Benchmarking in sponsored programs administration: using the web to analyze nationwide data collection results.

by William S. Kirby and Paul G. Waugaman

Introduction

The Society of Research Administrators International (SRA), the National Association of College and University Business Officers (NACUBO), and the Higher Education Practice of KPMG Consulting, Inc. have jointly undertaken the development of a national benchmarking program. This program has two purposes: (a) to provide participating institutions tools for quantitative analysis of their activities and comparison data and (b) to provide the sponsored programs administration community with performance and practice benchmarks to aid training and development programs.

Two rounds (FY 1998 and FY 2000) of complete data collection focus on institutional sponsored research competitiveness, administrative efficiency, productivity, and organizational practices. The resulting database includes a nationwide sample of academic and non-profit institutions, representing over 40% of total U.S. academic research expenditures. Data are available to participating Institution using a Web-based reporting and analysis tool. This reporting system allows participants to customize and generate institution-specific peer comparisons in a variety of tabular and graphical formats. This brief describes the measures and refers participant institutions to the Web page that allows them to make online comparisons.

Results from the FY 1998 and FY 2000 national surveys are widely available. Visit the SRA International Benchmarking Web page or the Research Management study area at www.higheredbenchmarking.com.

The Need for Customized Reporting

As a result of experience gained during the first round of data collection and feedback, the study leaders moved to the World Wide Web to make the data collection process more efficient and to provide participants with more flexibility and control over the reporting process. A powerful reporting tool is available for the study participants. The following sections describe the data elements and illustrate how the tool can be used to analyze comparative data.

Data Elements and Variables

The following sections describe the various data elements, pre-defined variables, and predefined comparison groups in the system. Refer to the survey definitions for the description of each element and its inclusions and exclusions. See Table 1 for key data definitions.

Indicators and Variables. The performance indicators are organized around the four themes: (a) sustaining or enhancing sponsored projects activity and funding, (b) containing the costs and improving the efficiency of sponsored projects administration, (c) improving administrative services to faculty, and (d) maintaining and improving institutional and sponsor accountability. Table 2 lists the demographic comparison groups for analysis.

Examples of Results

Figures 1 and 2 illustrate the types of analyses that can be done using the Web-based reporting tool. These examples were produced using data from the FY 1998 and early data from the FY 2000 survey. The graph in the first figure plots a hypothetical participant's FY 1998 and FY 2000 data on the number of proposals submitted per 100 faculty FTE reported for each year. The participant shows higher performance than the mean values of all participants and also for comparison groups of the NSF top-100 universities in the sample.

The graph in the second figure plots direct data, not ratio measures. It compares the participant's staffing levels in post-award financial administration with the mean staffing levels of other participants and in the NSF top-100 comparison group. This slide shows a relatively large post-award financial administration staff compared to the means of comparison groups.

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The FY 1998 survey yielded some interesting results with regard to competitiveness and cost and efficiency. Generally, the survey results confirmed the conventional wisdom that sponsored research administration at larger, more research-intensive institutions appear to be more cost effective, having generally higher median levels of proposals and projects per sponsored program administration employee (FTE) or operating dollar. Since the survey did not address the issue of decentralized staff and cost, this is not surprising.

However, the survey also showed that the so-called success rate (the ratio of proposals submitted to the number of awards received in the year), for institutions with smaller research programs was better than the more research-intensive institutions. This would seem to indicate that researchers in these institutions tend to focus their proposal-preparation effort on those projects where they have a higher probability of success in competition, and not to shotgun proposals.

Michael Warnock, who developed a methodology for performance ranking on 18 areas of his own institution against a peer group, used the benchmarking results to make a successful business case for five additional staff, and improved performance in the area that they had targeted as weak. (See the Web site.) Programs not participating in the study could, if they so desired, use the survey questions to calculate their own performance ratios and then compare them to aggregate results published on the website using the same or similar methodology. Of course, the goal of the SRA Benchmarking Task Force is to encourage members to participate in the upcoming survey as the best way to be able to effectively use the survey data. Greater numbers of participants create more reliable results. An online audio presentation for SRA members on the past summary results will be scheduled in the spring.

For Further Information

The Web site will also be the location of a series of presentations intended to demonstrate the utility of benchmarking in program management and operational improvement. The FY 2000 data collection closed 31 December 2001. Web-based analysis opened to participants in January 2002. SPA general members may view selected findings similar to the figures in this paper at www.higheredbenchmarking.com.

Table 1

Data Elements from the 2000 Benchmarking Survey

Data Element	Data Definition
Sponsored, Programs Staffing	FTE staffing for the institution's central sponsored programs administration including both pre-award and post-award financial management functions
Sponsored Programs Costs	Direct operating budgets of the functions included in above
Workload	Number of proposals and awards (competitive, as well as non-competitive), number of active projects, dollar value of active projects, number of funded Pl's
Research Staffing	Total number of faculty FTEs eligible to participate in research and the number of principal investigators or co-Pls
Funding	Expenditures from externally sponsored sources over the preceding five year period, identification of the top three sponsors, and a breakdown of one year's awards by source of funds

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	(Federal, State, Private)
Organization	Organizational structure and reporting lines for sponsored programs administration (pre-award and post-award)
Decentralization	Distribution of sponsored programs administration functions and responsibilities across different organizational units and levels

Table 2

Available Demographic and Comparison Groups

Public Control

Private Control

Land Grant Institutions

Independent Research Institutes, including stand-alone Medical Schools

Institutions with Medical Schools

Minority Institutions

NSF Top 100 (Participating institutions that are among the top 100 in overall research and development expenditures) (a)

NSF Top 101-200 (Participating institutions that are among the institutions ranked from 101-200 in overall research and development expenditures)

Self-selected peers Participants may construct a peer group of other participants

Source: (a)National Science Foundation (2000, Table B-32).

References

National Science Foundation-SRS (2000) Table B-32. Academic Research and Development Expenditures -FY 1999. Washington, DC: National Science Foundation.

William S. Kirby has over 30 years experience in the management of sponsored research, consulting, executive training, and the application of technology. Since 1997 his efforts at KPMG Consulting, Inc. include university research administration and benchmarking issues with a focus on assessment, strategy, and operations. Prior to KPMG, he was Director of NSF's grant management and policy operations and a senior consultant at the Federal Quality Institute. He is a member of SRA's Benchmarking Task Force and Co-Chair of SRA's Evaluation Task Force for 2001-2002. Mr. Kirby has authored numerous publications and won the 1993 Rod Rose Award for the most outstanding article in The SBA Journal.

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