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ABSTRACT

This report proposes 25 guidelines that should be considered in making productivity improvements in the following five key areas: (1) instruction, (2) research and public service, (3) overall academic functions, (4) administrative functions, and (5) state policies affecting higher education. In some cases, data are presented that illustrate the kinds of analyses that the Board of Higher Education, the Illinois Community College Board, governing boards, and campuses will have to complete in order to make decisions addressing these issues. Recommendations for institutions to consider cover such issues as the following: institutional capacity in relation to student and occupational demand; the breadth and quality of instructional units; program costs; scope of offerings; staffing patterns and faculty workloads; academic support and technologies; operational efficiency; and the effectiveness of state-level processes, reporting, and regulatory requirements. Statistical tables provide information that includes: undergraduate program-major enrollments and degrees awarded for 1988, 1989, and 1990; state and external support figures for research and public service for fiscal year 1990; undergraduate enrollments and costs by field for 1988, 1989, and 1990; occupational status of community college completers from selected occupational programs for 1990; and public university expenditures from state appropriated funds for administration and support functions in relation to instructional, research, and public service expenditures for 1990. (GLR)

August, 1992

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

GUIDELINES FOR PRODUCTIVITY IMPROVEMENTS IN ILLINOIS HIGHER EDUCATION

In November 1991, the Board of Higher Education resolved to meet as a committee of the whole to examine the "priorities, quality, and productivity of Illinois higher education" in order to address productivity improvement issues. The Board also called upon the various governing and coordinating boards, commissions and agencies, and colleges and universities to establish parallel processes and to work with the Board of Higher Education on this most important matter. The purpose of this report is to propose guidelines for making productivity improvements in Illinois higher education.

Productivity improvements at all levels in Illinois higher education are achieved by eliminating low quality and low priority programs and activities in order to redirect resources to higher priorities. High priorities for Illinois higher education include: restoring the competitiveness of faculty and staff salaries; off-setting reductions in financial aid and addressing tuition increases for financially needy students; addressing deficiencies in funding for library materials, instructional support, and repair and renovation projects; and sustaining important programmatic initiatives such as improvements in undergraduate education, workforce preparation, and minority student achievement.

This report proposes twenty-five guidelines that should be considered in making productivity improvements in five key areas: instruction, research and public service, overall academic functions, administrative functions, and state policies affecting higher education. While the guidelines are presented in a statewide context, systems and campuses will ultimately be responsible for making specific productivity improvement decisions. Although opportunities to achieve productivity improvements are numerous, not all institutions will pursue the same opportunities in the same way or over the same time period. Nor should productivity improvement decisions be made on the basis of a single guideline but, rather, on the collective findings among all guidelines combined with the judgment of faculty members, administrators, and board members. Campuses must have the flexibility to achieve productivity improvements in a manner that is consistent with their mission and sense of priorities.

Productivity improvements must also be achieved at the state level. The Board of Higher Education needs to examine its processes and reporting requirements to determine how productivity can be improved by modifying or eliminating certain activities. The Board also needs to provide leadership in attempting to modify policies and procedures in other areas of state government that adversely affect productivity in higher education.

Some productivity improvements can be made immediately, while others can only be made over longer time frames. Over the next few months, efforts must be made to implement short-term productivity improvements to free-up resources to address priorities in fiscal year 1993. At the same time, these efforts should set the stage for longer-term productivity improvements and should be reflected in budget development for fiscal year 1994 and beyond.

The following sections provide guidelines for making productivity improvements in instruction, research and public service, overall academic functions, administrative functions, and state policies

affecting higher education. In some cases, data are presented that illustrate the kinds of analyses that the Board of Higher Education, the Illinois Community College Board, governing boards, and campuses will have to complete in order to make decisions addressing these issues. The Board of Higher Education staff will work closely with the staffs of the Illinois Community College Board, the governing boards, and individual institutions to identify further analytical work that needs to be completed at each level.

Productivity of Instructional Units

The productivity of individual instructional units should be evaluated on the basis of multiple criteria that focus on the general topics of capacity, quality, and cost. Productivity improvement decisions should be based on the collective findings on all criteria. The following guidelines and tables are illustrative of those that institutions should consider, but the list is not exhaustive. In the course of the Committee of the Whole's discussions with the Illinois Community College Board, governing boards, and institutions, some guidelines may be modified and others added.

Capacity in relation to student demand. Excessively high or low enrollments and number of degrees granted per program are indicators of potential productivity problems. Excessively high enrollments compared to resources may cause large class sizes, closed course sections, and high student-faculty ratios, jeopardizing quality. In contrast, low enrollments may drive up costs and lead to an inability to offer courses on a timely basis for students to graduate. Institutions should evaluate the capacity of each degree program in relation to student demand and to the number of similar programs offered at other institutions.

Table 1 displays the average annual undergraduate full-time-equivalent (FTE) program-major enrollments and degrees granted for the period fiscal year 1988 through fiscal year 1990 for public universities. The number of programs in each discipline, the number of campuses offering programs, and the number of majors and degrees granted per program are presented. On average, public universities enroll 194 student-majors and graduate 41 students per undergraduate program per year. The various disciplines, however, exhibit considerable variation. The ten Accounting programs, for example, enroll 431 student-majors per program on average and graduate 130 students per year. The ten Area and Ethnic Studies programs, by contrast, enroll an average of eight majors per program and graduate three students per year. Table 1 illustrates the kind of analysis that each public university and community college should conduct for all levels of instruction (i.e., certificate, associate, baccalaureate, master's, first professional, and doctoral).

Institutions should consider eliminating programs whose credit hours, enrollments, and degree production significantly deviate from the statewide or institutional average credit hours, enrollments, and degrees produced per program, particularly if other factors exist such as high program costs or low occupational demand.

Capacity in relation to occupational demand. Colleges and universities provide instruction, in part, to meet changing workforce demands in order to maintain and expand the state's economy. National and state reports in the last decade have underscored the importance of education to future economic development and have reported increasing demand for occupations requiring some higher education. Imbalances between occupational demand and the number of students enrolled and degrees granted in associated academic programs may contribute to low productivity.

Tables 2 and 3 present the most recent Illinois projections of demand for occupations related to higher education programs. Table 2 lists higher education-related occupations projected to require large numbers of employees to fill new and existing jobs between 1988 and the year 2000. Table 3 presents higher education-related occupations from two employment demand perspectives. Presented first are those occupations projected to grow at least twice as fast as the state average of 12.7 percent by the year 2000 and with employment needs of less than 500 per year, followed by those higher

Table 1

UNDERGRADUATE PROGRAM-MAJOR ENROLLMENTS AND DEGREES AWARDED AT ILLINOIS PUBLIC UNIVERSITIES: FISCAL YEARS 1988, 1989, AND 1990

Field	Number of Campuses Offering Programs	Number of Programs	Average Annual FTE Majors	Average Annual Degrees Awarded	Average Annual Majors Per Program	Average Annual Degrees Per Program
All Disciplines	12	696	133,432	28,449	192	41
Accounting	10	10	4,311	1,302	431	130
Agriculture and Environmental Science	5	23	2,093	537	91	23
Architecture and Urban Planning	2	4	1,242	232	311	58
Area and Ethnic Studies	5	10	80	31	8	3
Business	12	51	19,551	4,407	383	86
Communications	10	18	4,944	960	275	53
Computer Science	10	10	3,813	595	381	60
Criminal Justice and Fire Science	8	9	2,866	729	318	81
Education	9	12	2,605	422	217	35
Teacher Education (by level)	11	22	6,792	1,726	309	78
Teacher Education (by subject)	10	67	4,341	1,404	65	21
Engineering Technology	7	11	2,262	1,065	206	97
Engineering	5	40	9,222	1,886	231	47
English, Literature, and Speech	12	23	5,424	1,572	236	68
Foreign Languages and Literature	10	42	1,005	270	24	6
Health Professions and Services	11	35	2,386	941	68	27
Home Economics	7	17	2,767	677	163	40
Individualized Study	12	19	1,769	965	93	51
Legal Studies	2	2	186	53	93	27
Life Sciences	12	28	4,938	1,056	176	38
Mathematics	11	16	2,020	391	126	24
Multi/Interdisciplinary Studies	4	4	1,265	299	316	75
Nursing	6	6	1,382	583	230	97
Philosophy and Religion	9	11	240	59	22	5
Physical Sciences	12	34	2,016	366	59	11
Psychology	12	12	4,863	1,191	405	99
Public Affairs and Social Work	9	10	871	262	87	26
Recreation and Fitness Studies	8	9	810	318	90	35
Social Sciences	12	65	9,416	2,786	145	43
Visual and Performing Arts	12	60	5,788	1,067	96	18
Other	3	4	1,540	297	385	74
Undecided/Undeclared	12	12	20,624	NA	1,719	NA

Source: IBHE Degrees Conferred Survey and Program-Major Cost Study

Table 2

PROJECTED HIGH EMPLOYMENT OCCUPATIONS[1] IN ILLINOIS: 1988 TO 2000

Occupational Title	Average Annual Job Openings	Percent Growth
Top Managers and Executives	8,034	13.6 %
Registered Nurses	4,155	27.4
Managers and Administrators	4,120	14.2
Accountants and Auditors	2,942	19.9
Lawyers	2,928	36.4
Food Service and Lodging Managers	1,764	30.4
Secondary School Teachers	1,739	13.4
Licensed Practical Nurses	1,683	29.8
Financial Managers	1,501	15.5
Marketing, Advertising, Public Relations Managers	1,308	21.6
Electricians	1,223	15.4
Computer Systems Analysts, EDP	1,041	44.7
Computer Programmers	892	40.8
Engineering, Math, Natural Science Managers	888	25.0
Artists and Commercial Artists	825	13.0
Electrical and Electronic Engineers	775	32.4
Legal Secretaries	736	19.6
Education Administrators	729	13.3
Administrative Services Managers	726	26.9
Mechanical Engineers	694	15.2
Physicians and Surgeons	677	13.3
Sports Instructors and Coaches	675	19.8
Computer Operators	672	33.8
Electrical and Electronic Technicians	656	34.4
Management Analysts	630	58.0
Corrections Officers	582	34.2
Medical Secretaries	526	37.9
Graphic Designers	516	18.6
Pharmacists	503	23.4

[1]Occupations related to higher education projected to grow at or above the state average of 12.7 percent by the year 2000 and to average more than 500 job openings per year.

Source: Illinois Department of Employment Security

Table 3

PROJECTED FAST AND SLOW/NO GROWTH OCCUPATIONS IN ILLINOIS: 1988 TO 2000

Fast Growing Occupations[1]

Occupational Title	Average Annual Job Openings	Percent Growth
Paralegal Personnel	228	64.5 %
Actuaries	56	54.3
Operations and Systems Researchers	192	53.5
Chiropractors	34	53.3
Physical Therapists	219	49.0
Medical Records Technicians/Technologists	171	48.3
Occupational Therapists	87	47.8
Data Processing Equipment Repairers	261	45.4
Medical Assistants	284	39.3
Surgical Technicians	90	39.2
Interior Designers	106	38.2
Landscape Architects	58	36.7
Radiologic Technicians	129	36.7
Occupational Therapy Assistants	47	36.0
Opticians	337	35.9
Physical and Corrective Therapy Assistants	179	35.4
Optometrists	110	34.2
Aircraft Pilots and Flight Engineers	225	33.3
Recreational Therapists	63	32.4
Architects	323	31.9
Dentists	427	31.3
Medical and Psychiatric Social Workers	358	30.4
Surveying and Mapping Technicians	63	29.4
Dietetic Technicians	108	28.3
Economists	123	28.2
Dental Assistants	283	27.8
Physicists and Astronomers	54	26.9
Mathematicians	34	26.7
Medicine and Health Service Managers	330	26.6
Law Clerks	157	26.4
Electromedical and Biomedical Equipment Repairers	21	26.3
Dental Hygienists	115	26.2
Geologists, Geographers, and Oceanographers	52	26.1
Respiratory Therapists	75	25.5

[1]Occupations related to higher education projected to grow at least twice as fast as the state average of 12.7 percent by the year 2000 but to average fewer than 500 job openings per year.

Slow Growing and Declining Occupations[2]

Occupational Title	Average Annual Job Openings	Percent Growth
Agriculture and Food Scientists	20	6.1 %
Podiatrists	117	6.1
Power Reactor Operators	5	5.7
Reporters and Correspondents	172	5.0
Dental Laboratory Technicians	91	5.0
Librarians	434	4.8
Library Assistants	190	3.8
Agricultural Engineers	8	2.4
Chemical Technicians and Technologists	88	1.8
Aircraft Engine Specialists	4	1.1
Medical and Clinical Laboratory Technicians	81	1.0
Mining Engineers	3	0.7
Aeronautical and Astronomical Engineers	4	0.0
Public Administrators	164	-0.2
Mining and Related Managers	13	-1.6
Industrial Engineering Technicians	20	-3.0
Statistical Clerks	175	-3.6
Foresters and Conservation Scientists	11	-4.2
Business Data Entry Keyers	286	-5.9
Communication Equipment Mechanics, Installers, and Repairers	88	-18.9
Broadcast Technicians	-1	-27.7

[2]Occupations related to higher education projected to grow at less than half the state average of 12.7 percent by the year 2000 and to average fewer than 500 job openings per year.

Source: Illinois Department of Employment Security

education-related occupations that are expected to grow more slowly than the statewide average or actually decline.

Institutions should examine trends in enrollment and degree production in programs related to occupations in the above size and growth categories to determine if capacity should be adjusted to achieve balance between the supply of graduates and employment demand. Institutions should enhance efforts to conduct follow-up studies of alumni to determine the actual occupations of graduates, especially those who graduate from programs not related to specific occupations, such as the traditional liberal arts and sciences.

Institutions should consider eliminating or reducing programs in fields of study in which projected statewide job openings are low or are projected to slow or decline, particularly if other factors exist such as high program costs, low program quality, or low occupational placement.

Centrality in relation to instructional mission. Colleges and universities offer instruction in many fields. Fields that have few majors and that do not provide support to other, high priority programs may not be central to the instructional mission of the institution. Enrollments by majors and non-majors and the number of majors from different programs taking coursework in a field are indicators of the centrality of a program to the institution's instructional mission.

Table 4 presents the FTE enrollment of undergraduate students in all the instructional fields offered by public universities in fiscal year 1990. In addition, the proportion of enrollments generated by majors and non-majors is presented. Table 4 documents the wide disparity in student demand and support to other programs among instructional fields. For example, the business fields have high student demand both among majors and non-majors. By contrast, nursing and architecture provide instruction to few other majors, while most of the enrollment in English and in foreign languages is by non-majors, indicating their central role in general education. Again, Table 4 illustrates the kinds of analysis individual institutions should conduct for each level of instruction offered. Similar analyses should be conducted by community colleges using program and course enrollment information.

Institutions should consider eliminating fields that enroll a relatively small proportion of institutional and statewide enrollments and that enroll a small proportion of non-majors, particularly if there is also low occupational demand, low program quality, or high program costs.

Breadth of the instructional unit. The number of courses developed and the number of specializations offered within a program-major are measures of the breadth of an instructional unit. The number of courses and specializations should be supported by adequate student demand, adequate numbers and expertise of faculty members, and adequate academic support resources. Campus catalogs provide lists of courses and specializations that can give some indication of the breadth of offerings in each program or department. For example, in an analysis of one institution's catalog, the graduate programs in one department, which enrolled fewer than 30 students, offered instruction in 15 subfields with over 70 courses. Institutions should consider whether the number of specializations and the courses listed in the catalog have been offered in the past five years and whether the number and qualifications of faculty members needed to support the program and number of specializations published in the catalog are adequate. **Institutions should reduce the number of courses and specializations offered when necessary to achieve a cost-effective level of enrollment per course.**

Quality of the instructional unit. Public universities and community colleges should assure the high quality of each academic program. The program review process provides a broad examination of the factors that contribute to the quality of a program, including program objectives, faculty qualifications and productivity, curriculum, academic support resources, and student achievement and success. During the last five years, public universities reviewed about 1,000 individual programs. As a result of program review during this period, over 50 programs were eliminated, and over 30 were

Table 4

FULL-TIME-EQUIVALENT UNDERGRADUATE ENROLLMENT AND SERVICE LOADS OF ILLINOIS PUBLIC UNIVERSITIES IN FISCAL YEAR 1990 BY INSTRUCTIONAL AREA

Instructional Areas	FY1990 FTE Enrollment	Percent of FTE Students Majoring In This Area	Percent of FTE Students Majoring In Another Area
Accounting	3,482	40.8 %	59.2 %
Agriculture and Environmental Science	1,284	38.2	61.8
Architecture and Urban Planning	770	91.8	8.2
Area and Ethnic Studies	533	2.6	97.4
Business	11,136	31.2	68.8
Communications	3,814	31.3	68.7
Computer Science	2,889	28.2	71.8
Criminal Justice	1,806	65.7	34.3
Education	4,305	16.9	83.1
Teacher Education (by level)	2,309	67.5	32.5
Teacher Education (by subject)	6,038	25.4	74.6
Engineering	4,599	56.4	43.6
Engineering Technology	1,459	67.8	32.2
English, Literature, and Speech	13,521	13.8	86.2
Foreign Languages and Literature	4,514	7.8	92.2
Health Professions and Services	1,856	58.8	41.2
Home Economics	2,073	45.7	54.3
Legal Studies	284	25.4	74.6
Life Sciences	5,378	18.1	81.9
Mathematics	9,989	5.5	94.5
Multi/Interdisciplinary Studies	1,323	17.4	82.6
Nursing	865	95.7	4.3
Philosophy and Religion	2,863	3.1	96.9
Physical Sciences	7,983	7.8	92.2
Psychology	6,534	26.8	73.2
Public Affairs and Social Work	699	64.0	36.0
Recreation and Fitness Studies	688	46.6	53.4
Social Sciences	20,077	18.0	82.0
Visual and Performing Arts	9,026	30.2	69.8
Other	1,187	59.9	40.1

Source: Public Universities' Induced Load Matrices

restructured. Also during this period, the Board staff identified concerns related to approximately 70 programs. The most commonly identified concerns related to the clarity of programmatic objectives and the breadth of the curricular offerings. Low or declining enrollment, low completion rates, and high costs were also frequently cited concerns. In most cases, the staff requested that the institution develop a plan to strengthen the program and provide a progress report on these efforts.

During the same period, approximately 7,000 community college programs were reviewed, and over 250 programs were discontinued as a result of these reviews. The Board staff identified concerns related to approximately 100 of the programs reviewed. Common areas of concern included occupational demand for program graduates, enrollment levels, completion rates, and unit costs.

The primary focus of the review process at both the institutional and state levels has been the improvement of individual academic programs and units of research and public service. As colleges and universities refine programmatic priorities and make productivity improvements, programs of highest quality should be maintained and possibly expanded. Productivity improvements will, however, require reduction or elimination of units of lesser quality. **Institutions should consider elimination of instructional units that have been found to have quality deficiencies based upon their most recent program reviews.**

Success of graduates. Trends in the employment, further education, and satisfaction of graduates are important measures of the effectiveness of the education provided by a college or university. During the past year, the Board of Higher Education staff worked with representatives from the public universities to develop a Baccalaureate Graduates' Follow-Up System. Beginning in spring 1992, the public universities will incorporate a series of common questions on employment, further education, and satisfaction into their existing surveys of baccalaureate graduates and will report the responses to these common questions to the Board of Higher Education as part of their undergraduate education and degree program reviews, beginning with the Resource Allocation and Management Program (RAMP) submitted in July 1993. Surveys will be conducted on a three-year cycle. In the first year, graduates from the previous year will be surveyed. Then, five-year-out graduates will be surveyed in the second year, and ten-year-out graduates will be surveyed in the third year in order to determine the longer term impact of the undergraduate experience on employment, further education, and satisfaction.

The community colleges routinely conduct follow-up surveys of occupational program completers. Table 5 provides a summary of fiscal year 1990 survey responses to questions about the occupational status of completers from selected occupational programs. On average, about 54 percent of those responding to the survey indicated that they were employed in a field related to their program. Another 30 percent indicated that they were employed but in a field not related to their program. Less than one percent were in military service, and about 16 percent indicated that they were unemployed at the time of the survey. Some of those indicating that they were unemployed were enrolled in further education.

Institutions should consider eliminating programs that exhibit low job placement rates, lack of student and alumni satisfaction and support, and low graduate admissions or pass rates on licensure exams.

Program costs. Excessively high or low costs associated with a degree program are another indicator of productivity problems. Institutions should evaluate all degree programs to identify programs with very low or very high costs and to identify the factors determining cost levels (e.g., very low student demand, very low student-faculty ratios, or too few full-time senior faculty members teaching in the program). One standard for comparison is the statewide average program cost.

Table 5

OCCUPATIONAL STATUS OF COMMUNITY COLLEGE COMPLETERS FROM SELECTED OCCUPATIONAL PROGRAMS: FISCAL YEAR 1990

Program	Respondents	Percent Who Were			
		Employed In Related Field	Employed In Unrelated Field	In The Military	Unemployed
Total	1,390	53.5 %	30.4 %	0.6 %	15.5 %
Business Computer/Console Operation	48	54.2	27.1	4.2	14.6
Business Data Entry Equipment Operation	15	53.3	20.0	0.0	26.7
Business Data Programming	348	47.7	29.0	0.6	22.7
Microcomputer Applications	26	57.7	15.4	0.0	26.9
Radio/Television (Broadcasting)	13	46.2	15.4	0.0	38.5
Educational Media Technology	5	60.0	40.0	0.0	0.0
Radio/Television Production	5	100.0	0.0	0.0	0.0
Computer Technology	7	42.9	28.6	0.0	28.6
Electronic Technology	178	56.2	21.3	0.6	21.9
Laser Electro-Optic Technology	5	40.0	60.0	0.0	0.0
Telecommunication Electronics Technology	5	60.0	20.0	0.0	20.0
Computer Servicing Technology	12	83.3	8.3	0.0	8.3
Electromechanical Technology	4	100.0	0.0	0.0	0.0
Instrumentation Technology	12	75.0	16.7	0.0	8.3
Robotics	10	50.0	20.0	10.0	20.0
Automated Manufacturing Technology	14	85.7	14.3	0.0	0.0
Medical Assisting	13	92.3	0.0	0.0	7.7
Medical Records Technology	43	86.0	9.3	2.3	2.3
Pharmacy Assisting	12	91.7	0.0	0.0	8.3
Physician Assisting	2	0.0	100.0	0.0	0.0
Veterinarian Assisting	22	90.9	4.5	0.0	4.5
Nursing Home/Convalescent Care	5	60.0	40.0	0.0	0.0
Fashion Design	16	43.8	18.8	0.0	37.5
Legal Assisting	39	74.4	15.4	0.0	10.3
Criminal Justice	195	49.2	50.8	0.0	0.0
Corrections	2	0.0	50.0	0.0	50.0
Criminal Justice Technology	233	39.5	41.2	0.4	18.9
Private Security Services	7	57.1	28.6	0.0	14.3
Electrician	4	75.0	25.0	0.0	0.0
Electrical Apprentice	5	80.0	20.0	0.0	0.0
Communications Electronics	14	50.0	42.9	0.0	7.1
Computer Electronics Maintenance and Repair	31	54.8	35.5	0.0	9.7
Industrial Electronics	40	62.5	30.0	0.0	7.5

Source: ICCB Occupational Follow-Up Study: Fiscal Year 1990

Table 6

UNDERGRADUATE PROGRAM-MAJOR ENROLLMENTS AND COSTS[1] AT ILLINOIS PUBLIC UNIVERSITIES BY FIELD FISCAL YEARS 1988, 1989, AND 1990

Program Areas	Number of Campuses Offering Programs	Number of Programs	Average Annual FTE Majors	Average Annual Department and College Expenditures	Average Annual Expenditures Per FTE Major
All Programs	12	696	133,432	$281,475,694	$2,110
Accounting	10	10	4,311	9,858,953	2,287
Agriculture/Environmental Science	5	23	2,093	6,955,234	3,324
Architecture and Urban Planning	2	4	1,242	4,097,136	3,298
Area Studies	5	10	80	215,674	2,682
Business	12	51	19,551	38,106,563	1,949
Communications	10	18	4,944	11,107,778	2,247
Computer Science	10	10	3,813	8,064,623	2,115
Criminal Justice and Fire Science	8	9	2,866	5,791,194	2,020
Education	9	12	2,605	6,228,169	2,391
Teacher Preparation (by level)	11	22	6,792	17,002,337	2,503
Teacher Preparation (by subject)	10	67	4,341	11,957,190	2,755
Engineering	5	40	9,222	34,647,088	3,757
Engineering Technologies	7	11	2,262	6,397,246	2,829
English, Literature, and Speech	12	23	5,424	11,975,654	2,208
Foreign Languages	10	42	1,005	2,338,729	2,327
Health Professions and Services	11	35	2,386	7,389,310	3,097
Home Economics	7	17	2,767	6,349,919	2,295
Individualized Study	12	19	1,769	4,564,984	2,580
Legal Studies	2	2	186	429,165	2,310
Life Sciences	12	28	4,938	14,559,568	2,949
Mathematics	11	16	2,020	4,959,118	2,455
Multi/Interdisciplinary Studies	4	4	1,265	2,161,595	1,709
Nursing	6	6	1,382	7,589,500	5,490
Philosophy and Religion	9	11	240	561,703	2,341
Physical Sciences	12	34	2,016	6,107,670	3,029
Psychology	12	12	4,863	10,414,049	2,142
Public Affairs and Social Work	9	10	871	2,294,097	2,633
Recreation and Fitness Studies	8	9	810	2,082,503	2,572
Social Sciences	12	65	9,416	20,702,538	2,199
Visual and Performing Arts	12	60	5,788	16,566,407	2,862
Undecided/Undeclared	12	12	20,624	41,111,755	1,993
Other	3	4	1,540	4,546,636	2,952

[1] College and Department Expenditures from the Public Universities Discipline Cost Study adjusted to FY1990 dollars using the Higher Education Price Index.

Source: FY1990 Program-Major Cost Study

Table 6 presents the average annual FTE student-majors enrolled at public universities during fiscal years 1988, 1989, and 1990 and the departmental and college expenditures associated with that enrollment. Departmental and college expenditures for fiscal year 1988 and 1989 are adjusted to fiscal year 1990 dollars using the Higher Education Price Index. On average, public universities annually expended $2,463 per FTE program-major during this period. Nursing had the highest costs at $5,490 per FTE major, while Multi/Interdisciplinary Studies had the lowest at $1,709. In general, occupationally related programs tend to have higher unit costs than do traditional liberal arts and sciences programs.

Institutions should consider eliminating programs whose costs significantly deviate from the statewide average expenditures per FTE in the discipline, particularly if other conditions such as low student or occupational demand or low program quality exist.

Productivity of Public Service and Research Units

As with instructional units, productivity improvement decisions about public service and research units should be based on findings from multiple indicators that focus on the general subjects of capacity, quality, and cost. The following guidelines should be considered by institutions in making productivity improvements in research and public service units.

External support. Some research and public service functions performed by colleges and universities are closely linked to external interests either of federal, state, or local units of government or of business. One measure of the value of these functions is the extent to which state appropriated funds are matched by external funds. Table 7 displays the fiscal year 1990 expenditures by public universities for research and public service functions from both state appropriated and non-appropriated sources. On average, for each dollar in state support, public universities received $1.98 in external support for these activities in fiscal year 1990.

Table 7

RELATIONSHIP BETWEEN STATE AND EXTERNAL SUPPORT FOR RESEARCH AND PUBLIC SERVICE AT ILLINOIS PUBLIC UNIVERSITIES: FISCAL YEAR 1990

	Non-appropriated Expenditures ($000)	Appropriated Expenditures ($000)	Non-appropriated Dollar Per Appropriated Dollar
Total	$380,719.1	$192,580.9	$1.98
Departmental Research	300.1	67,114.6	0.00
Institutes and Centers	103,292.4	29,489.8	3.50
Individual or Project Research	121,550.5	22,727.9	5.35
Laboratory Schools	3,662.9	0.0	0.00
Support for Organized Research	10,137.8	8,881.9	1.14
Direct Patient Care	24,387.0	13,122.1	1.86
Community Education	19,845.2	6,737.1	2.95
Community Services	55,102.9	16,978.5	3.25
Public Broadcasting Services	6,614.8	3,526.9	1.88
Cooperative Extension Services	22,586.8	18,672.7	1.21
Support for Public Service	13,238.9	5,329.4	2.48

Source: Public University RAMP

Institutions should examine their research and public service institutes, centers, and functions and consider eliminating those that attract little support, particularly when other factors such as the quality of research and service provided and centrality to the institution's mission suggest low productivity.

Capacity in relation to need/demand. Institutions should also evaluate the capacity of individual units to carry out research and public service (i.e., the availability of necessary faculty expertise, equipment, and facilities) in relation to the demand for the findings, products, and services of research and public service centers and institutes. In addition to analyzing the ratio of external support to internal support, institutions should examine trends in expenditures and the results of the most recent program reviews. **Institutions should consider eliminating centers and institutes or consolidating activities when there is an imbalance in their capacities to carry out research and public service in relation to demand.**

Quality of research and service. There are currently 127 formally organized research and public service units at public universities. Public service units include, for example, radio and television stations, centers for economic development, and institutes providing services to teachers and schools. Units have also been established to support basic and applied research in medical sciences, technology, and social issues. All colleges and universities should assure the quality of the services and research efforts of these units. The program review process includes research and public service centers and institutes and provides a broad examination of the several factors that contribute to the quality of these units, including their objectives, faculty qualifications, and support resources. During the last five years, public universities reviewed about 50 individual research and public service units. As a result of program review during this period, ten units were eliminated. Also during this period, the Board staff identified concerns related to several of these units. The most common concerns related to the focus of the unit's activities, the extent to which defined objectives were being achieved, and redundancy of activities across units.

As with instructional units, the primary focus of the review process at both the institutional and statewide levels has been the improvement of units of research and public service. As colleges and universities refine priorities and make productivity improvements, reduction, consolidation, or elimination of units of lesser quality will be necessary. **Institutions should eliminate low quality research and public service units based upon the most recent program reviews, including an assessment of faculty and staff contributions to the development and application of knowledge and delivery of services.**

Centrality in relation to instructional mission. Institutions should evaluate the importance of each research or public service center or institute in contributing to the instructional mission of the institution. **Based on the findings of most recent program reviews, institutions should consider eliminating research and public service units that are peripheral to the institution's mission and whose contributions to instruction and service to students do not serve institutional, regional, or statewide priorities.**

Academic Productivity of the Institution

It is not enough to look only at the productivity of individual instruction, research, and public service units. To improve productivity, institutions should also examine these functions from a campus-wide perspective, concentrating on overall institutional priorities. The following guidelines view academic productivity from this institution-wide perspective. Institution-wide productivity should be evaluated on multiple criteria, and productivity improvement decisions should be based on these findings.

Scope of offerings. Institutions should examine the overall breadth of instructional offerings among fields and by level in relation to institutional size, mission, and available resources. Table 8 displays the matrix of undergraduate fields of study along two dimensions: the demand for programs by students seeking to major in the field and the centrality of the field to other instructional areas. The relative amount of coursework taken by students who are majoring in other disciplines is a measure of the centrality of a field of study. This table illustrates the importance of certain fields, such as the physical sciences and visual and performing arts, to the general education curriculum and the curricula of other programs, although each has relatively few majors per program.

Table 8 also illustrates the types of questions that should be examined by campuses in considering the scope of programmatic offerings. Programs with low or moderate demand and low or moderate centrality should be examined with consideration to institutional mission, program costs, existence of related programs, and occupational trends. Statewide averages and the number of similar programs offered by other institutions are guidelines that may be used. **Institutions should consider focusing the scope of their offerings to achieve appropriate student-faculty ratios, program-major cost levels, and enrollment and degree production levels across fields of study and by levels of instruction.**

Table 8 also illustrates issues to be considered at the state level in reviewing the overall distribution of programs among institutions. Consideration should be given to reducing the number of low demand programs when offered by many institutions, particularly if these programs do not provide support to other fields of study or if these programs show above average costs. Continuation of some programs may be justified on the basis of student access, geographic distribution of programs, or anticipated changes in occupational demand.

Staffing Patterns. Institutions should monitor the distribution and assignment of their faculty and staff. Table 9 shows proportions of public university and community faculty and staff across a number of dimensions: staff classifications, full-time versus part-time assignments, proportion of faculty that are tenured and non-tenured, and faculty distributions by rank. An imbalance in staffing patterns in relationship to institutional functions and goals can adversely affect productivity. Colleges and universities need to view their human resources as an asset that can be shaped and realigned to accrue significant long-term payoffs. **Staffing patterns should be modified in ways that improve productivity and avoid adverse effects on the quality and effectiveness of institutional functions.**

Faculty workloads. Excessively high or low faculty instructional workloads can jeopardize academic productivity. Institutions should evaluate all instructional areas to identify where faculty workloads can be adjusted, especially in relation to changing student demand. Table 10 presents shifts in FTE undergraduate enrollment among major discipline areas at public universities between fiscal years 1983 and 1990. Fiscal year 1983 is the first year that data were submitted using the current discipline area groupings. Shifts in faculty instructional staff-years and in student-faculty ratios are also presented.

Table 10 shows that, on average, public universities had a student-faculty ratio of 24.8 FTE students to one faculty staff-year in fiscal year 1990, down about two percent from fiscal year 1983. Considerable diversity exists among broad discipline groups, however. In general, professional disciplines had lower student-faculty ratios, while traditional liberal arts and sciences disciplines had higher ratios. In addition, areas experiencing declining student demand also showed evidence of reduced faculty effort. One notable exception is engineering, in which student demand declined by eight percent since fiscal year 1983 but faculty staff-years increased by 18 percent. The resulting student-faculty ratio of 17.2 to one is a drop of over 20 percent since fiscal year 1983. **Institutions should assure that any declining trends in instructional workloads are evaluated and should consider modifying workload policies when faculty workloads are significantly less than institutional, statewide, or national averages.**

Table 8

PROGRAM DEMAND AND CENTRALITY OF UNDERGRADUATE PROGRAMS

	High Program Demand (Over 300 Majors per Program)			Moderate Program Demand (100 to 300 Majors per Program)			Low Program Demand (Less than 100 Majors per Program)		
	Field	Campuses Offering Program	Cost[1]	Field	Campuses Offering Programs	Cost[1]	Field	Campuses Offering Programs	Cost[1]
High Centrality (Over 75% of Credit Hours Taken by Non-Majors)	Multi-Interdisciplinary Studies	4	Low	Life Sciences	12	High	Physical Sciences	12	High
				Mathematics	11	Mod	Visual and Performing Arts	12	Mod
				English, Literature, and Speech	12	Low	Foreign Languages and Literature	10	Low
				Social Sciences	12	Low	Philosophy and Religion	9	Low
							Area and Ethnic Studies	5	Low
Moderate Centrality (50% to 75% of Credit Hours Taken by Non-Majors)	Computer Science	10	Mod	Education	12	Mod	Agriculture and Environmental Science	5	High
	Business	12	Low	Communications	10	Low	Recreation and Fitness Studies	5	Mod
	Psychology	12	Low	Home Economics	7	Low	Legal Studies	2	Low
	Accounting	10	Low						
Low Centrality (Less than 50% of Credit Hours Taken by Non-Majors)	Architecture and Urban Planning	2	High	Nursing	6	High	Health Professions and Services	11	High
	Criminal Justice and Fire Science	8	Low	Engineering	5	High	Public Affairs and Social Work	9	Mod
				Engineering Technology	7	Mod			

[1]Costs per FTE Major: High is above 10 percent of state average, moderate is ± 10 percent of the state average, and low is less than 10 percent of the state average.

Table 9

FALL 1991 HEADCOUNT EMPLOYMENT AT PUBLIC UNIVERSITIES AND COMMUNITY COLLEGES BY POSITION, STATUS, TENURE, AND RANK

	Public Universities		Community Colleges		Total	
	Headcount	Percent of Total	Headcount	Percent of Total	Headcount	Percent of Total
Total Employment	54,113	100.0 %	32,385	100.0 %	86,498	100.0 %
Executive/Administrative/ Managerial	2,966	5.5	1,360	4.2	4,326	5.0
Faculty	12,894	23.8	18,270	56.4	31,164	36.0
Other Professional	8,702	16.1	1,975	6.1	10,677	12.3
Secretarial/Clerical	8,429	15.6	6,339	19.6	14,768	17.1
Other Support	9,750	18.0	4,176	12.9	13,926	16.1
Graduate Assistants	11,372	21.0	265	0.8	11,637	13.5
Faculty and Graduate Assistants	24,266	100.0	18,270	100.0	42,536	100.0
Full-Time	10,070	41.5	4,985	27.3	15,055	35.4
Part-Time	14,196	58.5	13,285	72.7	27,481	64.6
Faculty	10,070	100.0	4,985	100.0	15,055	100.0
Tenured	5,912	58.7	4,114	82.5	10,026	66.6
Untenured	2,180	21.6	774	15.5	2,954	19.6
Other	1,978	19.6	97	1.9	2,075	13.8
Faculty	10,070	100.0	4,985	100.0	15,055	100.0
Professor	3,271	32.5	671	13.5	3,942	26.2
Associate Professor	2,491	24.7	791	15.9	3,282	21.8
Assistant Professor	2,720	27.0	587	11.8	3,307	22.0
Instructors	460	4.6	2,238	44.9	2,698	17.9
Lecturers	208	2.1	33	0.7	241	1.6
Other Faculty	920	9.1	665	13.3	1,585	10.5

Source: Fall 1991 Equal Employment Opportunity Commission EEO6 Survey

Table 10

FULL-TIME EQUIVALENT STUDENT ENROLLMENT AND DIRECT AND INDIRECT INSTRUCTIONAL FACULTY STAFF-YEARS AT PUBLIC UNIVERSITIES: FY1983 AND FY1990
(sorted by students per faculty staff-year)

Discipline Area	FY1990 FTE Students	Percent Change Since FY1983	FY1990 Instructional[1] Faculty Staff-Years	Percent Change Since FY1983	FY1990 FTE Students Per Faculty Staff-Year	Percent Change Since FY1983
Nursing	865	22.9 %	89.4	33.6 %	9.7	-7.6 %
Other	1,012	-8.2	70.5	-4.1	14.4	-4.0
Engineering	4,603	-8.3	267.4	17.9	17.2	-22.2
Architecture and Environmental Design	954	-18.0	53.4	-13.2	17.9	-5.3
Teacher Preparation (by level)	2,173	11.9	112.1	3.9	19.4	7.8
Foreign Languages	4,513	6.9	230.6	13.9	19.6	-5.8
Letters	10,262	10.6	501.0	14.4	20.5	-3.3
Fine and Performing Arts	8,841	-3.9	426.7	-11.0	20.7	7.8
School Psychology, Special Education, and Counseling	1,580	-7.0	76.3	-14.7	20.7	8.9
Agriculture	1,263	-29.5	60.2	-34.0	21.0	6.6
Health Sciences and Allied Health	1,846	18.3	87.6	3.5	21.1	14.7
Curriculum and Instruction and Ed. Administration	1,950	18.2	91.4	-8.9	21.3	29.1
Engineering Technologies	1,455	-26.6	68.5	-21.2	21.3	-6.6
Physical Sciences	7,981	-13.6	369.2	-5.4	21.6	-8.9
Life Sciences	5,379	-8.0	246.4	-3.8	21.8	-4.4
Teacher Preparation (by subject)	6,078	-2.6	277.7	-11.4	21.9	10.1
All Other Education	969	3.1	42.6	-18.6	22.7	26.8
Area and Ethnic Studies	533	21.9	22.7	17.5	23.5	3.5
Computer and Information Sciences	2,889	-22.6	121.1	4.6	23.9	-26.0
Multi/Interdisciplinary	1,442	57.5	58.4	71.4	24.7	-8.2
Home Economics	2,078	-9.2	81.5	-18.8	25.5	11.8
Rhetoric, Speech, Debate, and Forensics	3,249	24.1	123.5	18.0	26.3	5.2
Parks and Recreation	688	22.9	25.6	-6.2	26.9	31.2
Communication and Communication Technology	3,814	8.9	134.1	8.1	28.5	1.1
Public Affairs/Protective Sciences	2,505	7.0	87.7	-4.5	28.6	12.2
Mathematics	9,989	-13.5	346.0	2.8	28.9	-15.7
Business and Management	9,126	-12.0	293.2	2.3	31.1	-14.1
Philosophy, Religion, and Theology	2,860	13.0	89.0	4.9	32.1	7.7
Accounting, Finance, and Banking	5,443	-9.0	162.9	-4.4	33.4	-4.8
Social Sciences	20,073	7.1	569.8	-2.7	35.2	10.0
Psychology	6,535	7.4	183.0	6.0	35.7	1.4
Legal Studies	284	59.5	7.3	25.1	39.0	27.0
All Disciplines	133,231	-1.6 %	5,376.5	-0.1 %	24.8	-1.6 %

[1] Includes direct and indirect instructional effort.

Source: Public Universities Faculty Credit-Hour Studies

Time patterns. Institutions should analyze the intensity and flexibility of academic calendars and schedules in relation to the effective use of student and faculty time, facilities, and institutional resources. **Institutions should consider shortening vacation schedules and semester breaks and modifying academic calendars so that students can pursue coursework on a year-round basis and institutional facilities and resources are effectively utilized.**

Faculty scholarship and renewal. Providing high quality instruction, research, and public service requires that faculty members keep abreast of knowledge in their field, actively engage in scholarship, and be provided with opportunities to renew intellectual curiosity and commitment, as well as teaching and research skills. **Institutions should reexamine their policies related to faculty development and sabbaticals to ensure that they are effectively supporting scholarship and faculty renewal goals and that expenditures for faculty scholarship and renewal are in balance with direct instructional, research, and public service expenditures.**

Academic support and technologies. Opportunities for productivity improvements may be identified by analyzing the effectiveness of academic support capabilities such as laboratories, library holdings, and the use of technology such as computer and telecommunications networks. For example, the use of telecommunication networks holds the promise of increasing productivity by allowing faculty members to simultaneously teach on- and off-campus students. A collateral benefit is realized by cutting travel costs associated with traditional means of providing off-campus instruction. **Institutions should examine trends in resource commitments to academic support functions and technologies and reverse trends that are not promoting increased academic productivity.**

Consolidation of programs. Colleges and universities have an opportunity to focus instructional offerings and thereby improve productivity by consolidating units with low levels of activity (i.e., low enrollments or low levels of research or public service expenditures) with other units on a campus or statewide basis. **Institutions should eliminate or consolidate formally organized academic units or off-campus sites that have low levels of direct expenditures in relation to overhead costs, that are less central to the mission of the institution, and whose services are provided effectively elsewhere in the state.**

Organizational structures and processes. Productivity can be improved and savings reallocated by streamlining academic processes and procedures and by establishing cooperative arrangements between academic units and with other institutions to share resources. **Institutions, systems, and the Board of Higher Education should refine and streamline academic review and approval processes. Colleges and universities should expand resource sharing across academic units and with other institutions at off-campus sites.**

Productivity of Administrative Functions

Administrative functions are designed to support and make more productive the primary functions of the institution: instruction, research, and public service. Productivity improvements in administrative and support functions are crucial to the overall productivity improvement of the institution and higher education statewide. The following guidelines are exemplary of those that should be used to improve productivity of administrative units and administrative functions that are carried out by multiple administrative and academic units.

Administrative and support functions at public universities and community colleges now consume more than half the annual state appropriations to these sectors. Institutions should evaluate administrative functions for their extent and effectiveness in supporting the primary missions of institutions: instruction, research, and public service. An indicator of low administrative productivity is a high ratio of administrative expenditures compared with expenditures for other functions. Table 11 displays fiscal year 1990 expenditures for administrative and support functions at public universities,

Table 11

PUBLIC UNIVERSITY EXPENDITURES FROM STATE APPROPRIATED FUNDS FOR ADMINISTRATION AND SUPPORT FUNCTIONS IN RELATION TO INSTRUCTIONAL, RESEARCH, AND PUBLIC SERVICE EXPENDITURES FISCAL YEAR 1990

	Expenditures ($000)	Expenditures Per Thousand Instructional, Research, And Public Service Dollars
Administration and Support Subtotal	$ 683,135.7	$ 1,031
Administration	293,047.4	442
Executive Administration	40,956.4	62
Academic Administration	60,675.3	92
Financial Services	22,581.8	34
Departmental Administration	88,828.2	134
General Services	57,988.7	87
Financial Aid Administration	8,445.3	13
Student Services Administration	7,230.0	11
Superintendance of O & M	6,341.7	10
Student Services	56,857.3	86
Admissions and Records	25,517.8	39
Social/Cultural Development	9,445.5	14
Health/Medical Services	2,334.6	4
Counseling/Career Services	8,874.7	13
Student Financial Assistance	3,761.5	6
Intercollegiate Athletics	6,923.2	10
Other Support	138,975.2	210
Academic Support	9,002.7	14
Library Services	62,349.9	94
Hospital/Patient Services	47,686.6	72
Public Relations	14,606.6	22
Public Service Support	5,329.4	8
O & M of Physical Plant	194,255.8	293
All Other Expenditures	663,127.8	1,001
Total Expenditures	$ 1,346,263.5	$ 2,031

Source: Public University RAMP

and Table 12 displays similar data for community colleges. In addition, the tables display these expenditures as a ratio of instructional, research, and public service expenditures.

In fiscal year 1990, public universities expended $683 million on administrative and support functions. This averaged $1,031 for every one thousand dollars expended for instruction, research, and public service. Community colleges expended about $430 million, which averaged $1,297 for every one thousand dollars in instruction and public service expenditures.

Centrality. **Institutions should consider eliminating or reducing administrative units and functions that are peripheral to their primary mission. Institutions also should reduce or eliminate state funds that support such units, particularly when state expenditures per student or per faculty staff-year significantly exceed the statewide average.**

Breadth of Functions. Growth in administrative functions can contribute to low productivity. Institutions should examine the breadth of activities carried out within and across administrative units. One indicator of potential low productivity in administrative functions is differential growth with respect to enrollment or instructional, research, and public service expenditures. **Institutions should consider reducing administrative units and functions that have grown excessively in recent years, particularly when state expenditures per student or per instructional, research, and public service dollar significantly exceed the statewide average.**

Redundancy of Functions. Institutions should analyze the extent to which services are unnecessarily duplicated across administrative and academic units. **Institutions, systems, and the Board of Higher Education should eliminate or consolidate functions that are redundantly provided by different administrative units.**

Efficiency of Operations. The productivity of administrative and support functions, perhaps more so than academic functions, can be improved by streamlining operations and by capitalizing upon new technologies. **Institutions should carry out comparative analyses of support costs across academic and administrative units and should incorporate efficiencies and technologies employed in relatively low overhead units to reduce costs in relatively high overhead units.**

Productivity of State-level Processes

Effectiveness of state-level processes and reporting requirements. Productivity improvements are possible by consolidating, reorienting, automating, or reducing the various processes and information reporting requirements at all levels of higher education. **The staff of the Board of Higher Education will work with the governing boards and campuses to analyze changes that need to be implemented in statewide higher education administrative functions (i.e., program review, program approval, budget development, and information systems) to improve productivity.**

Effectiveness of state-level regulatory requirements. Productivity improvements may also be achieved by reducing unnecessarily duplicative or inefficient regulatory procedures and requirements. **The staff of the Board of Higher Education will work with governing boards and campuses to identify productivity improvements that can be achieved through modification of state government policies and procedures.**

Next Steps

Most colleges and universities have already begun to address productivity improvement issues in some areas described in the above guidelines. Many colleges and universities have made substantial productivity improvements, as well. All colleges and universities should expand their productivity

Table 12

COMMUNITY COLLEGE EXPENDITURES FOR ADMINISTRATION AND SUPPORT FUNCTIONS IN RELATION TO INSTRUCTIONAL AND PUBLIC SERVICE EXPENDITURES FISCAL YEAR 1990

	Expenditures ($000)	Expenditures Per Thousand Instructional And Public Service Dollars
Administration and Support Subtotal	$ 430,138.9	$1,297
Administration	235,783.6	711
System Administration	1,428.7	4
General Administration	46,190.7	139
Academic Administration and Planning	61,638.9	186
Direct Department Administration	51,054.6	154
Administrative Data Processing	20,417.5	62
General Institutional Support	55,053.2	166
Student Services	61,090.7	184
Student Services	58,605.7	177
Auxiliary Services Subsidy	2,485.0	7
Other Support	27,556.8	83
Library/Learning Resource	27,556.8	83
O & M of Physical Plant	105,707.8	319
Building Rental	3,065.0	9
Building Repair	9,533.8	29
Operations and Maintenance	93,109.0	281
All Other Expenditures	338,231.1	1,020
Total Expenditures	$ 768,370.0	$2,317

Sources: ICCB Unit Cost Study and Comptroller Reports

improvement efforts to encompass the areas identified in this report, as well as to continue efforts that are currently underway.

Based upon discussions at the March meeting of the Board of Higher Education, staff will work with the staffs of the Illinois Community College Board, governing boards, and campuses to extend and refine the analytical work and guidelines presented in this report. The staff will also meet with systems and sectors to review productivity improvement efforts and plans and to share perspectives on where productivity improvements can be made.

In cooperation with others, the staff will analyze Board of Higher Education processes and reporting requirements and will recommend to the Committee of the Whole the changes that need to be made. A report and recommendations will be presented to the Committee in the coming months. The staff will also work with systems and campuses to identify modifications to state policies and procedures that would improve productivity in higher education and to develop plans and strategies for working with the appropriate areas of state government to effect these changes.

During the summer 1992, the staff will continue to work with systems and campuses to support their identification of short-term productivity improvements and to provide statewide perspectives on opportunities to improve productivity. More targeted and specific analytical work will be conducted where warranted.

Colleges and universities will be asked to describe their short-term productivity improvement decisions and longer term plans. Staff will analyze these decisions and plans and summarize them in a "Statewide Productivity Report" which will be presented to the Board in November 1992. As part of this report, the staff will also present recommendations to the Committee of the Whole for making productivity improvements from a statewide perspective. This report will serve as a basis for fiscal year 1994 budget development, as well as for developing a long-term plan for continuing productivity initiatives in Illinois higher education.

This report focuses on productivity improvements in five key areas: instruction, research and public service, overall academic functions, administrative functions, and state policies affecting higher education. It will be necessary in the long-term to enlarge the scope of productivity improvement efforts in Illinois higher education. Specifically, priorities in such areas as student financial aid and higher education grant programs will also need to be addressed during the coming months.