Principal benefits from well-planned space studies usually are: (1) improvements in the utilization of existing space; (2) elimination of unnecessary or "bad" space; (3) better planning and programming for new facilities; and (4) the development of data which help to justify and sell the need for construction of additional facilities.

Full benefits may be derived in most instances only by the establishment of a continuing system which includes provision for: (1) constantly updating an inventory of existing facilities and their patterns of utilization; (2) systematically scheduling the use of the facilities for maximum feasible utilization; and (3) evaluating the need for changes in existing space and construction of added space in the light of carefully-defined evaluations of program changes and projected enrollment increases. Various forms of such a system increasingly are employed in the vast majority of the larger, more complex institutions and would prove beneficial in many smaller institutions with dynamic and complex instructional programs.

The use of such an approach in planning for new institutions of higher education is widespread, and permits the construction of a lower ratio of instructional facilities by comparison with planned enrollments. The use of a very sophisticated computer program to "fly" the schedule ahead of time (before designing the buildings) is claimed to have resulted in dramatic savings in the planning for a new campus for the Community College District of St. Louis.

LEADERSHIP BY STATE AGENCIES

Much of the leadership for improved utilization, and for sound planning to provide only what is needed, when and where it is needed has been provided by State coordinating or governing boards for higher education. Such leadership has tended to have weight behind it in those States where the coordinating or governing board has been the agency by which institutional budgets are approved or screened. It has included the establishment of space "factors" or allowances for new construction, both on a general institutional basis related to enrollment projections, and with regard to allowances for amounts of space by type of facility and program area. In some instances, the State agencies have established utilization standards or targets for institutions. The experience of California in this regard provides an interesting insight into the difficulties experienced in reaching projected targets. A 1955 California study recommended certain levels for weekly room use and student station use. Experience led to approval of lower targets and subsequent recommendation in a 1960 study of still lower targets, as illustrated in the following table:10

UTILIZATION TARGETS IN CALIFORNIA

en e	Classrooms		Laboratories	
	Weekly room use (hours)	Student station use (percent)	Weekly room use (hours)	Student station use (percent)
1955 study recommended State colleges adopted 1960 Master plan recommended	36 30 30	67 75 60	24 25 20	80 85 80

Note: These shifts represent realistic adjustments based on experience in a State which has put strong emphasis on improving the utilitzation of academic facilities in its public institutions of higher education. The adjusted targets remain substantially higher than the general average reported for institutions throughout the Nation, as cited earlier in this paper.

In some instances, State coordinating boards also are beginning to provide leadership by conducting statewide studies and surveys of utilization and providing technical assistance in the conducting of facilities inventories for individual

In many instances the agencies designated to be State commissions for Title I of the Higher Education Facilities Act of 1963 also are the State coordinating

^{10 &}quot;A master Plan for Higher Education in California," published by the California State Department of Education, Sacramento, 1960.

11 An excellent recent example is A Space Utilization Study for Five State-Supported South Carolina Colleges and Universities directed by Harold Dahnke for the South Carolina Advisory Committee on Higher Education.