

Workload and Productivity in an Era of Performance Measures

by *Henry Lee Allen*

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Recent state concern with faculty workload and productivity in public colleges and universities has led officials to consider adopting performance measures—and even to link state allocations to these measures.

Regulating workload and productivity, legislators believe, will placate students, parents, and taxpayers who seem dissatisfied with the supposed tendency of faculty members to emphasize research over undergraduate instruction. Media pundits and critics—often advocates of economic deregulation—cite alleged abuses of professional discretion in calling for regulation of academic markets. Faculty mistrust or “deprofessionalization” will not abate soon.

Cost pressures and demands by the federal government for states to monitor legislative compliance accompany this consumerist rhetoric. Together, these concerns have led to the consideration of statewide performance measures to assess faculty workload and productivity. A recent survey notes that 24 of 48 examined states have adopted these measures.¹ Eight states, the report adds, link budget allocations to progress on performance measures; 15 other states contemplate similar actions. Half the respondents—officials in statewide agencies with jurisdiction over their systems of higher education—note that adopting performance indicators has stimulated noticeable improvements in faculty workload and productivity.

This chapter explores state policies concerning performance measures of faculty workload and productivity. We first show the origins of the move to performance indicators by examining the social context. Next, we analyze reports, published by statewide agencies, on the use of performance measures for policy implications.

The chapter addresses three questions:

- Why do statewide agencies increasingly favor performance measures to monitor faculty workload and productivity?
- How do state officials conceptualize and measure academic work—a difficult task given its interconnected nature—within and across types of colleges?
- What are the implications of the use of performance indicators for the academic profession?

USING PERFORMANCE INDICATORS TO MEASURE FACULTY PRODUCTIVITY

Many factors have led state officials to adopt performance indicators of faculty workload and productivity.² In the 1980s, tax revolts produced calls for cost containment and for efficient and effective allocation of scarce funds.³ In the 1990s, states were confronted with escalating costs of higher education and with competing costs of health care, prisons, and other social services. Declining state revenues, associated with global restructuring of industries and markets and with economic recession, accompanied these rising costs. Enrollments increased as more students became eligible to attend public higher education institutions. The families of many students, forced to pay a greater proportion of college costs, complained about affordability.

These complaints reflected policy changes in funding sources. State subsidies to public higher education decreased as a percentage of total funding. State appropriations per full-time enrolled (FTE) student fell in the late 1970s, bounced back in the mid-1980s, and then fell off again late in the decade. Net tuition revenue per FTE student rose appreciably; the family share of total funding increased even more rapidly.⁴ Thus, when college costs increased more rapidly than states or families could absorb them, officials shifted the financial burden to the students.⁵

A major ideological rationale for the implementation of performance measures—the quality control movement in the corporate sector—accompanied economic recession and public policy reversals. Sudden, unexpected, and uncontrollable economic transformations in the global market forced major industries to reduce costs and upgrade technologies during the 1980s. Industries responded by experimenting with new managerial strategies. Total quality management (TQM), for example, required measurement of performance indicators at strategic points of the production process to insure the manufacture of quality products. TQM rapidly diffused among corporate officials, many of whom sat on college and university governing boards and on statewide coordinating boards. TQM, institutional restructuring, and the use of performance measures invaded higher education when similar cost pressures surfaced.

Technological innovations accompanied these external influences. The accountability and assessment movements of the 1980s required measurement of learning and other outcomes in higher education.⁶ Rapid advances in information technologies—especially technologies permitting management of large computerized databases—led to adoption of performance measures of desired outcomes. New data sources, such as the Integrated Postsecondary Education Data System (IPEDS) and National Study of Postsecondary Faculty (NSOPF), allowed officials to measure many routine features of higher education. Large state systems, anticipating demands from legislators, accrediting agencies, foundations, and benefactors, collected more sophisticated data.

A combination of economic, political, ideological, and technological factors thus led state bureaucracies and public higher education systems to measure faculty workload and productivity by performance indicators.

A SURVEY OF STATE REPORTS

Powerful actors dominate the debate over faculty workload and productivity because of the rapid diffusion of ideas and techniques related to performance measures. Business executives, politicians, benefactors, and detractors, distrusting informal controls on faculty job performance, mandate their own solutions for enhancing academic work. About 34 states, notes a recent study, use performance indicators to assess professors; 14 states use these measures to determine funding.⁷ Typical indicators include total hours faculty work each week and the amount of time they spend teaching and related duties. Most states conceptualize productivity poorly, since they neglect key qualitative, organizational, and interconnected dimensions.⁸

Table 1 lists the states that assess public higher education through performance reports. We examined the reports of 16 states, grouped into four regions, to gauge how states use performance indicators to measure faculty workload and productivity.⁹ We report on:

- the dimensions of each state's higher education system,
- the key performance indicators and their

TABLE 1

STATES WITH HIGHER EDUCATION PERFORMANCE REPORTS ISSUED OR PLANNED AS OF 1996 (N=32)

State	Institutions Included		Link to Funding?	Lowest Level of Detail for Public Release
	Number	Types		
AL	16	Public	Yes	Institutions
AR	32	Public	Yes	Institutions
AZ	3	Public		Universities
CA	287	Public & Independent		Systems
CO	28	Public	Yes	1995: Types of institutions By 1997: Institutions
CT	24	Public	Yes	Institutions
FL	37	Public	2-yr colleges	Institutions
GA	34	Public	Yes	Institutions
HI	11	Public		Institutions
ID	6	Public	Yes	Institutions
IL	62	Public		Institutions
IN	16	Public		1984-89: Institutions; 1989-1996: System; 1997: New emphasis on institutions
KS	6	Public	Yes	Institutions
KY	22	Public	Yes	Institutions
LA	20	Public	Yes	Institutions
MD	13	Public		Institutions
MI	28	Community Colleges		Institutions
MN	30	Public	Yes	Institutions
MO	25	Public	Yes	Institutions
NJ	45	Public & Independent		Independent: System; Public: Institutions
NM	23	Public		Institutions
NY	250	All degree-granting		1994: Institutional Type (SUNY only) 1998: Institutions (All degree-granting)
NC	118	Public & Independent		Institutions: Statistical Abstract only
OH	24	Public	Yes	Institutions
SC	33	Public	Yes	Institutions
RI	3	Public	Yes	Institutions
TN	59	Public & Independent	Yes	Institutions
TX	97	Public	Yes	Institutions
UT	9	Public		Institutions
VA	40	Public	Yes	Institutions
WV	16	Public	Yes	Institutions
WI	26	Public	Yes	Institutions

SOURCES: McGuinness, 1994; Ruppert, 1994; Layzell and Caruthers, 1995; Ewell, 1996; Schmidt, 1996; McKeown, 1996; NYSED, 1996. Chronicle of Higher Education Almanac (September 2, 1996).

relevance for measuring workload and productivity,

- the policy issues raised by the indicators.

Coverage depended on the scope and rigor of the materials produced by the state agencies.

Northeastern States

New York and New Jersey, note senior officials, rely increasingly on performance measures to evaluate faculty workload and productivity. Most performance measures evolved from a collaboration between state officials, academic representatives, and other constituencies, though some obstacles surfaced during the collaboration and the ensuing implementation. Collaborators occasionally consulted faculty members about conceptualizing and measuring academic work.

New York's public higher education institutions collectively serve nearly 400,000 students in two systems. The State University of New York (SUNY) primarily serves upstate residents; the City University of New York (CUNY) serves a more nontraditional student clientele in the nation's largest metropolis. Both systems show substantial differences in mission, quality, and students.

Public universities in New York, hoping to improve undergraduate teaching, moved towards outcome assessment in the late 1980s. These universities also hoped to distribute scarce funds more effectively and—in a preemptive move—to increase their public accountability. Colleges and universities developed measures to scrutinize their academic programs, including course loads, teaching schedules, student data, enrollment profiles and projections, and degrees earned.

These local changes, and the national move towards assessing faculty workload and productivity via performance measures, convinced New York officials to suggest statewide indicators by the early 1990s.¹⁰ Legislators sought to justify postsecondary expenditures to a skeptical public. Measuring and publicizing performance measures—such as graduation or completion rates, costs, and faculty workload and productivity—would increase public support for higher education by directing attention to state policy goals, help monitor the system, and placate dissatisfied students and taxpayers.

But New York's loosely coupled, complex, and diverse public higher education enterprise inhibited development of statewide indicators and coordination of common databases. So did the lobbying of New York's independent institutions. Publics and independents expressed concern over possible sanctions, time param-

eters, public disclosure, inadequate or unwarranted comparisons, and misleading reports. A focus on mundane activities, inadequate conceptualization, limited funding, and slow acceptance also plagued implementation of the indicators. Studies also found little evidence that relying on these indicators met stated goals; their intrusion was disproportionate to their contribution. Community embrace, consequently, was less than expected.

The road to performance measurement in New York was decidedly problematic. Stymied at attempts at adopting a statewide system or common measures of institutional performance, state authorities mandated institutional reports. But the movement persists. New York's Board of Regents, responding to a legislative mandate, will soon report on the state's entire system, including data obtained from standardized performance measures of faculty workload and productivity.

Higher education in New Jersey incorporates 19 community colleges, eight state colleges, one public teaching university, three public research universities, and 14 independent colleges and universities. The community colleges, the state colleges, and the teaching university stress undergraduate instruction. A \$3.2 billion budget supports about 285,000 undergraduates, 9,300 faculty, and 50,000 graduate students.

New Jersey, like New York, is still developing and implementing statewide performance indicators of faculty work. Legislators, influenced by developments in other states, decided in 1994 to restructure New Jersey's higher education system to maximize returns on public investment and to contain costs. The resulting New Jersey Commission on Higher Education spearheaded the movements for accountability and performance measures. *New Jersey's Renewable Resource* (1996), its first examination of public and independent institutions, discussed the advantages and obstacles involved with encouraging accountability. Focusing on costs and affordability, the commission emphasized strategic public investment in higher education, especially optimal funding levels.¹¹

The commissioners desired to engage in benchmarking: to compare and contrast operations in New Jersey and its competitors, using the IPEDS and NSOPF databases to make baseline comparisons. Commissioners also wanted

to ascertain the causes and effects of the state's high out-migration rates (undergraduates traditionally leave New Jersey to pursue higher education in nearby states). Officials asked if funding levels for higher education would meet the policy goals of the state within an increasingly competitive global economic marketplace and to decide what steps were needed to enhance the quality of New Jersey's colleges and universities.

Performance measures were considered necessary. The commission stressed performance measures pertaining to students: enrollments, access, affordability, retention, transfer ratios, graduate rates, academic achievement (degrees awarded), satisfaction levels, and employability. These issues were assessed by available measures in the accountability report; comparisons were made within and across sectors, with national data, as well as with the state public higher education systems of New York, Pennsylvania, Virginia, and North Carolina.

The commissioners, though still developing performance measures, do not blame the faculty for the state's complicated cost containment problems and give little priority to measuring faculty workload and productivity or to faculty development and service. The report barely mentions the role of professors, due ostensibly to the absence of suitable data. Rather, the commissioners focused on enhancing research performance and funding—a prelude to an enriched economic infrastructure.

New Jersey officials chose not to use performance indicators punitively, but to gauge current conditions and future needs in a competitive economic atmosphere. Neither New York nor New Jersey officials foresee an abatement in the movement toward performance measurement since current legislation promotes the practice. Productivity concerns may intensify, especially in an economic downturn. New Jersey officials agree upon rudimentary measures of student outcomes, but measuring faculty workload and productivity remains in flux. By proposing effective indicators of their work performance, professors at public colleges and universities in these states may forestall intrusive external mandates. Cooperation seems a more viable bargaining strategy than confrontation.

Southeastern States

Cost containment was the motive for performance measurement in Maryland.¹² Maryland legislators wished to ameliorate budget shortfalls during the early 1990s and to reduce the escalating gap between institutional funding expectations and fiscal limitations. Competitive pressures were also instrumental: Maryland ranked lowest in funding among states affiliated with the Southern Regional Education Board. In 1995, to prevent mid-year cutbacks and to stabilize allocations and costs, state officials linked the budget to performance measures of productivity as part of a four-year strategic plan for the state's 13 academic institutions.

The Board of Regents had adopted a policy on faculty workload and responsibilities for all institutions in the University of Maryland system in 1994. The Regents assigned the Maryland Higher Education Commission, which controlled the Employee Data System, administrative oversight for the policy. Stressing faculty involvement in undergraduate education, the Regents would monitor workload and performance through institutional plans allowing for differences in mission, not through state-wide measures.

Redirected reward structures would include incentives to emphasize instruction. Guidelines called for faculty at comprehensive universities to devote 65 to 75 percent of their time to instruction (seven to eight courses per academic year), and 15 to 25 percent of their time to scholarship. Professors at research universities would give 45 to 55 percent of their time to instruction (five to six courses) and 35 to 55 percent of their time to research. Professors in both sectors would devote 5 to 15 percent of their time to public service.

Adjustments in these parameters must be justified at the departmental level or be compensated by external resources. University presidents must specify the mechanisms used to monitor compliance in their performance reports. Maryland thus opted for "flexible standards" to control the costs of postsecondary education.

In Virginia, the legislature failed to enact a recent proposal connecting institutional performance measures to funding, but interest in accountability remains high. Administrators of Virginia's public higher education system—

also wishing to reduce costs and enhance quality—worked with the Department of Planning and Budget and the State Council of Higher Education to develop measures of institutional achievement.

Consistent with other state systems, most performance indicators in Virginia related to student matters: graduation and progression rates, retention rates, transfer rates, employability ratios, and expenditures.¹³ But state officials did not neglect faculty workload and productivity. These officials listed specific, sophisticated performance indicators. The state, for example, attempted to disentangle instructional costs by measuring student credit hours per FTE faculty. Officials tried to ascertain classroom utilization and research and public service expenditures per full-time faculty. Virginia's work is more advanced than in many other states.

In 1997, the State Council of Higher Education reported on performance indicators for faculty. This report compared findings from 1991 and 1996 surveys.¹⁴ The major trends included:

- an increase in the length of the average faculty workweek from 52 hours in 1991 to 55 hours in 1996,
- a decrease in the average proportion of time faculty spent in research from 27 percent to 21.5 percent between 1990 and 1996, and
- an increase in the average proportion of time faculty spent in teaching from 56 percent to 60 percent between 1990 and 1996.¹⁵

Kentucky's eight public universities and 14 community colleges enroll over 150,000 students and receive over \$700 million annually in tax revenues. KRS 164.095, enacted in 1992, mandated a comprehensive accountability and performance measurement process for all public institutions of higher education. Legislators in Kentucky, as elsewhere, wished to monitor the effectiveness of state institutions, maximize public investment, and contain costs through performance measurement. The law directly connected fiscal appropriations to measurement outcomes.

The General Assembly delegated performance measurement to the Council on Higher Education, under the purview of the Kentucky Accountability Committee. The council collaborated with senior academic administrators

from each institution to develop elaborate performance measures of educational quality, student progress, research and service, and resource utilization. Educational quality indicators included survey responses, pass rates on licensure exams, accreditation, and assessment activities. Degrees awarded, persistence and graduation rates, student credit hours, and enrollments were indicators of student advancement. To assess the quality of research and service, officials adopted cost-benefit measures that compared expenditures to receipts from grants or other services. Indicators of faculty workload, course demand, instructional contact hours, and space utilization completed the roster of measures.

Kentucky's approach to performance measurement distinguished between systemwide measures of aggregate performance across institutions and institutional items, attuned to differences in mission. Three distinct phases characterized Kentucky's approach:

- Phase I. The council established baseline measures, methods, and data to monitor the system at-large during the 1996-97 biennium.
- Phase II. The council devised institutional measures, adapted to particular missions in the 1997-98 biennium.
- Phase III. The council will compare performance to targeted goals in the 1998-2000 biennium.

Kentucky officials used incentive funds strategically to encourage compliance.¹⁶ Data on faculty workweeks, instructional contact hours, proportion of time spent in teaching, and courseloads were reported across institutional type since 1992. This data shows no major changes; faculty in Kentucky approximated national trends.

South Carolina officials, similarly concerned about costs, quality, and accountability, phased in a sophisticated system of performance measurement for their public colleges and universities. Spurred by the passage of Act 359 in 1996 by the General Assembly, state officials established a Commission on Higher Education that developed 37 quality indicators to rate the performance of each of their 33 institutions (Table 2). These indicators assess progress in nine categories: mission focus, faculty quality, instructional quality, institutional

cooperation and collaboration, administrative efficiency, entrance requirements, graduate achievement, institutional user-friendliness, and research funding.

The rhetoric of “benchmarking” and “best practices” informed the conceptualization and measurement process. A coalition of politicians, legislators, corporate leaders, regents, and benefactors helped to develop the perfor-

mance measures. So did pressures from accrediting agencies, such as the Southern Association of Colleges and Schools. But three task forces, staffed with senior academic leaders from research universities, four-year colleges, community colleges, and technical or comprehensive colleges, introduced distinctions in measurement outcomes by institutional type or mission.

TABLE 2

**HIGHER EDUCATION PERFORMANCE INDICATORS
INSTITUTIONAL HISTORICAL INFORMATION, BENCHMARKS, AND TARGETS SUMMARY
ILLUSTRATION INSTITUTION**

Rating Scale: 1=Noncompliance 2=Needs Improvement 3=Satisfactory Progress 4=Meets Goal 5=Exceeds Goal
(Note: At the discretion of the Commission a score of 6 may be awarded for exemplary performance, or a 0 for noncompliance after a probationary period.)

Indicator Number & Description	Sector Average	Sector Benchmark	Beginning Institutional Average	Proposed Institutional Benchmark	Actual Performance	Sub-Part Commission Rating	Commission Rating
1. Mission Focus							
A. Expenditure of funds to achieve institutional mission—Instruction	N/A	N/A	40.0%	42.0%	42.0%	N/A	5
B. Curricula offered to achieve mission	Yes	Yes	Yes	Yes	Yes	N/A	5
C. Approval of a mission statement	Yes	Yes	Yes	Yes	Yes	N/A	5
D. Adoption of a strategic plan to support the mission statement	Yes	Yes	Yes	Yes	Yes	N/A	5
E. Attainment of goals of the strategic plan	Yes	Yes	Yes	Yes	Yes	N/A	5
2. Quality of Faculty							
A. Academic and other credentials of professors and instructors							
A. 1. Percent of all faculty meeting SACS requirements	100.0%	100.0%	100.0%	100.0%	100.0%	4	4.5
A. 2. Percent of faculty teaching undergraduate courses exceeding SACS requirements	70.0%	N/A	65.0%	70.0%	72.0%	5	4.5
B. Performance review system for faculty to include student and peer evaluations	80.0%	100.0%	80.0%	90.0%	90.0%	N/A	4
C. Post-tenure review for tenured faculty	70.0%	100.0%	70.0%	80.0%	80.0%	N/A	4
D. Compensation of faculty	\$55,389	\$59,642	\$53,500	\$53,443	\$54,443	N/A	4
E. Availability of faculty to students outside the classroom							
E. 1. Percent of faculty receiving a rating of satisfied	90.0%	N/A	87.0%	90.0%	93.0%	5	4
E. 2. Percent of students satisfied with academic advisors	75.0%	N/A	70.0%	75.0%	72.0%	3	4
F. Community and public service activities of faculty for which no extra compensation is paid	80.0%	N/A	90.0%	95.0%	96.0%	N/A	5
3. Instructional Quality							
A. Class size and student/teacher ratios							
A. 1. Average class size—Lower Division	25.1	22-23	26.0	25.1	24.1	5.0	4

TABLE 2 (CONTINUED)

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Indicator Number & Description	Sector Average	Sector Bench- mark	Begin- ning Institu- tional Average	Pro- posed Institu- tional Bench- mark	Actual Perfor- mance	Sub-Part Commis- sion Rating	Commis- sion Rating
Average class size—Upper Division	10.8	10-11	9.3	10.8	9.6	3.0	4
A. 2. FTE students per FTE teaching faculty	15.2	15-16	17.3	16.9	16.9	4.0	4
B. Number of credit hours taught by faculty	238.0	N/A	220.0	230.0	233.0	N/A	5
C. Ratio of f-t faculty as compared to other f-t employees (expressed as a % of total)	33.8%	29.6%	26.0%	26.5%	27.7%	N/A	5
D. Accreditation of degree-granting programs	96.0%	100.0%	92.0%	92.0%	92.0%	N/A	4
E. Institutional emphasis on quality teacher education and reform							
Program Quality—NCATE accreditation	Yes	Yes	Yes	Yes	Yes	5	4
Student Performance							
a. Percentage of students passing NTE—Prof. knowledge	80.0%	N/A	83.0%	85.0%	85.0%	4	4
b. Percentage of students passing NTE—Speciality Area	75.0%	N/A	80.0%	85.0%	83.0%	3	4
Critical Needs							
a. Percentage of graduates in critical shortage areas	30.0%	N/A	20.0%	25.0%	25.0%	4	4
b. Percentage of Teacher Ed. graduates who are minority	8.0%	N/A	4.0%	6.0%	5.0%	3	4
4. Institutional Cooperation and Collaboration							
A. Sharing and use of technology, et. al.	Yes	Yes	Yes	Yes	Yes	N/A	5
B. Cooperation and collaboration with private industry	Yes	Yes	Yes	Yes	Yes	N/A	5
5. Administrative Efficiency							
A. Percentage of administrative costs as compared to academic costs							
Administrative costs	8.1%	7.6%	9.0%	8.1%	8.1%	4	5
Academic costs	70.9%	63.5%	70.0%	71.1%	71.1%	5	5
B. Use of best management practices	80.0%	100.0%	65.0%	80.0%	77.0%	N/A	3
C. Elimination of unjustified duplication of and waste in administrative and academic programs	Yes	Yes	Yes	Yes	Yes	N/A	5
D. Amount of general overhead costs (per FTE student)	\$3,078	\$2,631	\$3,000	\$2,804	\$2,327	N/A	6
6. Entrance Requirements							
A. SAT and ACT scores of student body (% of 1st time freshmen exceeding goal)	75.0%	75.0%	73.0%	75.0%	85.0%	N/A	6
B. High school standing, grade point averages, and activities of the student body	70.0%	N/A	80.0%	82.0%	84.0%	N/A	5
C. Postsecondary nonacademic achievement of student body	Yes	Yes	Yes	Yes	Yes	N/A	5

TABLE 2 (CONTINUED)

**HIGHER EDUCATION PERFORMANCE INDICATORS
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Rating Scale: 1=Noncompliance 2=Needs Improvement 3=Satisfactory Progress 4=Meets Goal 5=Exceeds Goal
(Note: At the discretion of the Commission a score of 6 may be awarded for exemplary performance, or a 0 for noncompliance after a probationary period.)

Indicator Number & Description	Sector Average	Sector Benchmark	Beginning Institutional Average	Proposed Institutional Benchmark	Actual Performance	Sub-Part Commission Rating	Commission Rating
D. Priority on enrolling in-state students (expressed as a % of in-state students)	70.0%	70.0%	61.0%	63.5%	63.5%	N/A	4
7. Graduates' Achievements							
A. Graduation Rate							
Rate 1 (1st time students)	48.0%	N/A	52.0%	53.0%	53.1%	5	4
Rate 2 (Transfer-out students)	28.0%	N/A	26.0%	27.0%	27.0%	4	4
Rate 3 (Transfer-in students)	45.0%	N/A	50.0%	51.0%	50.0%	3	4
B. Employment rate for graduates	80.0%	N/A	85.0%	88.0%	92.0%	N/A	3
C. Employer feedback of graduates who were employed and not employed	85.0%	N/A	87.0%	90.0%	88.0%	N/A	4
D. Scores of graduates on postundergrad. prof., grad., or employment-related exams and certification tests	91.2%	95.0%	85.0%	88.0%	88.0%	N/A	5
E. Number of graduates who continue their education	25.0%	N/A	20.0%	21.0%	22.0%	N/A	5
F. Credit hours earned of graduates	108.0%	110.0%	120.0%	115.0%	115.0%	N/A	4
8. User-Friendliness of Institution							
A. Transferability of credits to and from the institution	Yes	Yes	Yes	Yes	Yes	N/A	5
B. Continuing education programs for graduates and others	1,123	N/A	732	800	750	N/A	3
C. Accessibility to the institution of all citizens of the state							
C. 1. Percentage of Other Race students	13.0%	N/A	14.0%	15.0%	15.5%	5	5
Retention of Other Race students	65.0%	N/A	55.0%	60.0%	63.0%	5	5
Retention of Non-Other Race students	75.0%	N/A	80.0%	80.0%	81.0%	5	5
9. Research Funding							
A. Financial support for reform in teacher education	101.0%	105.0%	103.0%	104.0%	103.0%	N/A	3
B. Amount of public and private sector grants	108.3%	105.0%	102.5%	103.0%	102.0%	N/A	3
TOTAL RATING							165
MAXIMUM POTENTIAL RATING							185
PERFORMANCE PERCENTAGE							89.0%

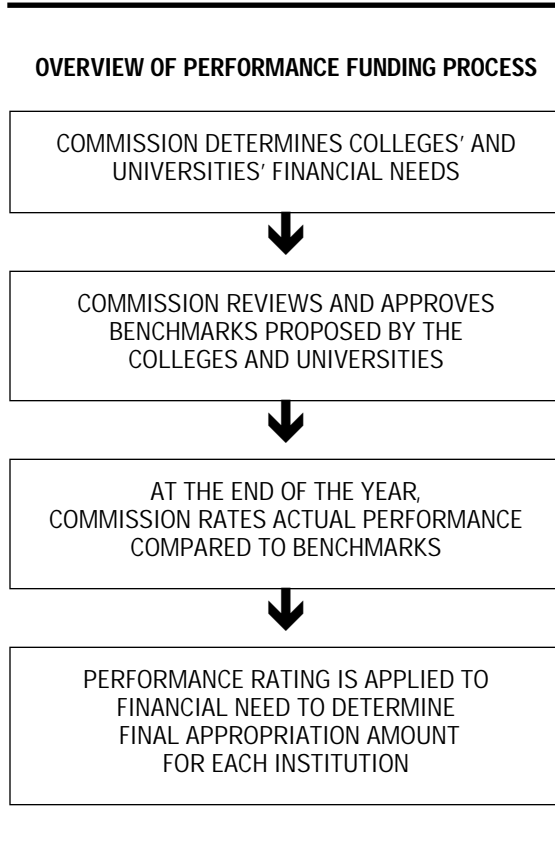
South Carolina is developing one of the region's most elaborate methodologies for performance funding. But the state has not singled out faculty workload and productivity as

the primary problem with public higher education in South Carolina.

In 1997-98, the commission monitored 14 indicators in the nine areas; the number will

grow to 26 in 1998-99, and to 37 in 1999-2000. Under Act 359, South Carolina connected funding to accomplishments on these measures. The performance funding methodology must be reported annually to the General Assembly (Figure 1).

FIGURE 1



Mississippi, in contrast to Kentucky and South Carolina, is in the beginning stages of performance assessment. An initial report on faculty workload and productivity is pending. Persistent, acute revenue shortfalls prompted legislators to pass the Mississippi Budgeting and Strategic Planning Act (1994). This act inaugurated performance measurement and strategic planning for all funded state agencies. It required the Board of Trustees of State Institutions of Higher Education to report semi-annually on institutional and statewide performance indicators of instruction, research, public service, academic support, student services, institutional support, operations and maintenance, and scholarships. The

reports compare year-to-date measures and targeted goals, including freshmen retention rates, graduation rates, racial distribution rates for faculty, proportion of faculty with doctorates, research grants, average hours faculty spend in public service, expenditures, and recruitment rates. Political and economic conditions will dictate the rate at which performance measurement evolves in Mississippi.

Most southeastern states adopted performance measurement to contain costs in an era of competing demands; few states adopted these measures to respond to “faculty-bashers.” These assessments, though evolving at different rates, diffused rapidly, and most states in the region intend to continue their development (Table 3).

Midwestern States

The Missouri Coordinating Board for Higher Education (CBHE) oversees the state’s public two-year technical college, 17 community colleges, 13 colleges and universities, 58 technical institutions, and its proprietary schools. These postsecondary institutions served nearly 300,000 students and granted almost 50,000 degrees and employed over 7,500 full-time faculty in 1997. Their budget was about \$1 billion in FY 1999. Missouri, a leader in the performance indicators movement, achieved national visibility for its Funding For Results (FFR) program, a performance measurement and funding system.¹⁷

Missouri implemented FFR after the 1992 defeat of a state tax proposal to increase funding for higher education.¹⁸ CBHE, aiming to rebuild public support and funding for higher education, collaborated with campus leaders to develop a framework for performance funding. FFR, which thoroughly integrated accountability systems into the higher education system, resulted from these deliberations. A coalition of political, corporate, civic, and academic leaders, working under CBHE auspices, anticipates trends and problems facing Missouri’s public institutions, including cost containment, quality, competition, and global economic transformations.¹⁹

Missouri’s goals include access, quality, and efficiency; specific activities defy encapsulation. Northeast Missouri State University was the test site for many techniques borrowed from industry.²⁰ CBHE then expanded the program to all public colleges and universities;

TABLE 3

PERFORMANCE FUNDING — A STATE OVERVIEW

State	Funding	Status	Number of Indicators	Timeline
Arkansas	FY 95-96 \$10,000	Implemented	7 goals; 16 indicators	Implemented in 1995
Colorado	Pending legislation	Legislation passed. Development of indicators in process	To be determined by Commission	<ul style="list-style-type: none"> Indicators established by June 1997 Indicators to Legislature by 1998 Funding begins in 1999-2000
Florida (Comm. Coll) (University System)	\$12,000.00 \$5,000.00	Implemented	3 indicators 5 indicators	Implemented in 1996
Kentucky	FY 96 \$3,000.00 or 0.5%	Approval of performance indicator system by CHE July 1996	15 indicators	<ul style="list-style-type: none"> performance March 1997 funding recommendations for 1997-1998
Missouri	1.2% (\$7,010,00) for 4-yr institutions 0.9% (\$799,690) for 2-yr institutions	Implemented	21 indicators	Implemented in 1993
Ohio (Comm. Coll. Only)**	FY 96 \$1,500,000	Implemented	9 statewide expectations	Implemented in 1996
South Carolina	100% of higher education funds	Legislation passed 5/96. Developed measures and benchmarks in progress.	9 critical success factors 37 indicators	Jan. 1997 regulations presented to legislature. July 1999 100% funding begins.
Tennessee	5.45% (\$26.6 million for FY 94-95)	Implemented	10 indicators	Implemented in 1979

SOURCE: South Carolina Commission on Higher Education, Performance Funding Special Report No. 2, (September 1996).

* Florida is currently considering implementing performance-based program budgeting that could possibly link performance to 100 percent funding.

** Ohio is currently considering performance funding for all of its institutions of higher learning.

some reports also mention participation by Missouri's 26 independent colleges and universities.

State officials were especially concerned about the quality of instruction and research at the system's 30 public campuses. CBHE, supported by subsequent legislation, therefore provided incentives to improve teaching and learning and tied appropriations to progress in attaining quality goals. These goals included the quality of graduates, access of underrepresented groups, and improved teaching and learning. Four-year institutions must increase graduation rates and the quality of prospective teachers and students. Community colleges must increase transfer, job placement, and

degree and certification rates. FFR also called for continued investment to enhance institutional missions in accord with five-year reviews, to improve the performance of technical institutions, and to develop effective telecommunication systems. Missouri boasts of significant returns on targeted investments between 1992 and 1996.

CBHE's publications amplify the strategies, indicators, and procedures used to implement FFR's basic goals. The 1997 annual report highlights the state's strategic plan for public higher education, including CBHE's Missouri Student Assistance Resource Services (MOSTARS), which helps students and their families afford postsecondary education.²¹

Institutional involvement occurred in three phases—in 1995, 1996, and 1997. The University of Missouri began to participate during Phase III.²²

A 1998 proposal to the governor, drafted by Missouri's Department of Higher Education and CBHE, specifies faculty workload policies among 24 goals.²³ All tenured and tenure-track faculty, proposes Goal 18, must average a nine-hour teaching load at research institutions and 12 hours at other four-year colleges and universities.²⁴ Compliance with the specified goal will be an institutional prerogative.

Missouri's reports contain little data on faculty response or performance to this point, though they cite several institutions for attaining distinction in instructional quality. But faculty members have little choice but to go along with a program that they did not design. Missouri's substantial investment in specifying performance measures bears careful watching.

Illinois policymakers invoked the familiar litany of concerns about cost containment, undergraduate teaching, accountability, and global competitiveness to justify their attempt to streamline and restructure their public system of higher education, including performance indicators.

The Illinois Board of Higher Education (IBHE) spearheaded the state's work in performance measurement. IBHE's Priorities, Quality, and Productivity (PQP) initiative seeks to curtail the costs of higher education, maximize return on the state's investment in education, and enhance the performance of the public colleges and universities by strengthening the quality of its academic institutions, accentuating their distinctive missions, and fostering strategic innovation and flexible basic operations.

PQP targeted faculty development incentives and restructuring faculty priorities around undergraduate instruction. The initiative emphasized assessment of the performance of professors. Wishing to collect statewide data on faculty work, IBHE officials required public institutions to report annually on workload and productivity and to substantiate efforts to improve quality.

IBHE officials provided anecdotal evidence of instructional innovation, rather than a list of performance indicators. This evidence included the decision by faculty at Southern Illinois University at Edwardsville to sanction

"meritorious" teaching in its tenure and promotion policies. IBHE also praised Governors State University for enrolling the entire faculty in the PQP faculty development initiative. Many proposed instructional initiatives, IBHE acknowledged, varied from disciplinary norms and from traditional academic labor market incentives. IBHE remained concerned about faculty-student contact, long-term strategic planning, faculty turnover, and faculty salaries. But the board, acknowledging resistance, will likely soon implement a more stringent form of performance measurement.

The use of performance indicators in Indiana mirrors common concerns about costs, quality, and productivity. Indiana's Commission for Higher Education (CHE) translated these concerns into concrete proposals in 1993 by constructing 12 campus-level performance indicators.²⁵ Six measures assessed instructional productivity: annual sections taught per FTE faculty member, annual credit hours per FTE faculty, pass rates on licensure and certification exams, degree completion rates, satisfaction, success, and employability of recent graduates, and instructional expenditures per student FTE. Thus half the indicators aimed to redirect faculty concern to undergraduate teaching.

Outcome measures for research and public service included the amount of external funds generated per faculty FTE and average faculty hours per week spent in public or professional service. A composite measure of institutional quality included the national rank of departments and schools. CHE assessed administrative productivity by noting the ratio of all staff FTEs to faculty FTEs and the ratio of administrative staff FTEs to faculty FTEs. The twelfth indicator estimated support costs.

By 1995-97, CHE collected data for nine productivity measures for each of the 16 university campuses in the Indiana system.²⁶ Community colleges have yet to receive the same level of scrutiny. Trends in Indiana portend even greater emphasis on performance measurement as budgetary procedures are refined.

Iowa's efforts at performance measurement closely resemble South Carolina's. The state's Board of Regents endorsed a set of 43 indicators to benchmark its higher education system. A March 1998 report prepared for the Board suggested these indicators. The indica-

tors were adopted to monitor five major institutions of higher education: the University of Iowa, Iowa State University, the University of Northern Iowa, Iowa School for the Deaf, and Iowa Blind and Sight Saving School. The first three institutions had developed measures to augment their strategic plans even before the regents officially adopted their indicators. The Board and academic leaders are collaborating to streamline and standardize data collection and to adjudicate overlaps and incongruities in implementing measurement schema.

Iowa cited usual pressures to explain the use of performance measurement: the need for quality, access, diversity, and accountability. Higher education leaders in Iowa assembled comparative databases with peer institutions and standardized databases on key aspects of faculty workload. These leaders desired meticulous assessment of instructional productivity of tenured faculty; 31 of the 43 performance items related to faculty concerns. These concerns included undergraduate and graduate education, research and public service, and educational technology. Specific measures included faculty credit hours, proportion of senior faculty teaching undergraduates, and percentage of introductory courses taught by senior faculty. Measures of the quality of campus facilities, access, affordability, funding, expenditures, and external support completed the list. Institutions must report annually on their performance.

The performance measurement movement involved other key midwest states. Wisconsin, responding to demands for quality, effectiveness, access, diversity, efficiency, and cost containment, developed performance indicators to assess its state colleges and universities.²⁷ In Ohio, the AAUP chapter at Central State University responded to state pressures to restructure faculty workload by challenging the state's right to refuse to bargain over the issue.²⁸ Faculty productivity will remain a salient issue in public systems of higher education throughout the Midwest.

Western States

The accountability movement has moved westward. The Colorado Commission on Higher Education (CCHE), responding to passage of HB 96-1219, the "Higher Education Quality Assurance Act," in 1996, will compose quality indicators to assess institutional perfor-

mance, student satisfaction and success, employer satisfaction, and the overall performance of the higher education system. A report on specific quality indicators is forthcoming; preliminary proposals include measuring graduation rates, degree rates, expenditures, diversity, instructional quality, and faculty workload.

Nevada is also exploring the use of performance indicators. In 1996, the University and Community College System of Nevada (UCCSN) surveyed to determine faculty workload. UCCSN faculty, noted the study, exceeded national norms in the proportion of time devoted to instructional activities: 56 percent of the workweek for university faculty, 77 percent for community college faculty. The time allocation of faculty members was generally congruent with the missions of their institutions. There is therefore little furor over faculty productivity in Nevada.

Idaho standardized its faculty workload policies just as it adopted an initial performance measurement scheme. The normal workload is 15 credit hours, depending upon institutional mission and faculty preferences. In conjunction with the Idaho Board of Education, the Presidents' Council recently adopted 11 performance indicators. The state's seven public colleges and universities must provide campus-level data about enrollments, credit hours, retention rates, graduation rates, and expenditures.

In 1997, the Oregon University System completed a major study of faculty workload and productivity.²⁹ System officials respected the contributions of the 2,957 faculty members in the Oregon State System of Higher Education (OSSOHE). No polemics here; instead, Oregon's report constructively described the complications of faculty work and presented a positive portrait of faculty workload and productivity.

About 80 percent of OSSOHE faculty members, the study noted, were full-timers. These faculty members worked over 50 hours weekly, produced 2.3 million credit hours, averaged 11.8 credit hours, and experienced an 8.5 percent increase in productivity since 1991. The report emphasizes the economic value of faculty research—OSSOHE faculty averaged \$70,812 in research revenues per full-time member—and suggests incentives to foster innovation. The report also notes the positive

contributions of community service. The study includes concerns about quality assurance but also stresses the importance of adequate faculty salaries for enhancing and maintaining excellence. The strident rhetoric justifying performance indicators elsewhere has not invaded this state system.

The 220 sites in the Arizona system of higher education enroll over 103,000 students. Estimated FY 1998 revenues were \$2 billion, including about \$700 million in state appropriations. The state's public universities have an estimated \$4 billion impact on Arizona's economy.

Arizona's Board of Regents (ABOR) benchmarked the instructional and professional activities of faculty at the University of Arizona, Arizona State University, and Northern Arizona University since 1992. In 1998, the Regents issued a report card detailing how these universities performed on specific indicators in seven areas: improving undergraduate education, strengthening graduate education, developing research and encouraging economic development, providing access to higher education, capitalizing on new technologies, enhancing constituency relations, and improving efficiency.

ABOR assessed instructional productivity by measuring persistence, retention, transfer, and graduation rates and by responses to surveys of satisfaction with academic advising. The Regents assessed faculty involvement in undergraduate instruction by classroom contact hours, teaching ratings, and alumni responses. Performance measures common to other systems target expenditures and resource utilization. ABOR used four ratings of overall performance: superior, satisfactory, needs improvement, or unsatisfactory. ABOR's approach to performance measurement, as reflected in the 1998 report card, reflected the national tendency to emphasize enrollment growth management, cost containment, and accountability assurance.

Efforts to measure faculty work appeared to be related to gaining public support for the state's expanding higher education enterprise. A 1998 study on faculty workload and productivity, conducted by ABOR in collaboration with the Arizona Faculties Council, found that the empirical data did not support popular misconceptions about faculty. The report, for instance, established that in Fall, 1997 regular

faculty members taught nearly 90 percent of all FTE students, and the bulk of lower and upper division courses, including 43.7 percent of total lower division student credit hours.

Performance measurement dispelled other myths about academic work. Arizona faculty members devoted more than 35 hours weekly to instruction, thereby exceeding national norms for amount of time devoted to teaching and approximating these norms in the length of the workweek (52 to 55 hours per week). Arizona's endeavors at performance measurement redounded to the faculty's favor; research verified the outstanding performance and strategic value of its faculty.

Perhaps the same fate awaits policymakers in Hawaii. In FY 1994-95, the Hawaiian university system employed 3,065 FTE faculty across 10 campuses and served nearly 50,000 students. Expenditures for faculty amounted to \$176 million or 29 percent of the university's total budget.

In 1997, the University of Hawaii conducted a study of faculty workload. The same year, the state government issued a report that documented expenditures, revenues, and working conditions and questioned institutional reporting.³⁰ This report encouraged the Board of Regents, charged with supervising the public higher education system, to clarify its faculty workload policies. It noted significant variations in faculty workload, in contrast to the Board's 1982 guidelines requiring university faculty to teach 24 semester hours or eight courses. Auditors also noted that no minimum course load was specified and that a foreign scholar was paid \$128,000 without fulfilling his teaching obligations. The terse report foreshadows a performance measurement system. State officials already allude to the use of performance measures in other states. Hawaiian public higher education may succumb to accountability pressures affecting mainland state systems, despite increased instructional productivity amid decreased funding levels.

CONCLUSION

Other states have also adopted performance indicators.³¹ Arkansas began its program in 1994, using the same rationalizations and measures cited in other states.³² Montana has recently adopted a system of performance items.³³ So has Texas; in fact, Texas A&M Uni-

versity received a grant from the Fund for the Improvement of Postsecondary Education to refine its performance items.³⁴ Massachusetts espoused rhetoric pursuant to performance measurement.³⁵ These states, too, cited costs, quality, diversity, and productivity to justify increased accountability.

Some scholars question the use of performance measures. The measures, suggested Mingle (1997), fail to assess the complex behaviors found in higher education institutions, provide no information about which process most affect productivity or *how* the processes achieved desired outcomes. The real factors influencing performance outcomes, Mingle noted, may be difficult to disentangle, and may not even be measurable. Last, routine outcomes can make institutional performance ritualistic.

State-level mandates, noted Gaither (1995), will be ineffectual unless they stimulate voluntary, campus-level change. European attempts at performance measurement, he added, floundered because they failed to measure the informal dimensions of productivity that are most salient among faculty.³⁶ Neal (1995) also questioned the usefulness, mechanistic conceptualization, hasty implementation, suspect linkages, and problematic validity and reliability of performance measures.³⁷ The convenience or availability of standardized databases, Ruppert hypothesized, may inordinately influence the penchant for performance items.³⁸ Calling performance indicators superficial and noting mixed results and maladaptive uses, she, too, questioned their effectiveness. The uncritical use of performance indicators, she added, might deflect attention from more important issues.³⁹

Brinkman (1992) demonstrated that ecological factors and social conditions—such as competitive pressures in labor markets—affected costs and productivity. Many costs, he noted, were beyond the scope of any particular academic organization.⁴⁰ These systematic and unavoidable pressures usually transcended economic downturns. Policymakers, Brinkman implied, must account for external forces when assessing costs prior to measuring productivity.

Productive institutions, found Gilmore and To, were *less* likely to have a formal evaluation system for faculty and staff.⁴¹ Organizational factors, such as student body composi-

tion, accounted for productivity. So did intangibles, such as environmental synergy and organizational culture.⁴² Middaugh and Hollowell, studying accuracy in measuring productivity at the University of Delaware, called for disaggregating the relationship between academic and administrative productivity.⁴³ Even proponents of TQM conceptualized productivity more as process than a static outcome.⁴⁴ Scholars thus raised fundamental questions about the long-term impact of performance measurement.

The performance measurement movement emerged when social, political, technological, and economic forces, especially shrinking resources, led state officials to propose formal assessments. Right now, the movement appears unstoppable, though not every state gives primacy to faculty workload and productivity. Professors at public colleges and universities must therefore battle for fairness in the indicators, for equity when the indicators are linked to compensation, and for public trust and political sympathy.

NOTES

¹ SHEEO, 1998. The State Higher Education Executive Officers (SHEEO), a leading policy commission for academic administrators, conducted the survey between December 1996 and March 1997.

² Ruppert, 1992; Gaither, 1995; Hollins, 1992.

³ Brinkman, 1992.

⁴ Meyer, 1998.

⁵ Dunn, 1992; Neal, 1995.

⁶ Ruppert, 1995.

⁷ Meyer, 1998.

⁸ Gilmore and To, 1992; Meyer, 1998.

⁹ These states included Colorado, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Maryland, Mississippi, Missouri, Nevada, New Jersey, New York, Oregon, South Carolina, and Virginia.

¹⁰ Briefing paper, 1996; Freeman, 1995.

¹¹ A second report, *Higher Education Costs and Revenues* was released in May 1997. This report contrasts costs per FTE within and across sectors in New Jersey as a backdrop to national comparisons.

¹² Albright, 1995.

¹³ Three major reports have examined the implications of these measures for student interests. See Commonwealth of Virginia, "Performance Funding Overview," *Definitions and Reporting Periods for Core Performance Measures for Higher Education*, and Vir-

ginia Higher Education Indicators of Institutional Mission: Who Are the Faculty?

¹⁴ The sample size for the 1996 survey included 3,319 randomly-selected faculty respondents, with a 72 percent response rate.

¹⁵ The report also detailed many performance indicators for student contact hours, instructional duties, advising, research activities, and service responsibilities by institution, mission, tenure status, rank, discipline, FTE enrollments, and employment status. See Commonwealth of Virginia, Council of Higher Education, 1997.

¹⁶ These strategic initiatives are documented in the *Annual Accountability Report Series of Kentucky Higher Education 1996*.

¹⁷ Stein and Fajen, 1995.

¹⁸ Ibid.

¹⁹ *Blueprint for Missouri's Higher Education*, a 1998 report, outlines the coalition's goals and performance measures for higher education.

²⁰ Stein and Fajen, 1995.

²¹ *Show-Me Higher Education: Results of the Blueprint*.

²² The documents do not detail the funding formulas used in conjunction with the performance indicators.

²³ *Integrated Strategic Plan*.

²⁴ The proposal did not suggest the workload of community college faculty.

²⁵ See "Measuring Campus-Level Productivity: A Policy Paper."

²⁶ The missing indicators examined the success, satisfaction, and employability of recent graduates; national rank, and hours faculty devoted to public service.

²⁷ Boatright, 1995.

²⁸ Magner, 1998.

²⁹ *Faculty Work and Results* (1997). Legislators require biennial reports on the system.

³⁰ *Audit of the University of Hawaii's Management of Faculty Workload*.

³¹ Gaither, 1995.

³² Albright, 1995.

³³ Ibid.

³⁴ Hayes, 1995.

³⁵ Healy, 1998.

³⁶ Gaither, 1995, 100.

³⁷ Neal, 1995, 7.

³⁸ Ruppert, 1995, 17

³⁹ Ibid., 16.

⁴⁰ Brinkman, 24-26.

⁴¹ Gilmore and To, 1992, 44.

⁴² These scholars also observed a tradeoff between instructional and research productivity, depending on the *ratio* of characteristic inputs to outputs.

⁴³ Middaugh and Hollowell, 1992.

⁴⁴ Heverly and Cornesky, 1992, 104.

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