INITIAL PLANNING AND COST CONSIDERATIONS FOR A NEW STATE COLLEGE-- STATE OF WASHINGTON

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FOREWARD

The following represents the final report to the Sub-Committee on Start-Up Costs of the Temporary Advisory Council on Public Higher Education. The data included in the report were obtained from interviews and unpublished reports, as well as from those published sources listed in the bibliography.

The report highlights the essential guidelines for action in planning and developing a new State College. As requested, detailed consideration has been given to the 1967-69 Biennium in order to provide a basis for necessary legislative action.

An attempt has been made to present in broad outline the general pattern of development of a new college in terms of time considerations, staffing needs, and costs. Specific recommendations such as type of educational program, buildings needed, ratio of residential to non-residential students of the college, were not made because of the belief that these decisions must be the responsibility of the future President and his planning staff.

Grateful appreciation is extended to the planning staffs of the University of Washington and the three State Colleges for contributing so generously of their time and experience. Their expert advice was most helpful in the drafting of the proposals submitted in this report.

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INTRODUCTION

Most of the four-year colleges and universities operating today have developed their present educational and physical facilities over a relatively long period of time. They are meeting educational needs, enrollment pressures, and facility demands far different than anything conceived at their beginning. Today, throughout the nation, states are being required to plan for totally new colleges that must function in five years after opening as effectively as though they had existed for fifty or more years. The State of Washington is a prime example of this phenomenon. Since the youngest of the present public four-year colleges was chartered in 1890, existing institutions have evolved through a series of steps to their present status.

The State is now faced with the need for the authorization and planning of a public four-year college which will undoubtedly be the first of a number of similar colleges needed in the State during the next decade. With no accumulation of experience in planning new colleges, a planning procedure for carrying out the project must be developed. The planners of a new college are confronted with a need to plan in greater depth and detail than might be the case in an existing institution. Not only must planning substitute for tradition, it must cope with strong pressures to telescope the time available for planning to a bare minimum in order to open the doors to students as soon as possible.

This report suggests considerations which are important in the planning process of a new four-year college. The attempt is not to define in detail all concerns or considerations which will arise, but to

focus on those which are important during the initial period of consideration and authorization. This report stresses the importance of programming the planning procedures in order to insure proper phasing of efforts. The necessary progression from authorization, statement of objectives and functions, through planning of programs, implementation, design, construction and operation of the educational plant, to evaluation of outcomes against expectations--all these steps are dependent upon careful timing and integrated effort. This report gives specific consideration to actions, responsibilities, time schedules, staffing, and estimated expenditures for the 1967-69 biennium. General consideration is given to the planning phases beyond the biennium in order to suggest possible guidelines for longer range planning.

This report does not provide a total long-range plan nor does it extend estimated operating expenditures, actions, staffing, or specific time schedules beyond the initial biennium. It is the firm belief of the study group that the specific details of the planning process, including a programming schedule, can best be developed by the planning staff which should be appointed at the earliest possible date.

It is our hope that this report provides the reader with a feeling for the complexity and immensity of the undertaking, and gives some idea of the importance of planning to the successful development of a new college. It is also hoped that the imperative necessity for action at each step of the planning sequence is pointed out, since a delay at any step in the program will result in a delayed opening date.

The Need for the Study

"At the earliest possible time, a new four-year state college should be authorized. It should admit a freshman class by the academic year 1969-70 or as soon thereafter as is feasible," states a unanimous recommendation of the Temporary Advisory Council on Public Higher Education in their report submitted to Governor Daniel J. Evans on October 31, 1966.

This report is a follow-up on the above specific recommendation in an attempt to point up some of the questions and concerns relative to its implementation. This is not an exhaustive study nor is it intended to be definitive except where a specific request or requests for information were made by the Temporary Advisory Council. The intent is rather to highlight some of the considerations which will have to be met in carrying out the recommendation. These considerations are taken from the experience of others and from the literature and are reported as guidelines only, not as absolutes.

The objectives of the Study

The objective of this study is to establish a basis for planning, programming, and implementing the decision to establish a new public state college. This objective is carried out by establishing guidelines relative to: (1) A general planning sequence for implementing the development, (2) A planning staff and responsibilities for decision making, (3) A time schedule, (4) Cost considerations.

GENERAL CONSIDERATIONS FOR PLANNING THE NEW STATE COLLEGE

General Assumptions

1. That adequate time will be alloted to plan a college program consistent with the future needs of the State.
2. That adequate funding will be appropriated for the physical facilities necessary for the program.
3. That there will be a minimum time period of four to five years between the date of legal authorization of the college and the date of registration of the first class of students.
4. That the college will be in full operation within a period of from nine to ten years.
5. That the construction of plant facilities will be accomplished in a number of carefully planned phases.
6. That all specific planning and programming will be completed by a board of regents, a president, and a planning staff.
7. That an architect will be appointed as soon as possible.
8. That library and acquisitions will be started as soon as possible.
9. That decisions and appropriations will be made on a predetermined time schedule in order to avoid delays in programming.

Planning Considerations

It is our belief that the specific planning for the college should be conducted by the regular permanent staff of the college. This assumes that a president and staff will be appointed as early as possible and

that their initial responsibilities will be in the area of planning. They will have to develop the kind of program the institution should offer after studying the projected needs of the State and determining those needs which will not be met by existing institutions, taking into consideration their projected expansion.

The specific focus of the new college should emerge from these studies and the types and size of programs should then be determined. Creativity and ingenuity can be used in the methods and ways of providing for program needs once these are determined. It is essential that the new college fit into the existing as well as the projected system of higher education rather than being the result of someone's or some group's dream.

The focus of attention of the president and his staff initially center on the planning function as it relates to philosophy and objectives. However, this group will gradually become more involved in operations as they approach the opening date and enrollment of the first students. The process of planning flows from a definition of philosophy and objectives, to program, to specifications, to design, to construction, to operation and through evaluation.

Proposed Planning Sequence

The planning sequence must not concern itself solely with the necessary sequence of actions from legal establishment to completed operation. It is essential that the planning sequence be fitted into the biennial structure of the Legislature in order that necessary action can be taken and funds appropriated by the Legislature on a schedule that will insure the meeting of planning deadlines between sessions of the Legislature.

The planning sequence is basically a critical path which indicates the order of action as well as the necessity for completion of each action to release the next step in planning. If the sequence is not followed, the program cannot be completed as projected and may result in attempting to meet a continual series of crises outside the regular sequence of planning steps. It should be noted, however, that much planning can be conducted parallel to the critical path, if this related planning is not completely dependent on this time sequence.

Proposed Action Planning Sequence

Biennium	Action	Responsibility
1967-69	Legal establishment	Legislature
	Appropriation of funds for planning and site purchase	Legislature
	Appointment of Board of Trustees	Governor
	Appointment of President	Board of Trustees
	Appointment of Planning Staff	President
	Appointment of Architect	Board of Trustees
	Site study and site purchase	Professional Consultant & Board of Trustees
	Long range development plan	Architect
	Phase one plans for bid	Architect
1969-71	Appropriation of funds for planning and construction of phase one	Legislature
	Programming for staff and construction of phase one	President and Staff
	Architectural plan for phase one	Architect

Biennium	Action	Responsibility
1971-73	Appropriation of funds for operation and construction of phase two	Legislature
	Completion of phase one construction	Contractors
	September, 1971 - 1000 students enrolled. Construction of phase two started	Contractors
	September, 1972 - 2000 students enrolled. Completion of phase three planning	Contractors
1973-75	Appropriation of funds for operation and construction of phase three	Legislature
	Completion of phase two construction	Contractors
	September, 1973 - 3000 students enrolled. Construction of phase three started	Contractors
	September, 1974 - 4000 students enrolled	
1975-77	Appropriation of funds for operation	Legislature
	September, 1975 - 5000 students enrolled	
	September, 1976 - 6000 students enrolled	

Procedures for Planning

There are a number of procedures which are used in initiating and carrying forward planning for new colleges. A professional planning or consulting firm may be retained to prepare educational program and even campus specifications. The effectiveness of this procedure is related to the specificity of the requirements and

availability of basic information about needs and programs provided for them. This procedure is frequently used to save time when time is the most important consideration.

Another procedure may be used when a state has a central agency to assist in or to actually perform the planning function for new colleges. This is usually accomplished by some central authority such as a State Board of Trustees or Regents.

Another procedure is to hire a temporary planning staff for the college without concern that they may become on-going permanent operating staff members. These are usually specialists who are no longer needed once they have completed their assigned tasks.

The procedure recommended in this report is that of appointing a central core of administrators who will follow through from overall planning to program planning and continue in operating the college as well as evaluating the outcomes. Specialists or consultants may be retained to assist in specific areas or on specific problems, but the basic responsibility for planning would be assumed by the central administrative team. This team should include persons representing the major segments of the campus program and should be expanded as planning develops, to include the faculty and staff of the college.

Good planning is a continuous process rather than a series of separate planning experiences to be passed, football fashion, from one group of planning specialists to the next group for implementation.

Educators, architects, engineers, planners, and consultants should be involved throughout the entire process, with the degree of involvement and responsibility for progress changing as the planning develops.

Educators should assume the dominant role in the beginning as the institution and its requirements are determined and defined. The degree of involvement in the physical aspect of planning decreases as firm requirements emerge, and phases into a minor role as the architect begins to convert the language of the educational requirements into drawings and pictures. Educators set the pace and the progression of steps during the early planning and the architect follows. The architects and engineers will assume the leadership role for physical planning as they begin to create the campus around the educational requirements.

The architectural results are dependent for their unity and clarity on the understanding the architect has of the concepts and expectations which have shaped the educational program and its requirements. These understandings should be acquired by the architect through his involvement in the formulation of the philosophy, objectives and program of the college.

The educators transfer their focus from the overall educational program and specifications necessary for the physical planning to the specific program for the students who will be entering. While they will be continuously involved in planning, the focus will change as planning progresses.

One of the important advantages of this procedure for planning is that it provides the opportunity for continuous evaluation by the staff and allows an opportunity to measure the final outcomes against initial expectations and educational specifications.

Staffing for Planning

To carry out this concept of adequate planning, immediate staffing is essential, and leadership is an essential quality of the beginning staff. They must be able to organize, program, and contribute specialized knowledge about the facets of the program for which they are responsible. They will need to be able to interpret the implications of their specialty for the overall objectives and program of the college, for the physical facilities of the campus, for the organization of the college, for the instructional program and for the operational program of the college.

A major responsibility of the planning staff will be to define the objectives of the college in relation to the needs of the state and to the existing two-and four-year colleges and universities. Another responsibility will be to develop a program of planning in detail that will be followed to reach the opening date goal. In order to carry out these functions effectively, it is recommended that the planning staff for the first biennium consist of the following:

Board of Trustees. This is the official body to approve all planning and to keep official records of decisions made and official steps approved. The actions of the Board of Trustees are a key to effective planning; therefore, great care should be given to their selection and appointment. One of the most important decisions they will make toward the success of the college is their selection of a president.

Office of the President. The president plays the key role in the planning and operating of this new college. During planning, he must assume a strong leadership role in selection and development of the planning team. The president must assume the role of decision maker and must represent the educational planners with the board of trustees, architects, legislature, citizens, etc.

During the planning periods, the heads of each planning office should report directly to, and be responsible to him. An adequate staff to assist with the various responsibilities is essential for an effective and efficient planning program.

Office of Academic Program Planning. The person who heads this office should be the chief administrative officer for the academic program. His responsibilities will become more directly related to curriculum, instruction and staffing as the planning progresses. He should have adequate staff assistance to carry out his responsibilities.

Office of Student Services Planning. The person who heads this office should be the chief administrative officer for the out-of-class services provided for the college. These will include a continuum of services from the first contact with prospective students through their college program and on after graduation. The type and breadth of program is very important to the effective and efficient planning of physical facilities for the campus. Student services require many specialized facilities which must be developed consistent with the objectives of the program.

Office of Physical Plant Planning. This office should perform as the right arm of the president during planning and it should be headed by an expert in campus planning. The office should be able to provide the necessary knowledge of planning and the ability to develop procedures for carrying it out. This office should provide basic data, make projections and concern itself with long range developments.

Office of Library Planning. A good Instructional Materials Center permeates and reflects all other segments of the campus. The first day students are admitted, there should be an Instructional Materials Center ready to serve their needs. This facility requires as much advanced planning, selection of materials and development of operations as can be given. The chief administrative officer of the library should have a minimum of two professional assistants as well as clerical and secretarial assistance. The library collection should be developed as fast as possible within the limitations of the number of acquisitions which can be selected and processed. Lack of funds should not be allowed to hamper this work.

Architectural Services

An architectural firm should be appointed as soon as possible so they can be involved from the beginning. If their appointment is postponed, they may completely miss the education which comes from the discussions of philosophy and the objectives of the college which form the basis for decisions made throughout the planning process. The architectural planners may never know or understand

the expectations of the educational planners if only confronted with specifications. Early involvement of the architectural planners may result in untold benefits, while adding nothing to the cost of the project.

Time for Planning

Planners seldom feel there is sufficient lead time to ideally develop an educational program and to plan and construct the physical facilities. One factor which contributes to this dilemma is the inter-relatedness and interdependence of the educational and physical facilities program. Another factor is that more time does not provide a solution unless it is used effectively and is properly programmed into a logical time sequence. The total time alloted from authorization of the college to the enrollment of students is realistic only if it provides the necessary amounts of time for the component parts of the total plan.

The State of Washington has no overall experience in developing a new four-year college, but the existing institutions have had recent experiences in planning and developing segments of a total plan which have proven very valuable.

The California Council for Higher Education recommends ten years as the optimum and seven years as possible between the acquisition of site and the admission of first students. A study showing the time elapsed between authorization and opening date of first permanent buildings of state colleges in California indicates the following:

Table 1

California Experience
New College Construction

College	Date of Authorization	Date of Opening*	1st Permanent Building
C.S.C. at Hayward	1957	1959	1963
C.S.C. at Fullerton	1957	1959	1963
Stanislaus State College	1957	1960	1965
Sonoma State College	1957	1961	1966
C.S.C. at Palos Verde	1960	1965	1966
C.S.C. at San Bernardino	1960	1965	1965

*Date when Freshmen were admitted for the first time.

Very little information exists as to the actual time from the beginning of planning until a new campus is occupied and operating. There are many variables such as the different procedures for phasing the program, the use of temporary facilities, the immediate need, growth, etc.

Perhaps one of the best ways to approach the total time estimate is to add the time necessary for the various segments of the planning process. Several sources indicate that it takes a minimum of four years to program, plan and construct initial facilities if an administrative organization is in existence and decisions are made as required. This allows approximately fifteen months for programming and preliminary drawings, twelve months for working drawings and preparation for bidding, three months for the bid period and eighteen months for construction.

The University of South Florida at Tampa, Florida found through experience that four years elapsed between appropriations and the time the building was ready for use.

St. Louis University's experience indicates that it is possible to erect a million dollar building in a year, but only by incurring unnecessary expenditures and risking a poorly planned structure. The minimum time necessary to move from preliminary drawings to completed structure was twenty-six months; however, the average approximates thirty-six months.

The Council of Presidents in a 1964 report, "A Plan for Public Higher Education in Washington," states: "The 1965 Legislature should accordingly be asked to enact legislation to effect the establishment of a board of trustees and an administrative staff with sufficient funds to conduct studies to determine the exact location and to develop plans for another state college in western Washington. Construction funds could then be voted in 1967, and by 1970 this institution could take its place among the state colleges to share in carrying the burden of growing enrollments."

The Nelson report, "Planning for Higher Education Needs in the State of Washington" recommends: "At the earliest possible time, a new four-year college should be authorized. It should admit a freshman class by the academic year 1969-70 or as soon thereafter as is feasible." However, unless temporary facilities are used, it appears that students could not be admitted before 1971 even if the Legislature takes all necessary action during the 1967 session.

In order to meet the recommended 1971 opening date however, a program similar to that listed below would have to be followed:

Table 2

Preliminary Consideration for 1967-69 Biennium

TIME	EVENT	ACTION
October, 1966	Report on Need and Location to Governor	Temp. Advisory Council
Jan.-March, 1967	Legal Establishment of New College	Legislature
	Appropriation of Monies for Planning and Site Purchase	Legislature
July, 1967	Appointment of Board of Regents	Governor
September, 1967	Appointment of President	Board of Regents
	Appointment of Planning Staff	President
October, 1967	Appointment of Architect	Board of Regents
January 1, 1968	A Comprehensive Site Feasibility Study	Professional Consultant retained by Board
	Site Purchase	Board of Regents
	Site Use Plan	Architect
	Long Range Site Development Plan	Architect
	Basic Philosophy and Objectives	President & Staff
	Programs Consistent with Objectives	President & Staff
January 1, 1968	Library Resources for Program	Librarian
	Priorities for Program Development by Phases	President & Staff
	Priorities for Physical Facilities Consistent with Program Priorities	Architect
January 1, 1969	Determination of first phase facilities and the development of educational specifications and architectural requirements	President & Staff with Architect

TIME	EVENT	ACTION
July 1, 1969	Bids for construction of first Phase	Architect and Presidential Staff
September 1, 1969	Let contracts for construction of First Phase	Board of Regents
September, 1971	Classes start for 1000 students	

Cost Considerations

Estimating the cost of a new four-year college is a very difficult process. Inconsistencies result from variables which are unknown to the estimator such as site development costs, emphasis of programs, instructional requirements, changing costs of construction, type of construction, overall campus plan and other similar factors. However, some estimate of costs can be made in order to focus attention on the extent of the obligation.

Estimates of this kind should serve as a guide and not as a restriction or limit on the precise costs, which can only be determined later. An attempt to predict all the unknown quantities that determine actual cost would create more confusion than understanding at this point. The precise cost picture can only emerge as a result of the total planning process which includes the evaluating process after the initial buildings are in use. Cost information is being provided as requested for both short-term and long-term considerations.

Short-Term Cost Considerations

When the legislature authorizes a new public state college, it also obligates itself to appropriate funds necessary to carry out this authorization. There are various ways of determining this amount and

different assumptions which can be related to the amount of funds necessary at any given time. This study has drawn on the best estimates available from the experiences of existing colleges. The total amounts suggested in the Budget Estimate for the 1967-69 biennium are the cumulative amounts for the planning staff and the planning activities essential during this period.

It is assumed that this is the first part of a longer schedule of appropriations and therefore contain nothing which should not be expended during the biennium. However, there is much to be said for appropriating a larger amount of the total capital outlay during this biennium in order to insure that there are no delays in initial construction.

Table 3

BUDGET ESTIMATE
1967-69

Operations	1967-68	1968-69	TOTAL
Board of Regents			
Contractual Personnel Service	$ 500	$ 500	$ 1,000
Other contractual services			
Telephone Service	300	300	600
General Miscellaneous	50	50	100
Travel			
In-State	1,300	1,300	2,600
Out-of-State	800	800	1,600
Supplies and Materials	50	50	100
	$ 3,000	$ 3,000	$ 6,000

BUDGET ESTIMATE (Cont'd.)

	1967-68	1968-69	TOTAL
Office of the President			
Salary	$30,000	$30,000	$60,000
Secretary ($500/month)	6,000	6,000	12,000
Travel ($400/month)	4,800	4,800	9,600
Supplies and Materials	5,000	5,000	10,000
	$45,800	$45,800	$91,600
Planning Staff			
Academic Administration	(8 months)		
Salary	$16,000	$24,000	$40,000
Secretary ($400/month)	3,200	4,800	8,000
Travel ($150/month)	1,200	1,800	3,000
Supplies and Materials	1,500	2,500	4,000
	$21,900	$33,100	$55,000
Student Services Administration			
Salary	---	$16,000	$16,000
Secretary ($400/month)	---	4,800	4,800
Travel ($100/month)	---	1,200	1,200
Supplies and Materials	---	2,000	2,000
	0	$24,000	$24,000
Planning Officer	(8 months)		
Salary ($1250/month)	$10,000	$15,000	$25,000
Secretary ($400/month)	3,200	4,800	8,000
Travel ($100/month)	800	1,200	2,000
Supplies and Materials	2,000	3,000	5,000
	$16,000	$24,000	$40,000
Librarian and Staff	(8 months)		
Head Librarian-Salary ($1300/mo.)	$ 10,400	$ 15,600	$ 26,000
Acquisitions Asst. ($700/month)	5,600	8,400	14,000
Secretary ($400/month)	3,200	4,800	8,000
Clerk-Typist ($350/month)	2,800	4,200	7,000
Cataloguer ($700/month)	---	8,400	8,400
Travel	1,000	1,500	2,500
Supplies and Materials	1,000	5,000	6,000
	$ 24,000	$ 47,900	$ 71,900
TOTAL OPERATIONS	$110,700	$177,800	$ 288,500

BUDGET ESTIMATE (Cont'd.)

	1967-68	1968-69	TOTAL
Capital Outlay			
Temporary Office Space	$ 10,000	$ 15,000	$ 25,000
Site Feasibility Study	5,000	---	5,000
Site Purchase	500,000	---	500,000
Architectural Fees	100,000	300,000	400,000
Includes:			
Site Use Plan			
Long Range Site Development Plan			
Phase Program of Construction			
Development of Educational Specifications and Architectural Requirements			
Preparation of Drawings for Bid			
Library Materials			
10,000 volumes @ $7.00	---	$ 70,000	$ 70,000
TOTAL CAPITAL OUTLAY	$615,000	$385,000	$1,000,000
GRAND TOTAL	$725,700	$562,800	$1,288,500

Long-Term Cost Considerations

The total cost of a new college will be dependent upon many factors yet to be determined. Because of the wide variance found in past experiences throughout the nation, the estimated costs arrived at by different methods vary greatly. However, some information concerning possible projected costs is essential. The following gross projections reflect standard methods of approaching a cost estimate.

Square Feet Per Student Method. The number of square feet per student is usually figured after a campus has been constructed, but this approach can be used as a guide for developing new campuses. The number of square feet per full-time student indicated in various studies was determined by taking actual campus square feet and dividing by the capacity of full-time students derived from a formula. The best information available from several published reports is given in an attempt to throw some light on the problem.

Table 4

Estimated Square Feet
Per Full-Time Student

Report	Gross Sq.Ft. Per Full-Time Student	Number of Students	Gross Sq.Ft.	Total Sq. Footage Requirements
Nelson	175 Lower Div.	3000	525,000	
	250 Upper Div.	3000	750,000	1,275,000
Michigan	170 Lower Div.	3000	510,000	
	190 Upper Div.	3000	570,000	1,080,000
Illinois	164 (Average)	6000	984,000	984,000

Cost Per Square Foot. It is difficult to estimate costs per square foot because of a lack of unanimity in published sources regarding what factors are to be included, as well as in variations among published standards. In surveying actual costs of construction in Washington during the past two years, we find that the median cost is about $32.00 per square foot. So, for purposes of estimating, we are using this figure. An increase of 5% of the base year is used in interpolating costs for future years.

Table 5

Estimated Costs per Sq. Ft.

1966	1969	1971	1973
$32.00	$36.80	$40.00	$43.20

Table 6

Estimated Costs
for Accommodation of 6000 FTE Students
Assuming Three Increments of 2000 Students
Based on Illinois Report

Start Constr. Date	# FTE Students	Average Sq. Ft. Required per FTE Student	Cost Per Sq. Foot	Total Cost in Millions of Dollars (Cols 2x3x4)
1969	2000	164	$36.80	$12.1
1971	2000	164	$40.00	$13.1
1973	2000	164	$43.20	$14.2
TOTALS	6000	---	---	$39.4

Table 7

Estimated Costs
for Accommodation of 6000 FTE Students
Assuming Three Increments of 2000 Students
Based on Michigan Statewide Study

Start Constr. Date	# FTE Students	Average Sq. Ft. Required per FTE Student	Cost Per Sq. Foot	Total Cost in Millions of Dollars (Cols 2x3x4)
1969	2000	180	$36.80	$13.2
1971	2000	180	$40.00	$14.4
1973	2000	180	$43.20	$15.6
TOTALS	6000	---	---	$43.2

Table 8

Estimated Costs
for Accommodation of 6000 FTE Students
Assuming Three Increments of 2000 Students
Nelson Report Formula

Start Constr. Date	# FTE Students	Average Sq. Ft. Required per FTE Student	Cost Per Sq. Foot	Total Cost in Millions of Dollars (Cols 2x3x4)
1969	2000	212.5	$36.80	$15.6
1971	2000	212.5	$40.00	$17.0
1973	2000	212.5	$43.20	$18.4
TOTALS	6000	---	---	$51.0

Table 9

Comparative Costs
Based on Three Sources*

Start Constr. Date	# FTE Students	Nelson Report	Michigan Study	Illinois Report
1969	2000	$15.6	$13.2	$12.1
1971	2000	$17.0	$14.4	$13.1
1973	2000	$18.4	$15.6	$14.2
--	6000	$51.0	$43.2	$39.4

*These figures do not include costs of residence or dining facilities

Cost Per Student Method. Another guideline which is frequently used is to attempt to determine the cost per student for development of the total campus. The cost per student continues to rise so it is necessary to use an adjusted amount for the future. In these examples, an increase of 5% of the base year, 1966, is used to estimate future costs:

Table 10

Estimated Cost
Per Full-Time Student

Report	Year	Cost Per FTE	Adjusted 1966 Cost	Projected for 1969	Proj. for '71	Proj. for '73
Nelson	1966	$5500 Low.Div. $8900 Up. Div.	$7200	$7835	$9000	$9720
Calif.	1958	$4280	$6000	$6900	$7500	$8100
Ill.	1963	$6000	$6900	$7800	$8400	$9000

Table 11

Estimated Cost of Facilities*
Three-Phase Construction
for Occupancy in 1975

Start Construction Date	No. of FTE	Nelson Report	California Report	Illinois Report
1969	2000	$15.7	$13.8	$15.6
1971	2000	$18.0	$15.0	$16.8
1973	2000	$19.4	$16.2	$18.0
TOTALS	6000	$53.1	$45.0	$50.4

*The figures do not include costs of residence or dining facilities. Current estimates indicate an additional cost of $6000 per student housed on campus.

There are various other methods which one may use to gather estimates and ideas about costs of new campuses. There is much more information which might be used to substantiate or build a stronger case. However, an overall estimate at this point in time, should be sufficient. All data reviewed and referred to in this report suggest that the cost of providing a campus for 6000 full-time students by 1975 will exceed forty-five million dollars. Actual cost estimates will continually be refined in the light of program design and construction costs.

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A detailed description of the plan developed for the coordination and planning of higher education in the State of Illinois. Chapter five considers construction costs and building utilization.

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A presentation of the planning steps taken by 10 institutions in the expansion of existing facilities and the development of new campuses.

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This publication analyzes the planned instruction reported by college and university administrators for the period 1956-70. Costs per square foot of buildings is provided for the major regions of the country.

College and University Facilities Survey Part 5: "Enrollment and Facilities of New Colleges and Universities Opening Between 1961 and 1965." Washington, D.C.: United States Office of Education, 51009, Circ. No. 773, 1965, 50 pp.
A publication which offers valuable information pertaining to the number, square feet, cost, and cost per square foot of new construction completed and planned by new higher institutions, by functional type: 1961-65.

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A report describing procedures developed in preparing rational site programs and budgets, and ways in which logical and meaningful methods apply to the expenditures of these funds throughout the planning and construction process. Appendix H includes price ranges for budget estimates of specific site development items.

Guide for Campus Planning. Albany, New York: State University Construction Fund, December, 1964. 46 pp.

The description of a comprehensive campus plan for each of twenty-two campuses as prepared by a team of architects and planners for the State of New York.

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