate in industrial management from Clemson University. She may be contacted as follows: 320 Luksic Hall, Babson College, Babson Park, MA 02457-0310; 781-239-5017; Fax: 781-239-5230; E-mail: engelkemeyer@babson.edu.