

Examples of Benchmarking Reports in Higher Education

In the following pages, The Hanover Research Council provides examples and links to a variety of benchmarking reports from higher education institutions and associations.

Introduction

A productive process that provides objective measurements for base-lining, goal-setting and improvement tracking, benchmarking is an important component of self-evaluation for higher education institutions.¹ A review of the literature provides seven different benchmarking methodology types, a variety of which are used in the benchmarking study examples provided in this report:²

- ❖ Ideal type standards: A model is created based on idealized best practice, then used as the basis to assess institutions on the extent to which they fit the model.
- ❖ Activity-based benchmarking: Methodology in which a selected number of activities, which are either typical or representative of the range of institutional provision, are analyzed and compared with similar activities in other selected institutions. Activities may be considered solely on their own terms or may act as proxy for overall institutional performance.
- ❖ Vertical benchmarking: Seeks to quantify costs, workloads, productivity, and performance of a defined functional area, for example the work of a student admissions department. As this approach is generally based upon existing organizational structures, data collection is often more straightforward than with other methods. Such initiatives may be limited to the investigation of a single activity or may be multi-dimensional.
- ❖ Horizontal benchmarking: Seeks to analyze cost, workloads, productivity, and performance of a single process that cuts across one or more functional areas (example: all aspects of student admissions irrespective of location within an institution). Results provide a comprehensive view of institutional practice in any particular area, but data collection and interpretation may be problematic. Both horizontal and vertical benchmarks are useful diagnostic tools in identifying and prioritizing opportunities to improve an administrative process or function.
- Comparative/Competitive benchmarking: Involves the use of institutions as comparative performance indicators.

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¹ Alstete, Jeffery W. "Benchmarking in Higher Education: Adapting Best Practices to Improve Quality." *ERIC Digest.* http://www.ericdigests.org/1997-3/bench.html>

 $^{^2}$ Quoted with slight variation from: Commonwealth Higher Education Management Service. "Benchmarking in Higher Education: An International Review." Pg. 14-15.

http://www.acu.ac.uk/chems/onlinepublications/961780238.pdf and Alstete, Jeffrey W. "Benchmarking in Higher Education: Adapting Best Practices to Improve Quality: ERIC Education Report No. 5." ERIC Clearinghouse on Higher Education. Pg. 30-31.

http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/14/d7/56.pdf

- ❖ Functional benchmarking: Similar to comparative benchmarking, except that the group of analyzed competitors is larger and more broadly defined.
- **Generic benchmarking**: Also called "best in class," it uses the broadest application of data collection from different kinds of organizations.

The National Association of College and University Business Officers, which offers colleges and universities a wide variety of benchmarking tools, also provides a "data resources matrix" that outlines types of available data and usage restrictions.³ These data sources, profiled in the figure below, are generally used to varying extents in higher education benchmarking efforts.

Figure 1: Benchmarking Data Resources Matrix

Figure 1: Benchmarking Data Resources Matrix					
Data Source	Data Available	Usage Restrictions			
General					
Integrated Postsecondary Education Data System (IPEDS)	Enrollments, program completions, graduation rates, faculty and staff, finances, and student financial aid	Available to public for free. Most recent data available to institutions through password.			
Association of Governing Boards (AGB) Benchmarking Services	Primarily IPEDS Data but does include other sources	Available only to AGB members with an annual fee of \$750			
National Science Foundation Web CASPAR	Includes selected IPEDS data and data from many NSF surveys including the Survey of Earned Doctorates, Survey of Federal Funds for R&D, etc	ding the Survey of Available to the public for free			
	Endowment and Finance Data				
NACUBO Endowment Study	Data on college and university endowment management and performance. Individual institution data on asset allocation, performance, and spending rate.	Participants receive free access to results through NACUBO's Online Research Tool. Non-participants can purchase.			
Council for Aid to Education Voluntary Support of Education Data Miner	Charitable support data	Report results can be purchased for \$100, student participants receive a discount.			
IPEDS Finance Survey	Net assets, revenues, and expenditures, scholarships and fellowships.	Available to the public for free.			
Delaware Study of Costs and Productivity	Teaching loads, direct costs of instruction, and externally funded research and service productivity.	Free to study participants.			
Moody's Municipal Financial Ratio Analysis (MFRA)	Financial and operating credit statistics	Subscription service providing access to the database and capability to create custom queries			
Facilities Data					
Association of Higher Education Facilities Officers (APPA) Facilities Core Data Survey	Costs per square foot, building age and space use, and personnel costs and staffing levels.	Free to survey participants. Available to non-participants for \$230 or \$150 for APPA members			
Society for College and University	Data on physical size and growth	Participants receive a complete data set.			

³ National Association of College of University Business Officers. "Data Resources Matrix."

<http://www.nacubo.org/x8322.xml>

Data Source	Data Available	Usage Restrictions				
Planning (SCUP) Campus Facility Inventory	patterns of colleges and universities.	Data sets are not sold to non- participants.				
Salary and Benefits Data						
American Association of University Professor (AAUP) Salary Survey	Data on tenure track and benefits of administrative compensation for senior executive positions.	Selected tables are online and available to the public for free. Custom peer comparisons and datasets available for purchases. Full report available to AAUP members for free and can be purchased by non-members.				
College and University Professional Association for Human Resources DataOnDemand	Several salary and benefit surveys, including administrative compensation, mid-level administrative compensation, faculty salary and employee health benefits.	DataOnDemand is available for a subscription fee, based on membership status.				
IPEDS HR Survey	Staff and faculty salaries, benefits, classification and tenure status.	Available to the public for free.				
Benchmarking Survey of Human Resource Practices in Higher Education	Strategic planning, staffing and compensation, benefits, training and development and performance assessment.	Participants receive a custom report and access to the Data Analysis System.				
	Tuition Discounting Data					
NACUBO Tuition Discounting Survey	Institutional student aid, percent of students receiving institutional grants, net revenues, and other related information.	Participants receive free access to results and an online tool, the NACUBO Benchmarking Tool, for peer comparison purposes. Non-participants can purchase results through the NACUBO's bookstore.				

Figure from: National Association of College of University Business Officers. "Data Resources Matrix." Op.cit.

Examples of Benchmarking Reports in Higher Education

The Pennsylvania State University – Benchmarking Procurement Practices in Higher Education

The current economic recession has affected all levels of industry, including higher education. In addition to a weakening financial situation, American institutions of higher education can expect to face increasing scrutiny on their spending and finances. In order to address these changes in the economic and regulatory environment, it is important that colleges and universities address their procurement practices. This study, conducted via a collaboration between Pennsylvania State University's Center for Supply Chain Research and IBM's Public Sector Procurement Consulting Practice, seeks to benchmark the procurement practices of a variety of higher education institutions in order to improvement both the efficiency and effectiveness of higher education procurement practices.

Methodology

The benchmarking study used a comparative benchmarking approach that examined cross-organizational contrasts and similarities. The study sought to measure and evaluate how colleges and universities conduct expenditures and to identify trends in procurement within and across schools.

Institutional benchmarking occurred across 18 criteria that corresponded to key elements of best-in-class procurement practices. These criteria were divided into the following categories:

- Spend Analysis
- Purchasing Strategies
- Purchasing Organization
- Purchasing Process
- Performance Measurement

The institutions were ranked on each benchmarking criteria on a relative scale that ranged from 0=no response, 2=average participation/performance, and 3=leading participation/performance. Additionally, seven internal measurement criteria were used:

- ❖ Total dollars spent
- ❖ Dollars spent through P-cards
- ❖ Dollars spent through group agreements
- Cost savings
- Contract utilization

- Number of suppliers
- Supplier consolidation efforts

Key findings related to each of the benchmarking criteria categories are as follows:

- ❖ Spend Analysis: The institutions studied are not exploiting the use of spend analysis to drive value. Improved analysis will improve procurement practices.
- Purchasing Strategies: The institutions are beginning to engage in strategic supplier relationships.
- ❖ Purchasing Organization: User-focused and cross functional procurement management practices are increasing while gate-keeping procurement management practices are being used less often by universities.
- Purchasing Process: More institutions are increasing efficiencies through eprocurement.
- Purchasing Policy: The institutions had well-documented purchasing policies.
- ❖ Performance Measurement: The measurement criteria used for suppliers and procurement management may need to be better synchronized.

Link: http://www.smeal.psu.edu/cscr/pub/ibmprocu.pdf

The University of Oklahoma Health Insurance Benefits Benchmarking Study

Over the previous five years, the University of Oklahoma's employees have experienced significant increases in the cost of medical insurance coverage as well as reductions in the level of benefits received. In response to these changes in health insurance benefits, a committee was formed to analyze the University of Oklahoma's healthcare plan options and benefit levels, funding and contribution strategies, competitive position, and the possible effects that employee wellness programs and incentives might have an employment healthcare trends. The University conducted a health insurance benefits benchmarking study as a part of this analysis.

Methodology

The University hired an outside contractor to conduct a comparison of the University of Oklahoma's benefit plan with the plans of 14 peer higher education institutions

and five local employers. The figure below profiles the comparator groups, programs included in the study, and elements of comparison.

Figure 2: Benchmarking Study: Comparing the University of Oklahoma's Offerings to the Market

One imgo to the real data				
Comparator Institutions	Employers	Programs Included in study (active employees and retirees)	Elements of Comparison	
University of Alabama at Birmingham University of Arkansas University of Colorado University of Illinois Iowa State University University of Iowa University of Kansas University of Missouri University of Nebraska University of New Mexico Ohio State University Oklahoma State University Texas A&M University University of Texas	Chickasaw Nation Dell Integris Health State of Oklahoma York International	Medical Prescription Drugs Dental Life AD&D Vision Disability Wellness Other ancillary programs	Medical plan types (i.e. PPO, HMO, POS) Deductibles Co-payments Co-insurance Out-of-pocket maximums Lifetime maximums Employee contribution (employee only, employee + spouse, employee + child, employee + family)	

Figure from. "Appendix F: Benchmarking Study: Comparing OU's Offerings to the Market." Pg. 25. http://www.ou.edu/healthcareoptions/Report.pdf>

Results

The study provided a variety of results and recommendations. Among these where findings that indicated that the University's medical benefit options are commonly offered by peer institutions and that the medical benefits are competitive with the institutions studied.

Differences between the University of Oklahoma's insurance benefits and peer institutions included the University's allocation of spending on employee and dependent coverage, the cost of spouse and family coverage, and the fact that the University was unique in its provision of free employee-only medical, dental, and retiree medical insurance coverage. Recommendations focused on way to make the insurance benefit plan both attractive to University of Oklahoma employees and cost-efficient for the University.

Link: http://www.ou.edu/healthcareoptions/Report.pdf

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University of Arkansas Intramural/Recreation Sports Program (IMRS) Benchmarking Study

The University of Arkansas's IMRS department conducts a benchmarking study with 17 peer institutions every other year. The benchmarking study methodology and results are described briefly within the institution's annual report.

Methodology

The IMRS benchmarking study measures multiple variables, including program staffing levels, total budget, faculty/staff facility membership fee amounts, and usage priorities of recreation facilities. The University of Arkansas uses the following institutions as comparators in its benchmarking efforts: Auburn University, Florida State University, Michigan State University, Mississisppi State University, Oklahoma State University, Penn State University, Texas A&M University, Texas Tech University, Vanderbilt University, University of Alabama, University of Florida, University of Georgia, University of Missouri, University of Nebraska, University of Tennessee, University of Texas, and the University of Virginia.

Results

The IMRS department had the lowest number of FTE staff assigned to programming (5 FTE staff compared to an average of 12.4 FTE staff at comparator institutions). The University also had both the lowest total budget as well as the lowest faculty/staff facility membership fee.

Link: http://coehp.uark.edu/NCATE/COEHP Annual Report 2004.doc

National Association of Student Personnel Administrators (NASPA)-BearingPoint Student Services/Student Affairs Benchmarking Study

The student services/student affairs benchmarking study is the result of collaborative efforts by NASPA and BearingPoint consultants. The benchmarking information is meant to be used by institutions of higher education as part of an ongoing institutional measurement and performance efforts and provides institutions with an external standard for evaluating the cost and quality of internal student services/student affairs departments.

Methodology

The benchmarking study included four comparison groups: (1) institutions with student populations under 5,000, (2) institutions with student populations between 5,000 and 9,000, (3) institutions with student populations between 9,000 and 19,000, and (4) institutions with student populations of over 19,000.

The benchmarking criteria that were measured and evaluated can be divided into nine categories as follows:

- ❖ Distribution of revenue sources: Includes the percent of revenue from grants, revenue from institution, revenue from fees, and other revenue sources.
 - Revenue sources by institutional enrollment size
- * Revenue sources by function: Functions include career services, intercollegiate athletics, student affairs, judicial affairs, orientation, special populations, student activities, counseling, residence life, health center, commuter affairs, admissions, financial aid, intramural, and others.
 - Examined by institution size
- Median student services staffing FTE
 - By institution size
- **Staffing diversity**: Includes the percent of staff distribution across races/ethnicities.
- * Retention rate of freshman to sophomores
- Offering of mediation services, special interest housing, orientation courses
- ❖ Orientation program fees: Includes the percent of institutions charging fees to freshman and/or transfer students.
- ❖ Student affairs: Functions reported to student affairs, including service learning/community service, sports and recreation, residence life, judicial programs, Dean of Students, student health, housing, orientation, university police/security, multicultural affairs, commuter affairs, intramural sports, disability support services, student union, and counseling services.
- **Counseling services**: Includes the number and type of topics covered by institution, whether or not a limit was placed on the number of counseling sessions per student, and whether or not counseling services are outsourced.

Results

The benchmarking study results corresponded with benchmarking criteria categories. Results indicated that almost half of student services revenue was derived from fees, particularly in the case of larger institutions. The greatest source of student services

revenue came from residence life for institutions in all four student population size categories. Student freshman to sophomore retention rates were also similar across institutions, ranging from 79% to 81% for institutions in the four student population size groups.

The majority of institutions provide mediation, student special interest housing and first year transition courses. Other results indicated trends in student services/student affairs reporting responsibilities by function and the variety of counseling topics covered by the division

Link:

http://www.bearingpoint.com/Documents/StaticFiles/specialtysitefiles/higheredbenchmarking/2002 NASPA Survey Final Summary.pdf

University of Missouri Sponsored Program Administration Benchmarking Study

The University of Missouri's sponsored program administration benchmarking study compared 1998 and 2000 benchmarking data in order to measure and evaluate staffing levels, weaknesses, and peer institution comparisons. Some of the benchmarking data was also used in the University's annual report.

Methodology

The University of Missouri collected a variety of raw data points, included the cost of central pre-award sponsored projects administration, the number of FTE staff in administration, the number of new or competitive proposals submitted, the number of active and/or funded Principal Investigators, and the number of active projects, among many others. This raw data was then analyzed through calculated ranking elements, which included:

- Number of proposals submitted per 100 faculty
- ❖ Percent of faculty who are active investigators
- Sponsored project dollars awarded per faculty FTE
- Sponsored research funding growth rate over five years
- New awards as a percent of proposals submitted
- Proposals submitted per central pre-award SPA FTE
- Pre-award SPA cost per proposal submitted
- ❖ Number of awards per pre-award SPA FTE
- Pre-award SPA cost as a percentage of the dollar amount awarded
- Number of funded awards per post-award financial FTE
- Post-award financial administration cost per award
- ❖ Sponsored project dollars per post-award financial FTE

- Sponsored project post-award financial administration costs as a percentage of expenditure
- Number of funded and/or Principal Investigators per central pre-award SPA FTE.
- ❖ Number of funded Principal Investigators per central post-award SPA FTE
- ❖ Percent of Sponsored Projects Accounts Receivable over 120 days

A comparison of 1998 and 2000 results indicated that while certain benchmarking criteria experienced growth, including the percent of faculty who are active investigators, the sponsored project dollars per faculty, the sponsored research funding growth rate over five years, the number of awards per pre-award SPA FTE, and the number of funded and active Principal Investigators per central pre-award SPA FTE, other criteria did not.

Weak areas included the amount of new awards as a percent of new proposals submitted, the sponsored project dollars per post-award financial FTE, and the sponsored project post-award financial administration costs as a percentage of expenditures.

Link:

http://www.bearingpoint.com/Documents/StaticFiles/specialtysitefiles/higheredbenchmarking/Michael Warnock Presentation.pdf

College and University Professional Association for Human Resources (CUPA-HR) Benchmarking Survey of Human Resources Practices in Higher Education

CUPA-HR partnered with the Higher Education Benchmarking Consortium, the University of California-San Diego and the University of Michigan-Ann Arbor to develop a new tool for benchmarking higher education human resources departments. In times of increased pressure for cost containment, demands for service improvements, a dynamic regulatory environment, and changes to business technologies, it is especially important for organizations to evaluate their performance over time and against their peers. The CUPA-HR benchmarking tool, which includes survey data from 167 colleges and universities across the country, facilitates performance measurement in institutions of higher education.

Methodology

The benchmarking study included a web-based data collection process and analysis tool in a survey of over 167 institutions of higher education. In order to measure the performance of HR departments at institutions of higher education, a "balanced

scorecard" was used to reflect and rank four organizational perspectives: the financial, customer, business process, and learning and growth perspectives. A variety of metrics underlying these four perspectives are used to benchmark and compare HR department performance across institutions.

Examples of metrics collected in the survey are as follows:

❖ Institutional Profile

- a. Public vs. private
- b. Structure of institution
- c. Person to whom the Chief HR Officer reports
- d. Carnegie Classification

❖ HR Profile – HR departments vary tremendously across institutions

- a. Ratio of Human Resources FTE to Total Employee Headcount
- b. Total Benefits costs as a percentage of gross payroll
- c. Gross payroll as a % of total institutional operating budget
- d. Cost per hire (for staff)

HR Performance Measures

- a. Practice deployment indicators respondents were asked at what level they deployed over 100 practices in the areas of strategic planning, staffing and compensation, benefits, training and development, HR Culture, performance assessment, and leadership. Levels ranged from "No: Not even on the institutional radar screen yet" to "Expert: A sound, systematic approach fully responsive to all requirements. Approach is fully deployed without any significant weaknesses or gaps."
- b. Practices were divided into (1) strategic planning, (2) staffing and compensation, (3) benefits, (4) training and development, (5) culture, (6) performance assessment, and (7) leadership.

Results

Results of the benchmarking study included the fact that the majority of institutions' HR strategic planning, staffing, and compensation are at the "advanced" and "intermediate" levels. On the other hand, the training and development and performance assessment practices of higher education HR departments tended to be at a "beginner" level.

Link:

http://www.bearingpoint.com/Documents/StaticFiles/specialtysitefiles/higheredbenchmarking/CUPA-HR Benchmarking 01 Exec Summary.pdf

University System of Georgia Benchmarking and Management Review

The University System of Georgia benchmarking study, conducted in collaboration with two outside consulting firms, was the first part of a three-part study that was conducted to inform the University System's strategic planning in areas such as faculty and professional development, post-secondary readiness, curriculum, admissions standards, teacher quality, library services, distance and on-line education, business partnerships, enrollment planning, facilities planning, and international studies.

Methodology

The University System of Georgia's peer group was indentified via statistical factor analysis using 18 mission-related criteria, including number of degrees awarded by level, total research expenditures, land-grant status, number of academic programs, number of FTE faculty, and others. The benchmark indicators used in the study were chosen based on a review of the literature. Indicators were divided into four categories:

- ❖ Input: The human, financial, and physical resources received to support programs, activities, and services.
- ❖ Process: The means or methods used to deliver programs, activities, and services.
- **Output**: The quantity of products produced.
- ❖ Outcome: The quality of the benefit or impact of the programs, activities, and services on students, states, and society.

The figure below shows specific indicators and the usage of these indicators by category.

Figure 3: University System of Georgia Benchmarking Indicator Methodology

Indicator	Coverage of Indicator			
Input Indicator				
Average SAT composite score	All institutions but MCG			
% of entering freshman who are National Merit Scholarship Finalists	UGA, Tech, GSU			
% of students who are part-time by level	All institutions by MCG			
Average GRE, GMAT, LSAT, MCAT, DAT, VAT scores of entering students	UGA, Tech, GSU, MCG			
Unrestricted state appropriations plus tuition revenue per FTE student	All institutions			
% of entering freshman enrolled in learning support	All institutions but UGA, Tech, GSU, MCG			

Indicator	Coverage of Indicator	
Process Is		
% of total undergraduate credit hours taught by tenure- track faculty	All institutions but MCG	
Sponsored research expenditures per full-time faculty member	UGA, Tech, GSU, MCG	
Total institutional support expenditures as a % of total E&G expenditures	All institutions	
Total unrestricted instruction and related (academic support and student service) expenditures per FTE student	All institutions	
Output in	ndicators	
Annual number of continuing education programs and enrollments	All institutions	
Annual number of cooperative extension contracts	UGA	
Number of contracts/formal arrangements to provide workforce training	State Colleges, Two-Year Colleges	
Freshman to sophomore retention rate	All institutions but MCG	
Four-year graduation rate by race/ethnicity	All institutions but MCG	
Six-year graduation rate by race/ethnicity	All institutions but MCG	
Outcome	indicators	
Alumni satisfaction	All institutions	
Student satisfaction	All institutions	
Employer satisfaction	All institutions	
Annual income from patents	UGA, Tech, GSU, MCG	
Distribution of enrollment by level and race/ethnicity	All institutions	
Presence of formal ties to business and industry	All institutions	
Job placement rate of students in occupational/vocational programs	State Colleges, Two-Year Colleges	
% of academic programs eligible for accreditation that are accredited	All institutions	
Number of patents per FTE faculty	UGA, Tech, GSU, MCG	
% of entering freshman who complete associate degree/certificate programs and/or transfer to a four year institution	State Colleges, Two-Year Colleges	
% of FTE faculty receiving externally sponsored funding related instruction, research, and/or service activities	Regional and State Universities	
% of graduating students employed or pursuing further education within one year of graduation	All institutions	
Performance of Graduates on GRE and professional school entrance exams	All institutions but State and Two-Year Colleges	
Private giving received (\$) annually over the past three years	All institutions	

Figure form: Pappas Consulting Group Inc. "University System of Georgia Benchmarking and Management Review." Pg. 7-9. http://www.usg.edu/usg_stats/benchmark/exec_summary.pdf>

The benchmarking study demonstrated that, overall, University System of Georgia sectors performed within the normative ranges for the performance indicators across the peer institutions.

Performance strengths for the University System of Georgia institutions included retention rates from freshman to sophomore year, student body diversity, relationship with the local community and businesses, and the percent of students in two-year institutions completing associates degrees or transferring to senior institutions.

Link: http://www.usg.edu/usg_stats/benchmark/exec_summary.pdf

The National Association of College and University Business Officers Student Financial Services Benchmarking Survey

The National Association of College and University Business Officers (NACUBO) developed a survey that collected data on 12 student financial services performance measures.⁴ While the study is only in the data collection process, a review of the survey provides valuable insights into the methodology and criteria used in higher education benchmarking regarding student financial services.

Methodology

All NACUBO member institutions are invited to participate in the benchmarking study in order to benchmark the efficiency of their institution's student financial services.

The survey measures a variety of institutional characteristics and variables, including:

- **❖** Total number FTE students
- ❖ Total number FTE/PT student financial service positions
- Student financial services operating budget
- ❖ 12-month unduplicated headcount: Including the total number of students with an unpaid balance, the total dollar amount of unpaid balance amounts, and the total number of student accounts placed in collections.

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⁴ National Association of College and University Business Officers. "Research: NACUBO Benchmarking for Student Financial Services." http://www.nacubo.org/x44.xml>

- ❖ Student payments: Including dollars received from student payments and percent of student payments received through different channels and methods.
- ❖ Outstanding account receivables and loan receivables: Including the total dollar amount charged to student accounts, amount of outstanding payments, total dollar amount of institutional loan receivables, and the total dollar amount of institutional loan receivables written off in 2008.
- ❖ Third-party sponsored accounts: Including the number of FTE staff processing third-party student billing/payment and the total billing sent to third-party payers.
- ❖ Staff training and years of employment: Including hours of formal training and years of experience of staff.

Benchmarking data collection not yet complete.

Link: http://www.nacubo.org/documents/business_topics/SFSBenchmarking.pdf

<u>Note</u>

This brief was written to fulfill the specific request of an individual member of The Hanover Research Council. As such, it may not satisfy the needs of all members. We encourage any and all members who have additional questions about this topic – or any other – to contact us.

Caveat

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