Summer 1971

A Survey of Qualifications and Job Activities of Employees Responsible for Space Analysis in Public Four Year Institutions of Higher Education

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A SURVEY OF QUALIFICATIONS AND JOB ACTIVITIES OF EMPLOYEES RESPONSIBLE FOR SPACE ANALYSIS IN PUBLIC FOUR YEAR INSTITUTIONS OF HIGHER EDUCATION

A Thesis

Presented to

the Graduate Faculty

Central Washington State College

In Partial Fulfillment

of the Requirements for the Degree

Master of Education

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by

Duane Marvin Skeen

August, 1971

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A SURVEY OF QUALIFICATIONS AND JOB ACTIVITIES OF EMPLOYEES RESPONSIBLE FOR SPACE ANALYSIS IN PUBLIC FOUR YEAR INSTITUTIONS OF HIGHER EDUCATION

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This paper presents the results of a national survey of 342 four year public institutions of higher education. The survey was conducted by questionnaire. Its purpose was to determine the administrative level, educational background, and major job responsibilities of persons performing analysis of physical facility needs in colleges and universities. The survey revealed that 115 (46.18 percent) of 249 responding institutions had such an employee. The most frequently reported job title was Campus Planner, and Bachelor's degrees in Business Administration and Education were the most common undergraduate majors. The major job tasks reported were long-range space projection, facilities inventory, space utilization studies, and miscellaneous planning and research activities.

ACKNOWLEDGMENTS

The writing of this paper required generous amounts of time, patience, and encouragement. To the persons who devoted so much of each in assisting me on its completion, I wish to express my sincerest gratitude.

First, to my wife for her assistance, constant understanding, and special encouragement, without which the project may never have been started.

Second, to my parents for their time and encouragement.

Third, to the members of my committee whose keen guidance and very helpful suggestions enabled me to complete the project.

Fourth, but certainly not last, my special thanks go to Miss Norma Olsonoski, Planning Analyst, University of Washington and Mr. Al Mosseau, Space Analyst, Washington State University. It has been their always ready and sincere assistance which enabled me to acquire the background and training essential to my undertaking the thesis of the paper.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

Colleges and universities throughout the United States have continually faced increasing student enrollments. Paralleling the student influx has been the demand for increased facilities. Attempts at meeting the facility needs have been largely through new construction or increased use of existing facilities. The success of either in providing adequate accommodations is dependent upon adequately trained and efficient planning staff.

I. THE PROBLEM

Statement of the Problem

It was the purpose of this study (1) to determine the administrative level, (2) academic background and desirable training, and (3) essential tasks of employees responsible for analyzing physical facility needs in four year public institutions of higher education.

Limitations of the Study

The study was descriptive in nature and restricted to four year public supported colleges and universities throughout the fifty states. The participating individual at each institution was limited to

a full-time employee. It was requested that this employee, if he existed, be that person who was responsible for evaluating and analyzing building space needs for the institution.

II. DEFINITION OF TERMS USED

Facilities inventory

A classification and inventory scheme for types and uses of floor space within college and university buildings.

Facilities planning

The total of all tasks which support and direct building acquisition for a college or university.

Instructional program

The compilation of courses, teaching aids, and teaching methods designed to promote learning in a specific subject or field.

Physical facilities

Limited within this study to those buildings used and/or designed specifically to house the instructional program.

Space analysis

The translation of an expanding or changing instructional program or enrollment into square feet of space required either for existing or future needs.

Space projection

The process of correlating space analysis techniques with projected student enrollments. The result is a scientific and systematic approach to the measurement of future building needs.

Utilization study

In this study the term is confined to classroom and laboratory space. It refers to their use in terms of hours per week and the percent of available chairs (stations) occupied.

III. ORGANIZATION OF THE REMAINDER OF THE THESIS

The remainder of this study is combined into four chapters: (1) a review of related literature, (2) a summary of how this study was conducted, (3) an analysis of the study's findings, and (4) a summary, conclusions, and recommendations. The final chapter will combine the conclusions and recommendations in the form of a job description based on the results of the study.

CHAPTER II

REVIEW OF THE LITERATURE AND RELATED STUDIES

Preparation for the literature review centered on a search for studies or research on the educational qualifications and major tasks of persons performing space analysis or facilities planning duties in colleges and universities. No study was found which had previously surveyed the qualifications of such employees. The same holds true for any effort to determine their combined responsibilities.

There is limited information available on the duties of space analysts in "government agencies or unit of business" (3:674). The information is contained in a job description found in the Dictionary of Occupation Titles. The description is limited in that specific reference to higher education is not included. To attempt equating it with higher education would be to ignore the importance and effects of continual changes in instructional program and course enrollments. These factors require special techniques of measurement and evaluation unique to colleges and universities. The description makes no reference to such techniques and makes only limited mention of activities which involve them.

The review of available literature did, however, reveal considerable support for a systematic and qualitative approach to facilities planning in colleges and universities. The arguments were contained in various publications and procedural manuals pertaining to such planning.

William T. Middlebrook, in his book, How to Estimate the Building Needs of a College or University, expresses the truism that "education is not a static process" (8:3). Student populations grow, instructional programs and course offerings alter, research techniques are updated, and public services expand. These factors require new kinds and amounts of space and in his opinion are "demanding new solutions to space problems" (8:3). It is his belief that higher education's greatest problem is that of providing adequate physical facilities (8:3).

It is too costly to approach this problem in an unsystematic or informal manner. A Ford Foundation Educational Facilities Laboratory survey, reported by Miller (9:2) in 1967, estimated the cost for each additional student enrolling in a college or university at $3500. Of this amount, $1500 was for classrooms and teaching laboratories. The remaining $2000 went for research, residential areas, replacement or renovation of inadequate facilities, and other similar purposes. On the basis of these figures and estimated enrollments, the capital outlay by 1977 could exceed $10,000,000,000 according to Miller.

Elements of perhaps even greater importance or value must be added to Miller's ten billion dollar figure for facilities. The most costly of these is salaries for faculty and administrators, to paraphrase John Y. Jamrich. He believes that while space for learning is essential, it must not, through improper control and planning, consume a disproportionate amount of too often limited funds. An early study reported

by Jamrich disclosed that liberal arts colleges were planning to build four times the required laboratory space (6:5). This is not indicative of an overall trend, but it does exemplify the need for qualified planning staff in higher education. Such practices, if allowed to continue or expand, could result in facilities dictating type and quality of program.

The preceding review of related literature, while not exhaustive, is intended as representative of concerns expressed by several authors of publications on institutional planning. Richard P. Dober, author of Campus Planning states: "Out of necessity the gap between the intention to plan and the act of planning is slowly being closed" (4:7).

The thesis of this study was conceived under the premise that colleges and universities, realizing the aforementioned pressures and possible problems, should be interested in employing qualified physical facilities analysts. The study attempts to determine and define the desirable qualifications and essential tasks of such employees.

CHAPTER III

METHODS AND PROCEDURES

The two preceding chapters defined the study reported herein and its intended purpose. This chapter describes how the sampling instrument (questionnaire) was developed and distributed among the sample population selected for the study.

I. THE QUESTIONNAIRE

Development and Format

Original data for the study was obtained through a survey conducted by questionnaire. Both it and the accompanying cover letter are shown in Appendix A. The questionnaire was comprised of twenty-four questions. The questions were distributed throughout three parts: (1) Questionnaire Applicability, (2) General Information, and (3) Major Job Functions. Each part and its questions served a separate purpose in soliciting specific information. Part one determined whether the institution had a full time employee engaged in space analysis activities. In addition, it sought enrollment data on the responding institution. Part two was completed by the full time employee responsible for space analysis activities. It determined both their administrative level and personal educational background. Part three surveyed the various

responsibilities and tasks, directly and indirectly related to space analysis activities in which the employee was involved.

Validation

Following initial development, face validity of the questionnaire was determined by having Miss Norma Olsonoski, Planning Analyst, University of Washington, and Mr. Al Mousseau, Space Analyst, Washington State University, experienced and competent professionals, review the questions and format. Both individuals recommended changes and additions designed to fulfill the objectives for each section of the questionnaire. Their recommended revisions were incorporated and final approval of the draft was given by the Thesis Committee Chairman.

II. SELECTION OF THE POPULATION

A total of 342 public supported four year colleges and universities were selected to receive copies of the questionnaire. Two hundred thirty-seven of the institutions contacted were 1970 members of the American Association of State Colleges and Universities (AASCU), the majority of which were below 10,000 enrollment. The remaining 105 were non AASCU members selected on the basis of enrollment (10,000 or above) from the 1970 Yearbook of Higher Education (12:11-402). They accounted for all of the four year public institutions above 10,000 enrollment listed in the 1970 Yearbook.

It should be noted that AASCU membership numbered 271 but only the 237 contacted were listed with sufficient mailing information in the 1970 Yearbook of Higher Education.

III. ADMINISTRATION OF THE QUESTIONNAIRE

Copies of the approved questionnaire and cover letter were mailed to the 342 schools on January 3, 1971. On February 26, 1971, a reminder, Appendix B, was mailed to the 105 initial contacts who had failed to respond. A final cutoff date for accepting returns was set for March 20, 1971. A return of seventy-two and eight-tenths percent (249 questionnaires) was achieved by the final date.

IV. FINAL ANALYSIS OF RESPONSE TO THE QUESTIONNAIRE

The returns were tabulated on prearranged forms representing each question. The forms were refined and developed into Tables I through XXII. It was from these tables that the narrative for Chapter IV was developed.

CHAPTER IV

THE QUESTIONNAIRE RESULTS

This chapter presents the results obtained from the survey questionnaire. It is devoted to reporting the administrative level, educational background, and major job responsibilities of employees performing space analysis activities at four year public institutions of higher education. The questionnaire surveyed only existing conditions except for questions eleven, twelve, and thirteen in Part II which asked for respondent's opinions.

The questionnaire results were presented both in narrative version and by uniformly arranged tables. Narrative presentations summarized the important findings listed in the tables. They were arranged using the three questionnaire parts as the first levels of chapter subdivisions and the actual questions or their approximation as the second level. The tables were numbered to twenty-two and placed in the Appendix.

I. QUESTIONNAIRE APPLICABILITY

The following narration analyzes the response to Part I of the questionnaire.

Number of Questionnaire Mailings and Returns by Headcount Enrollment of Institution

The number of questionnaire mailings and returns was distributed throughout five enrollment ranges as is shown in these results:

Enrollment	No. of Mailed	No. Returned	Percent Returned [1]
Under 1,000	2	1	50.00
1,000 to 3,999	98	60	61.22
4,000 to 9,999	132	104	78.79
10,000 to 19,999	74	55	74.32
20,000 or more	36	29	80.55
TOTAL	342	249	72.81

[1]All percentages rounded to two decimal places.

The narration of survey results which follows is based on the "total" or combined response of all ranges of enrollment. A presentation of findings by "enrollment range" is available in Tables I through XXII, Appendixes C through X.

Number of Responding Institutions With/Without a Full Time Employee in Space Analysis Activities

Table I, Appendix C, reveals that only 115 of the 249 responding institutions had a full time employee who performed space analysis activities. This does not indicate a total lack of such activities among

the 134 remaining institutions; as Table II, Appendix D, shows a majority of those institutions without such an employee delegated the responsibilities to various academic or administrative personnel. Those employees most frequently reported as responsible for such activities were various combinations of administrative personnel referred to in Table II as "Administrative Group." Such a "group," for example, might have included one or more deans, a registrar, and one or more department chairmen. The second highest response indicated that "deans" made all decisions on space matters. The only other response of relatively high frequency was "faculty committee" indicating that faculty, in addition to teaching, were expected to make decisions affecting use of building space.

II. GENERAL INFORMATION

The narrative that follows analyzes the response to Part II of the questionnaire.

What is Your Official Job Title?

The various titles under which respondents were employed are shown in Table III, Appendix E. The title most frequently reported was Campus Planner. The titles of Space Analyst and Director of Institutional Research/Studies were tied for second highest response.

Under What Department Do You Work?

Respondents were asked to specify to which office or department they reported. As indicated in Table IV, Appendix F, there was a wide variety of departments and administrative positions given. However, that most frequently reported was the department of Institutional Research/ Studies. Campus Planning and Facilities Planning were tied for second highest response. These latter two titles may be synonymous in terms of the functions they represent, though the actual determination of this was beyond the scope of the survey.

To Which Administrative Element Does Your Department Report?

An attempt was made to determine the administrative level to which the respondents' departments reported. As shown in Table V, Appendix G, the most frequently reported level was the President of the institution. The Vice President for Business Affairs received the second highest response with the Vice President for Academic Affairs placing third. Thus the most frequent administrative arrangement was that of making the Campus Planner and department of Institutional Research independent of either of the institution's business or academic operations.

How Many Persons Work Full Time as Space Analysts in Your Institution?

Table VI, Appendix H, indicates that seventy-seven of the 115 responding institutions had only one full time employee responsible for

performing space analysis activities. An additional twenty-two institutions employed two such personnel. Of those institutions with two employees, the highest frequency occurred in the "10,000 to 19,999" enrollment range rather than the "20,000 or more" range, contrary to what might be expected.

Indicate the Division Designation For Your Job

As shown in Table VII, Appendix I, the majority of all respondents was designated as administrative personnel. This meant that most respondents were non civil service (exempt) and performed no teaching duties.

What Approximate Annual Salary is Designated For Your Position?

Responses to question six showed that annual salary ranges varied from a low of $6,000 to $9,000 to a high of over $20,000. The range most frequently reported was $15,000 to $20,000 as shown in Table VIII, Appendix J. This range represented slightly over one third of all respondents. An annual salary range of $12,000 to $15,000 was second highest with a response of nearly twenty-seven percent. The variation among those salaries most frequently reported plus a wide overall range of salaries indicates little interinstitutional effort at standardizing salaries for employees involved in space analysis activities. Furthermore, there was no indication that salary range was dependent upon size of enrollment.

How Long Have You Been Employed in Your Present Position?

In conjunction with the content of the preceding paragraph, Table VIII also shows that nearly sixty-two percent of all respondents had been employed in their space analysis position less than five years. The second highest period indicated was five to ten years.

What is the Highest Level of Formal Education You Have Attained?

Information on the highest degree held by each respondent is illustrated in Table IX, Appendix K. The Bachelor of Science degree was most frequently reported and the Master of Science degree was second by only one response.

What Was Your Undergraduate Major?

The undergraduate majors indicated are shown in Table X, Appendix L. Those most frequently specified were Business Administration and Education. Second was Engineering, though no indications were made as to which field of engineering was most prevalent.

What College Level Course/s Have You Taken as Further Preparation For Your Job?

Table XI, Appendix M, shows the various courses respondents had taken as further preparation for their job. While twenty-four different courses were listed overall, only seven were indicated by over five percent of the respondents. They were: (1) Administrative Management, (2) Business,

(3) Computer Programming, (4) Drafting/Blueprint Reading, (5) Human Relations, (6) Mathematics, and (7) Statistics.

What College Level Course/s Do You Recommend For Persons Serving as Space Analysts in Colleges or Universities?

As illustrated in Table XII, Appendix N, respondents recommended twenty-two separate courses to further the training of space analysis employees. Seven of the courses recommended each received over a five percent response. The seven courses were (1) Administrative Management, (2) Business, General, (3) Computer Programming, (4) Drafting/Blueprint Reading, (5) Human Relations, (6) Mathematics, and (7) Statistics.

What College Major Do You Recommend For Space Analysts?

Of the 115 respondents who completed the questionnaire, fifteen failed to recommend any specific major for space analysts. Table XIII, Appendix O, shows that the one hundred remaining respondents favored a major in Business Administration first and Architecture second.

Would You Recommend Establishing a Major or Minor in the Field of Space Analysis?

Table XIV, Appendix P, shows that nearly fifty-six percent of all respondents did not recommend establishing either a college level major or minor in space analysis. Only one third of all respondents indicated that a minor should be established.

III. MAJOR JOB FUNCTIONS

The following chapter subdivisions analyze the response to Part III of the questionnaire.

Space Projection

Respondents involved in the activity of projecting space are shown in Table XV, Appendix Q. Slightly over eighty-five percent performed this function. The percentage of annual workload consumed by this activity varied from two to one hundred percent among respondents with ten percent being the most frequently occurring figure.

There were three space projection methods which received a high frequency of use as indicated in Table XVA, Appendix Q. Those most frequently used were developed at the "local" level, second highest were "state" developed methods, and third highest was the "Numeric Method." Additional information on each method is found on page 80 immediately following Table XVA, Appendix Q.

Facilities Inventory

The respondents involved in inventorying building space are shown in Table XVI, Appendix R. They totaled 107 in number or ninety-three percent of the 115 respondents. The percent of their annual workload spent in this activity varied from a low of two to a high of eighty with

ten percent being most frequent.

Table XVIA, Appendix R, indicates that the inventory method used most frequently was the Higher Education Facilities Classification Manual.[2] The various classification standards in this manual conform to all requirements of the Higher Education General Information Survey (HEGIS) Inventory of College and University Physical Facilities. This survey is conducted annually by the U. S. Office of Education and includes all institutions of higher education which receive federal support.

Classroom and Laboratory Utilization Study

Table XVII, Appendix S, shows that eighty-four percent of all respondents conducted classroom and laboratory utilization studies for their institution. The activity consumed from one to fifty percent of their annual workload with ten percent indicated most frequently.

The methods most commonly used for performing this study are reported in Table XVIIA, Appendix S. It was found that methods developed by individual states were most frequently used. Institutionally (local) developed methods received the second highest response. Where neither "state" nor "local" methods were used, respondents reported using the utilization study techniques listed at the bottom of Table XVIIA.

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[2]Higher Education Facilities Classification and Inventory Procedures Manual, (OE-51016), Superintendent of Documents, Catalog No. FS5.251:25106, U. S. Government Printing Office, Washington, D. C.

Assignment of Building Space Other Than Classrooms and Laboratories

As shown in Table XVIII, Appendix T, seventy-seven percent of all respondents were involved in the assignment of noninstructional building space. This type of space is defined as all room types which support academic departments except classrooms and laboratories. It was found that the assignment of such space consumed from one to ninety percent of the respondents' annual workload with ten percent most frequently indicated. The higher percentage was reported by an institution in the enrollment range of 20,000 or more.

Advise on Remodeling of Existing Buildings

Interiors of existing buildings are often remodeled in an effort to facilitate changing and/or expanding instructional and administrative needs. As shown in Table XIX, Appendix U, slightly over seventy-two percent of all respondents indicated that they advised on the space needs and floor layout of such projects. The table also shows that the amount of annual workload spent in this activity varied from one to thirty percent. The most frequently occurring percentage was five percent.

Classroom Scheduling

As illustrated in Table XX, Appendix V, the majority of the 115 respondents were not involved in the scheduling of classrooms. It should be noted however that those who were involved spent anywhere

from two to fifty percent of their annual workload in this activity with fifteen percent being most frequently reported.

Preparation of Legislative Budget Requests

The respondents involved in preparation of legislative budget requests indicated a wide range of responsibilities related to this activity. This information is shown in Table XXI, Appendix W, which reveals that the most frequently reported responsibility was that of calculating interior space needs for buildings being requested. The other but less frequently reported activities, related to budget preparation, are listed below Table XXI, page 90.

Major Job Responsibilities in Addition to Those Previously Listed

In addition to the job responsibilities previously listed many respondents specified several additional tasks with which they were involved. Part I of Table XXII, Appendix X, shows that these tasks accounted for anywhere from two to seventy percent of the annual workload, but were most frequently reported at ten percent. A complete list of the various additional responsibilities appears in Part II of Table XXII.

IV. SUMMARY OF CHAPTER IV

An attempt has been made in the preceding pages of this chapter to narrate the specific findings of the study. Each question of the survey

questionnaire was presented and the response analyzed. Responses were analyzed in a manner designed to contribute to the thesis of the study, that being to determine the administrative level, educational background, and job responsibilities of employees who perform space analysis activities in four year public institutions of higher education.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The continual national growth in student populations has given direct emphasis to the need for careful analysis and planning of physical facilities in institutions of higher education. Qualitative and quantitative demands for physical facilities make it imperative that qualified facilities analysts and planners be available to colleges and universities.

A survey of 342 public four year colleges and universities revealed the administrative level, educational background, and major job responsibilities of full time employees who analyzed the facilities needs in such institutions.

Administrative Level

It was found that full time employees in this field were most frequently called Campus Planner. In most cases they reported to the Office of Institutional Research/Studies which in turn reported directly to the President of the institution.

The majority of institutions that responded employed only one Campus Planner. He was classified as an administrative employee with an annual salary most frequently reported in the range of $15,000 to

$20,000. In addition, the majority of respondents had from one to five years experience in their position.

Educational Background

The highest degree held by respondents varied between the Bachelor of Science and Master of Science. These degrees were most frequently held in either Business Administration or Education.

The majority of those responding had taken several college level courses for additional job training. Those courses specifically recommended for additional training were: (1) Administrative Management, (2) Business, General, (3) Computer Programming, (4) Drafting/Blueprint Reading, (5) Human Relations, (6) Mathematics, and (7) Statistics. Beyond this training it was felt that a college major in either Business Administration or Architecture was most desirable.

Major Job Responsibilities

The survey revealed that job responsibilities in which campus planners were most frequently involved were: (1) space projection, (2) facilities inventory, (3) classroom and laboratory utilization study, (4) assignment of building space other than classrooms and laboratories, (5) advise on remodeling of existing buildings, and (6) calculate interior space of newly planned buildings submitted for funding on legislative budget requests. Additional job responsibilities were also reported,

but with less frequency. These included answering questionnaires, miscellaneous projects involving statistical reports and analysis, and various tasks related to improvement of physical facilities.

II. CONCLUSIONS AND RECOMMENDATIONS

Rather than following the accepted format for conclusions and recommendations the author has chosen to combine both in the form of a job description. The job description is intended for employees or prospective employees responsible for performing space analysis activities in public institutions of higher education. Administrators or supervisors desiring to use it should accept it as a recommended, and not an absolute guide. Used in this manner the content will hopefully serve the unique needs of individual administrations and institutions.

JOB DESCRIPTION (RECOMMENDED)

Position

Campus Planner

Annual Salary

$15,000-$20,000 (subject to variation depending on training and amount of experience).

Desired Qualifications

The Campus Planner should hold a Bachelor's degree in either Business Administration or Education. A Master's degree in these fields is equally desirable but not essential. If possible, the formal education should have included courses in administrative management, general business, computer programming, drafting/blueprint reading, human relations, mathematics, and statistics.

Explanation of Position

The Campus Planner, as a part of the administrative staff, shall be responsible to the Director of Institutional Research/Studies. As a professional administrator involved in facilities planning he should be knowledgeable of institutional policies and objectives related to changes in both enrollment and instructional programs. Such knowledge will facilitate his performance in carrying out the responsibilities of space analysis and facilities planning.

Major Job Responsibilities

1. Space projection--provide projections of physical facility requirements. The projections should be based on anticipated yearly increases in student enrollment.

Barring the availability of an accepted method for this task it is recommended that the "Numeric Method" be reviewed for possible

use. This method is defined in University Space Planning by Harlan D. Bareither and Jerry L. Schillinger, University of Illinois Press, Urbana, 1968.

2. Facilities inventory--provide an annually updated inventory of all buildings owned and/or operated by the institution. The classification scheme and format should conform to those recommended in the Higher Education Facilities Classification and Inventory Procedures Manual. If not available, the manual can be ordered from:

Superintendent of Documents
Catalog No. FS 5-251: 25106
U. S. Government Printing Office
Washington, D. C.

Ask for Document No. OE-51016

3. Classroom and laboratory utilization study--perform annually a study which analyzes the efficiency of use of classrooms and laboratories. The study should include recommendations on how to improve the efficiency of room use.

Any of the following methods may be selected for use in conducting this study:

Bareither, Harlan D., and Schillinger, Jerry L., University Space Planning, University of Illinois Press, Urbana, 1968.

Jamrich, John X., To Build or Not to Build, A Report From Educational Facilities Laboratories.

Russell, John Dale and Doi, James I., Manual For Studies of Space Utilization in Colleges and Universities, Ohio University Press, Athens, Ohio, 1957.

Schwehr, B. J. and F. E., Procedures For Physical Facility and Utilization Studies, Wisconsin State University System.

Space Analysis Manuals, Western Interstate Commission For Higher Education, Boulder, Colorado, 1971.

State University of New York, Office of Vice Chancellor for Campus Development, 194 Washington Avenue, Albany, New York, 12210, 1970.

4. Assignment of noninstructional building space--assist all levels of staff and departments in locating and acquiring additional or more desirable space for offices, storage, and laboratory service areas as the need may arise.

5. Advise on remodeling of existing buildings--maintain an awareness to the special or expanding space needs of departments and

staff. When such needs are to be met through remodeling, the Campus Planner will advise on the changes needed.

6. Preparation of legislative budget requests--determine the internal space needs of all newly planned buildings prior to their submittal for legislative approval and funding. Serve as advisor to the committees selected to program the planned structure/structures.

Other budget preparation duties may be assigned also. The most likely will be preparation of "justification statements" for the building being requested.

7. Miscellaneous job responsibilities--assist in or carry out various other tasks as may be required by the Director of Institutional Research/Studies.

III. PROBLEMS FOR FURTHER STUDY

The limitations of this survey prevented the answering of some questions related to the findings. The questions suggested further studies in the following areas:

1. A survey should be conducted to determine the extent to which computers are involved in space projections, utilization studies, and facilities inventories in colleges and universities.

2. An analysis should be made of the various space projection methods listed by respondents to determine the validity of these methods.

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6. Jamrich, John X. To Build or Not to Build, A Report on the Utilization and Planning of Instructional Facilities in Small Colleges, A report from Educational Facilities Laboratories, 38 pp.

7. Long-Range Planning in Higher Education, Owen A. Knorr, Editor, Western Interstate Commerce Commission of Higher Education, 1968, 128 pp.

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10. Ernest G. Palola, Timothy Lehmann, and William R. Blischke. The Reluctant Planner, The Role of Faculty in Institutional Planning, U. S. Department of Health, Education, and Welfare, ERIC Document Reproduction Service, 1968, 22 pp.

11. Russell, John Dale, and James I. Doi. Manual for Studies of Space Utilization in Colleges and Universities, American Association of Collegiate Registrars and Admissions Officers, 1957, 130 pp.

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12. Yearbook of Higher Education, 1970, Alvin Renetzky, Ph. D., Editor-in-Chief, Academic Media, Los Angeles, California, 644 pp.

APPENDIX A

Office of Institutional Studies
Central Washington State College
Ellensburg, Washington 98926

Dear Sir:

Your help is needed in conducting a study on space analysis in institutions of higher education. I would appreciate your taking the time to complete PART I of the attached questionnaire. Instructions for completion of PARTS II and III are contained in PART I.

The information requested will be summarized in a thesis submitted as partial fulfillment of a Master of Arts degree. The answers provided will be summarized in such a manner that neither the institution nor any individual respondent will be identified in any way.

The merit to this study lies in the need for careful facilities planning on the nation's campuses. At a time of limited aid to higher education combined with rapid enrollment growth this need cannot be overlooked. This study will analyze the desirable training and essential tasks of employees responsible for analyzing physical facility needs of four-year public supported institutions.

An abstract of the study will be developed. If you desire a copy, place the appropriate mailing address in the spaces provided on the bottom of this page.

Please encourage the proper respondent to complete the questionnaire and return it in the self-addressed, stamped envelope. Return of this material is requested by February 24, 1971.

Thank you for your cooperation.

Very truly yours,

Duane Skeen
Space Analyst
Central Washington State College

Mailing address for copy of abstract.

_____

_____

_____

Please Note: A signature was redacted due to security concerns.

APPENDIX A (continued)

A SURVEY ON SPACE ANALYSIS IN PUBLIC INSTITUTIONS OF HIGHER EDUCATION

Conducted by Duane M. Skeen, Space Analyst
Department of Institutional Studies
Central Washington State College
Ellensburg, Washington 98926
February 1, 1971

This request for information is being sent to 342 public supported four year state colleges and universities throughout the 50 states. It represents an effort to determine the major responsibilities and training of persons employed as analysts of space needs in public institutions of higher education.

Instructions are on the questionnaire as necessary; however, the following information should be noted:

NEITHER YOU NOR YOUR INSTITUTION WILL BE IDENTIFIED IN ANY REPORT OF FINDINGS, NOR WILL ANY INFORMATION OR COPIES OF COMPLETED QUESTIONNAIRES BE USED BEYOND THE ORIGINALLY REPORTED FINDINGS.

Please check (✓) the appropriate response to the questions below. Write in your response when those listed are not applicable.

PART I. QUESTIONNAIRE APPLICABILITY

1. Please indicate your institution's head count enrollment for fall session 1970.

a) _____ below 1,000
b) _____ 1,000 to 4,000
c) _____ 4,000 to 10,000
d) _____ 10,000 to 20,000
e) _____ above 20,000

2. Does your institution employ a full-time space analyst or person by another title who has responsibility for evaluating and analyzing space needs?

   a) _____ Yes
   b) _____ No

   If the answer above is yes please ignore question 3 below and forward this questionnaire to the proper employee for completion of PART II and PART III. If the answer above is no please answer question 3 below and then return the incompleted questionnaire in the self-addressed, stamped envelope.

3. How are space requirements for academic programs and departments determined at your school?

   a) _____ Department chairman's decision
   b) _____ Decision by Deans
   c) _____ State decision
   d) _____ Registrar's decision
   e) _____ Presidential edict
   f) _____ Governing board (Trustees)
   g) _____ Architectural consultant
   h) _____ Faculty committee
   i) _____ Other (Please indicate)_____

The following two parts of this questionnaire are to be completed by the employee who analyzes campus space needs.

Please check (✓) the appropriate response to each question.

Return of this questionnaire (PARTS I, II, AND III) is requested by February 24, 1971. A self-addressed, stamped envelope is provided.

PART II. GENERAL INFORMATION

1. What is your official job title?
   a) _____ Space Analyst
   b) _____ Space Management Analyst
   c) _____ Planning Analyst
   d) _____ Campus Planner
   e) _____ Other (Please indicate) _____

APPENDIX A (continued)

2. Under what department do you work?

a) _____ Institutional Research/Studies
b) _____ Research and Development
c) _____ Facilities Planning
d) _____ Campus Planning
e) _____ Engineering
f) _____ Other (Please indicate) _____

3. To which administrative element does your department report?

a) _____ President
b) _____ Executive to the President
c) _____ Vice President for Academic Affairs
d) _____ Vice President for Business Affairs
e) _____ Business Manager
f) _____ Other (Please indicate) _____

4. How many persons work full-time as space analysts in your institution?

a) _____ One
b) _____ Two
c) _____ Three
d) _____ Four
e) _____ More than four

5. Indicate the division designation for your job.

a) _____ Administrative (Exempt)
b) _____ Academic (Faculty status)
c) _____ Staff Civil Service
d) _____ Other (Please indicate) _____

6. What approximate annual salary range is designated for your position?

a) _____ $6,000 - $9,000
b) _____ $9,000 - $12,000
c) _____ $12,000 - $15,000
d) _____ $15,000 - $20,000
e) _____ Other (please indicate) _____

APPENDIX A (continued)

7. How long have you been employed in your present position?

_____ Years _____ Months

8. What is the highest level of formal education you have attained?

a) _____ No degree held
b) _____ Associate of Arts
c) _____ BA
d) _____ BS
e) _____ MA
f) _____ MS
g) _____ PhD
h) _____ EdD
i) _____ Other (Please indicate)_____

9. What was your undergraduate major?

a) _____ Business Administration
b) _____ Education
c) _____ Engineering
d) _____ Industrial Technology
e) _____ Urban Planning
f) _____ Other (Please indicate) _____

10. What college level course/s have you taken as further preparation for your job?

a) _____ Statistics
b) _____ Mathematics
c) _____ Computer Programming
d) _____ Drafting and/or blueprint reading
e) _____ Administrative Management
f) _____ Business
g) _____ Human Relations
h) _____ Other (Please indicate) _____

11. What course/s do you recommend for persons serving as space analysts in colleges or universities?

a) _____ Statistics
b) _____ Mathematics

APPENDIX A (continued)

c) _____ Computer Programming
d) _____ Drafting and/or blueprint reading
e) _____ Administrative Management
f) _____ Business
g) _____ Human Relations
h) _____ Other (Please indicate) _____

_____

12. What college major do you recommend for space analysts? Please indicate below:

_____

_____

13. Would you recommend establishing a major or minor in the field of space analysis?

a) _____ No
b) _____ Yes - Minor
c) _____ Yes - Major
d) _____ Yes - Major and Minor

PART III. MAJOR JOB FUNCTIONS

Part III is for determining the major duties of questionnaire respondents. Please check the appropriate duties and indicate the percentage of time spent in each area. The total of all percentages should equal 100 percent. One-hundred percent represents an average work year.

The "Method Used" portion of each response refers to the title and author of a specific manual or instructional text followed when performing the particular duty. Such a manual or text might have been obtained from another institution or state, from a state coordinating agency, or developed within your institution.

1. _____ Long-range analysis of campus space needs for academic and administrative elements.
Method used. _____

_____

Percentage of time. _____

APPENDIX A (continued)

2. _____ Inventory of building space.
   Method used. _____

   _____

   Percentage of time. _____

3. _____ Utilization studies on classrooms and teaching laboratories.
   Method used. _____

   _____

   Percentage of time. _____

4. _____ Assignment of building space other than classrooms and laboratories.
   Percentage of time. _____

5. _____ Advise on remodeling of existing buildings.

   Percentage of time. _____

6. _____ Classroom scheduling.

   Percentage of time. _____

7. _____ Preparation of legislative budget requests. Please indicate below the task performed.

   a) _____ Calculation of space requirements for new buildings included in budget request.

   b) _____ Other (Explain) _____

   _____

   _____

8. Please list below any major responsibilities you have in addition to those previously designated.

   a) _____

   _____

   _____

APPENDIX A (continued)

b) _____

_____

_____

Percentage of time. _____

c) _____

_____

_____

Percentage of time. _____

APPENDIX B

Office of Institutional Studies
Central Washington State College
Ellensburg, Washington 98926

Dear Sir:

On February 1, 1971, I mailed you a questionnaire relevant to a study on space analysis in higher education. No response has been received. I am now asking for your help in securing the questionnaire's return. If your school employs someone who determines departmental or program space needs then the object should be in their hands.

The questionnaire is essential to the study's validity, its immediate return is requested. Your assistance in this request will be greatly appreciated.

Yours truly,

Duane Skeen
Space Analyst
Central Washington State College

APPENDIX C

TABLE I

NUMBER OF RESPONDING INSTITUTIONS WITH/WITHOUT A FULL TIME EMPLOYEE IN SPACE ANALYSIS ACTIVITIES

	Size of Enrollment									
Space Analysis Employee	Under 1,000		1,000 to 3,999		4,000 to 9,999		10,000 to 19,999		20,000 or More		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Institutions With	0		12	25.00	46	44.23	32	58.18	25	86.21	115	46.18
Insitutions Without	1	100	48	75.00	58	55.77	23	41.82	4	13.79	134	53.82
Total	1	100	60	100	104	100	55	100	29	100	249	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX D

TABLE II

POSITION/POSITIONS RESPONSIBLE FOR DETERMINING SPACE REQUIREMENTS WHEN FULL TIME SPACE ANALYSIS PERSONNEL WERE NOT EMPLOYED

Position/s Responsible	Size of Enrollment: Under 1,000		1,000 to 3,999		4,000 to 9,999		10,000 to 19,999		20,000 or More		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Department Chairman					2	3.45					2	1.49
Deans	1	100.00	12	25.00	6	10.35	2	8.70			21	15.67
State Decision			3	6.25	3	5.17	1	4.35			7	5.22
Registrar			1	2.08	4	6.90	1	4.35			6	4.48
President			2	4.17							2	1.49
Governing Board			1	2.08							1	.75

APPENDIX D (continued)

Position/s Responsible	Size of Enrollment: Under 1,000		1,000 to 3,999		4,000 to 9,999		10,000 to 19,999		20,000 to More		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Faculty Committee			6	12.50	7	12.50	5	21.73			18	13.43
Administrative Group			21	43.75	29	50.00	8	34.77	4	100.00	62	46.27
Director Inst. Research					2	3.45					2	1.49
V. P. for Planning							1	4.35			1	.75
Director Campus Planning					1	1.72					1	.75
V. P. for Instruction					1	1.72	1	4.35			2	1.49
Campus Planning Committee					2	3.45	2	8.70			4	2.99

APPENDIX D (continued)

Size of Enrollment

Position/s Responsible	Under 1,000		1,000 to 3,999		4,000 to 9,999		10,000 to 19,999		20,000 or More		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
No Response			2	4.17	1	1.72	2	8.70			5	3.73
Total	1	100	48	100	58	100	23	100	4	100	134	100

NOTE: All percentages rounded to two decimal places.

APPENDIX E

TABLE III

OFFICIAL POSITION TITLES OF RESPONDENTS

Position Title	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Administrative Assistant			1	2.17					1	.87
Administrative Assistant to the Dean							1	4.0	1	.87
Administrative Research Assistant					1	3.12			1	.87
Architectural Planner					1	3.13			1	.87
Assistant Director of Campus Planning					1	3.12			1	.87
Assistant Director of Institutional Studies			1	2.17			1	4.0	2	1.74

APPENDIX E (continued)

Position Title	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Assistant Executive Dean of Facilities	1	8.33								
Assistant to the Chancellor							1	4.0	1	.87
Assistant Dean of Administration			1	2.17					1	.87
Assistant to President for Planning and Development			1	2.17					1	.87
Associate Dean of Administration			1	2.17					1	.87
Associate Director of Institutional Studies							1	4.0	1	.87
Associate Vice President for Development and External Relations			1	2.17					1	.87
Building Coordinator							1	4.0	1	.87
Campus Planner	4	33.33	7	15.22	6	18.75	2	8.0	19	16.52

APPENDIX E (continued)

Position Title	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Coordinator of Academic Affairs					1	3.13			1	.87
Coordinator of Planning for Institutional Research			1	2.17					1	.87
Coordinator of Scheduling and Space							1	4.0	1	.87
Coordinator of Space Studies			1	2.17			1	4.0	2	1.74
Dean of Administrative Affairs			1	2.17					1	.87
Director of Academic Scheduling and Space Assignment					1	3.12			1	.87
Director of Facilities Construction and Utilization					1	3.13			1	.87
Director of Facilities			1	2.17					1	.87

APPENDIX E (continued)

Position Title	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Director of General Services			1	2.17					1	.87
Director of Institutional Planning			1	2.17	1	3.12			2	1.74
Director of Institutional Research/ Studies	1	8.33	6	13.04	3	9.38			10	8.69
Director of Physical Facilities	1	8.33							1	.87
Director of Physical Planning			1	2.17					1	.87
Director of Planning and Development					1	3.12			1	.87
Director of Research and Development			1	2.17					1	.87
Director of Space Utilization	1	8.33	1	2.17	2	6.25	2	8.0	6	5.22

APPENDIX E (continued)

Position Title	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Director of University Space Program							1	4.0	1	.87
Director of University Systems Analysis					1	3.12			1	.87
Educational Assistant II					1	3.13			1	.87
Educational Facilities Planner							1	4.0	1	.87
Executive Assistant for Space Analysis and Programming			1	2.17					1	.87
Executive Dean					2	6.24			2	1.74
Facilities Planning Director			3	6.52					3	2.60
Facilities Programming Coordinator							1	4.0	1	.87

APPENDIX E (continued)

Position Title	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Facilities Requirements Analyst					1	3.13			1	.87
Institutional Planner			2	4.35					2	1.74
Institutional Resource Analyst			1	2.17					1	.87
Physical Facilities Coordinator			3	6.52					3	2.60
Planning Analyst			1	2.17					1	.87
Principal Educational Facilities Planner							1	4.0	1	.87
Research Analyst			1	2.17					1	.87
Research Associate					1	3.12	1	4.0	2	1.74
Scheduling Officer			1	2.17	1	3.13			2	1.74
Space Allocation Representative							1	4.0	1	.87

APPENDIX E (continued)

Position Title	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Space Analyst	2	16.67	3	6.52	3	9.37	2	8.0	10	8.69
Space Coordinator							2	8.0	2	1.74
Space Management Analyst	1	8.33							1	.87
Space Facility Manager	1	8.33							1	.87
Space Utilization Analyst					2	6.25			2	1.74
Special Assistant to the President for Long-Range Planning							1	4.0	1	.87
Special Assistant to the Dean of Planning and Analysis for Campus Planning			1	2.17					1	.87

APPENDIX E (continued)

Position Title	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
University Architect and Planner					1	3.12			1	.87
No Response			1	2.17			2	8.0	3	2.61
Total	12	99.98	46	99.91	32	99.98	25	100	115	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX F

TABLE IV

TITLES OF OFFICES UNDER WHICH RESPONDENTS WORKED

	Size of Enrollment									
	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
Title	No.	%	No.	%	No.	%	No.	%	No.	%
Academic Affairs Office					1	3.12			1	.87
Administrative Affairs			1	2.17					1	.87
Administrative Planning			1	2.17					1	.87
Assistant to the President			1	2.17					1	.87
Business and Finance			1	2.17	2	6.25			3	2.61
Campus Development							1	4.0	1	.87
Campus Planning	4	33.33	4	8.70	6	18.75	3	12.0	17	14.78
Chancellor							2	8.0	2	1.74
Dean of Administration			2	4.35			1	4.0	3	2.61

APPENDIX F (continued)

Title	(1) 1,000 to 3,999 No.	%	(2) 4,000 to 9,999 No.	%	(3) 10,000 to 19,999 No.	%	(4) 20,000 or More No.	%	(5) Total No.	%
Department of Budgets and Institutional Studies							1	4.0	1	.87
Development and External Relations			1	2.17					1	.87
Engineering					1	3.13			1	.87
Executive Dean	1	8.33					1	4.0	2	1.74
Executive Vice President							1	4.0	1	.87
Facilities Management							1	4.0	1	.87
Facilities Planning	1	8.33	3	6.52	7	21.87	3	12.0	14	12.17
Independent of any office			1	2.17			1	4.0	2	1.74
Institutional Planning			2	4.35					2	1.74
Institutional Research/Studies	3	25.0	13	28.26	6	18.75	3	12.0	25	21.74
Office of Assistant Chancellor for Administrative Services							1	4.0	1	.87

APPENDIX F (continued)

Title	(1) 1,000 to 3,999 No.	%	(2) 4,000 to 9,999 No.	%	(3) 10,000 to 19,999 No.	%	(4) 20,000 or More No.	%	(5) Total No.	%
Office of Space Utilization					1	3.13	1	4.0	2	1.74
Physical Facilities			1	2.17					1	.87
Physical Planning					1	3.12			1	.87
Physical Plant	1	8.33	2	4.35	1	3.13			4	3.47
Planning and Analysis					1	3.12			1	.87
Planning and Development	1	8.33							1	.87
Planning and Studies							1	4.0	1	.87
Planning Office					1	3.13			1	.87
President			6	13.04	1	3.12	2	8.0	8	6.95
Provost			2	4.35					2	1.74
Registrar			1	2.17	1	3.13	1	4.0	3	2.61
Research and Development	1	8.33	1	2.17					2	1.74
Space Management					1	3.12			1	.87

APPENDIX F (continued)

Title	(1) 1,000 to 3,999 No.	%	(2) 4,000 to 9,999 No.	%	(3) 10,000 to 19,999 No.	%	(4) 20,000 or More No.	%	(5) Total No.	%
Vice President for Academic Affairs							1	4.0	1	.87
Vice President for Business Affairs			1	2.17	1	3.13			2	1.74
No Response			2	4.35					3	2.61
Total	12	99.98	46	99.97	32	100	25	100	115	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX G

TABLE V

ADMINISTRATIVE OFFICES TO WHICH RESPONDENTS' OFFICES REPORTED

	Size of Enrollment									
	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Assistant President for Administration			1	2.17					1	.87
Assistant to Vice President for Business and Finance					1	3.12			1	.87
Business Manager	1	8.33			1	3.13			2	1.74
Chancellor							2	8.00	2	1.74
Dean of Administration	1	8.33	1	2.17					2	1.74
Dean of Administrative Affairs			1	2.17					1	.87
Dean of Campus Facilities					1	3.12			1	.87
Development and Planning Office			1	2.17					1	.87

APPENDIX G (continued)

	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Director of Development					1	3.13			1	.87
Executive to the President	2	16.67	2	4.35	3	9.37	2	8.00	9	7.82
Executive Vice President			1	2.17			1	4.00	2	1.74
Executive Vice President for Administrative Operations							2	8.00	2	1.74
Office of Assistant Chancellor for Administrative Services							1	4.00	1	.87
President	7	58.34	19	41.30	5	15.63	6	24.00	37	32.17
Provost					4	12.50			4	3.48
Vice Chancellor and Dean of Faculties					1	3.12			1	.87
Vice President for Academic Affairs			3	6.52	4	12.50	5	20.00	12	10.43

APPENDIX G (continued)

	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Vice President for Administration and Affairs			1	2.17	1	3.13			2	1.74
Vice President for Administration and Finance			1	2.17					1	.87
Vice President for Administration and Management					1	3.12			1	.87
Vice President for Business Affairs			12	26.09	4	12.50	2	8.00	18	15.65
Vice President for Business and Administrative Services					2	6.25			2	1.74
Vice President for Institutional Studies							1	4.00	1	.87
Vice President for Research			1	2.17					1	.87
Vice President for Planning and Budgeting							1	4.00	1	.87
Vice President of Facilities Planning							1	4.00	1	.87

APPENDIX G (continued)

	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Vice President of Institutional Planning					1	3.13			1	.87
Vice President of Management and Planning					1	3.12			1	.87
Vice President of University Development					1	3.13	1	4.00	2	1.74
No Response	1	8.33	2	4.35					3	2.61
Total	12	100	46	99.97	32	100	25	100	115	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX H

TABLE VI

NUMBER OF FULL TIME SPACE ANALYSIS EMPLOYEES IN INDIVIDUAL INSTITUTIONS

Number of Employees	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
One	10	83.33	36	78.26	18	56.25	13	52.00	77	66.96
Two	2	16.67	5	10.87	10	31.32	5	20.00	22	19.13
Three			1	2.17	2	6.25	3	12.00	6	5.22
Four					2	6.25	1	4.00	3	2.61
More than Four							3	12.00	3	2.61
No Response			4	8.70					4	3.47
Total	12	100	46	100	32	100	25	100	115	100

NOTE: All percentages rounded to decimal places.

APPENDIX I

TABLE VII

DIVISION DESIGNATIONS OF RESPONDENTS

Job Division	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Faculty Status	3	25.00	12	26.09	5	15.63	1	4.00	21	18.26
Academic Administrative							1	4.00	1	.87
Administrative	9	75.00	28	60.87	20	62.50	20	80.00	77	66.96
Administrative Faculty					1	3.12	1	4.00	2	1.74
Career Staff					1	3.13			1	.87
Professional Service					1	3.12			1	.87
Staff Civil Service			5	10.87	4	12.50	2	8.00	11	9.56
No Response			1	2.17					1	.87
Total	12	100	46	100	32	100	25	100	115	100

NOTE: All percentages rounded to decimal places.

APPENDIX J

TABLE VIII

REPORTED SALARY RANGES AND RELATIONSHIP TO TIME IN SPACE ANALYSIS ACTIVITIES

	Size of Enrollment										
	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total		
Salary Range	No.	%	No.	%	No.	%	No.	%	No.	%	Experience
6,000 to 9,000	1	8.33	6	13.04	6	18.75			13	11.30	Less than 5 years
	1	8.33					1	4.00	2	1.74	5 years to 10 years
											10.5 years to 15 years
											More than 15.5 years
							Total		15	13.04	
9,000 to 12,000											Less than 5 years
	1	8.33	8	17.39	2	6.25	5	20.00	16	13.91	5 years to 10 years
			1	2.17					1	.87	10.5 years to 15 years
											More than 15.5 years
							Total		17	14.78	
12,000 to 15,000	2	16.67	9	19.57	7	21.87	4	16.00	22	19.13	Less than 5 years
	1	8.33	2	4.35	4	12.50	1	4.00	8	6.95	5 years to 10 years
											10.5 years to 15 years
							1	4.00	1	.87	More than 15.5 years
							Total		31	26.95	

APPENDIX J (continued)

Salary Range	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total		Experience
	No.	%	No.	%	No.	%	No.	%			
15,000 to 20,000	5	41.67	13	28.26	8	25.00	6	24.00	32	27.83	Less than 5 years
			3	6.52	2	6.25	1	4.00	6	5.22	5 years to 10 years
							2	8.00	2	1.74	10.5 years to 15 years
			1	2.17					1	.87	More than 15.5 years
							Total		41	35.66	
Above 20,000			3	6.52			1	4.00	4	3.48	Less than 5 years
	1	8.33			3	9.38	3	12.00	7	6.09	5 years to 10 years
											10.5 years to 15 years
											More than 15.5 years
							Total		11	9.57	
Total	12	99.99	46	99.99	32	100	25	100	115	100	

NOTE: All percentages rounded to decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX K

TABLE IX

HIGHEST LEVEL OF FORMAL EDUCATION ATTAINED BY RESPONDENTS

Level of Education	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
No Degree			3	6.52	2	6.25			5	4.35
Associate of Arts	1	8.33			1	3.13			2	1.74
Bachelor of Arts	1	8.33	5	10.87	4	12.50	5	20.00	15	13.04
Bachelor of Business Administration					1	3.12			1	.87
Bachelor of Fine Arts					1	3.13			1	.87
Bachelor of Science	4	33.33	7	15.22	9	28.12	2	8.00	22	19.13
Master of Arts	2	16.67	5	10.87	2	6.25	4	16.00	13	11.30
Master of Business Administration			1	2.17	1	3.13			2	1.74
Master of Science			7	15.22	6	18.75	8	32.00	21	18.26

APPENDIX K (continued)

Level of Education	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Master of Urban Planning							1	4.00	1	.87
Educational Doctorate	3	25.00	9	19.57	4	12.50	1	4.00	17	14.78
Juris Doctor							1	4.00	1	.87
Ph. D	1	8.33	6	13.04	1	3.12	3	12.00	11	9.57
No Response			3	6.52					3	2.61
Total	12	99.99	46	100	32	100	25	100	115	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX L

TABLE X

UNDERGRADUATE MAJORS OF RESPONDENTS

Undergraduate Major	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Agricultural Education			1	2.17					1	.87
Architecture	1	8.33	2	4.35	3	9.37			6	5.21
Business Administration	2	16.67	8	17.39	3	9.38	6	24.00	19	16.52
Cartography	1	8.33							1	.87
Ceramics					1	3.12			1	.87
Chemistry			1	2.17					1	.87
Design					1	3.13			1	.87
Economics			2	4.35	1	3.12	1	4.00	4	3.48
Education	3	25.00	7	15.22	6	18.75	3	12.00	19	16.52
English			1	2.17	1	3.13	1	4.00	3	2.61
Engineering	2	16.67	7	15.22	4	12.50	4	16.00	17	14.78
Fashion Design					1	3.12			1	.87

APPENDIX L (continued)

Undergraduate Major	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Forestry					1	3.13			1	.87
Geography			1	2.17			1	4.00	2	1.74
Government							1	4.00	1	.87
Greek			1	2.17					1	.87
History			2	4.35			1	4.00	3	2.61
Industrial Arts			1	2.17					1	.87
Industrial Education and Technology	1	8.33	2	4.35					3	2.61
Industrial Technology	1	8.33	2	4.35					3	2.61
International Affairs					1	3.12			1	.87
Latin							1	4.00	1	.87
Liberal Arts							1	4.00	1	.87
Liberal Arts and Business							1	4.00	1	.87
Mathematics			4	8.70	6	18.75	2	8.00	12	10.43
Mathematics and Science					1	3.13			1	.87

APPENDIX L (continued)

Undergraduate Major	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Music			1	2.17					1	.87
Political Science							1	4.00	1	.87
Political Science and Industrial Personnel Management					1	3.12			1	.87
Pre-Law			1	2.17					1	.87
Secretarial Science			1	2.17	1	3.13			2	1.74
Social Studies	1	8.33							1	.87
Urban Planning			1	2.17			1	4.00	2	1.74
Total	12	99.99	46	99.98	32	100	25	100	115	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX M

TABLE XI

COLLEGE LEVEL COURSES TAKEN SPECIFICALLY FOR ADDITIONAL JOB TRAINING

Course	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Administrative Management	6	15.00	18	15.93	13	17.57	8	14.04	45	15.85
Architecture	2	5.00			1	1.35			3	1.06
Business	5	12.50	9	7.96	6	8.11	6	10.53	26	9.16
Building Construction					1	1.35			1	.35
Cartography			1	.89					1	.35
Civil Engineering			1	.89					1	.35
College Planning			1	.89					1	.35
Computer Programming	6	15.00	17	15.04	17	22.97	9	15.79	49	17.25
Curriculum Development			1	.88					1	.35
Drafting/ Blueprint Reading	5	12.50	8	7.08	3	4.05	3	5.26	19	6.69

APPENDIX M (continued)

Course	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Economics					1	1.35			1	.35
Educational Administration			3	2.66	1	1.35			4	1.41
Education Research							1	1.75	1	.35
Higher Education Administration					1	1.35	2	3.51	3	1.06
Human Relations	4	10.00	12	10.62	7	9.46	6	10.53	29	10.21
Industrial Engineering							1	1.75	1	.35
Industrial Management			1	.88					1	.35
Mathematics	4	10.00	16	14.16	8	10.81	7	12.28	35	12.32
Planning					1	1.35			1	.35
Public Administration							1	1.75	1	.35
Statistics	8	20.00	23	20.35	12	16.22	12	21.05	55	19.37
Systems Analysis			1	.89					1	.35
Systems Design							1	1.75	1	.35

APPENDIX M (continued)

Course	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Urban Planning			1	.89	2	2.70			3	1.06
Total	40	100	113	100	74	99.99	57	99.99	284	99.99

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX N

TABLE XII

COLLEGE COURSES SPECIFICALLY RECOMMENDED TO IMPROVE JOB PERFORMANCE

Courses Recommended	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Accounting			1	.48					1	.21
Administrative Management	9	14.75	33	16.02	18	15.13	12	13.19	72	15.09
Architectural Design					1	.84			1	.21
Building Construction	1	1.64	1	.49					2	.42
Business, General	8	13.12	15	7.28	6	5.04	8	8.79	37	7.76
Business Machines					1	.84			1	.21
Computer Programming	10	16.39	36	17.48	31	26.05	15	16.48	92	19.29
Curriculum Development			1	.48					1	.21
Drafting/ Blueprint Reading	10	16.39	30	14.56	19	15.97	14	15.38	73	15.30
Economics			1	.49					1	.21

APPENDIX N (continued)

Courses Recommended	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Educational Administration			1	.48			1	1.10	2	.42
Facilities Design			1	.49					1	.21
Human Relations	8	13.12	20	9.71	12	10.08	11	12.09	51	10.69
Industrial Engineering							1	1.10	1	.21
Mathematics	5	8.20	25	12.14	10	8.40	11	12.09	51	10.69
Operations Research			1	.48					1	.21
Planning			1	.49	1	.84			2	.42
Report Writing					1	.84			1	.21
Statistics	10	16.39	38	18.45	18	15.13	17	18.68	83	17.40
Systems Analysis							1	1.10	1	.21
Typing					1	.84			1	.21
Urban Planning			1	.48					1	.21
Total	61	100	206	100	119	100	91	100	477	100

NOTE: All percentages rounded to two decimal places.

APPENDIX O

TABLE XIII

RECOMMENDED HIGHER EDUCATION MAJORS FOR EMPLOYEES PERFORMING SPACE ANALYSIS ACTIVITIES

Majors	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Accounting					1	3.12	2	8.00	3	2.61
Administrative Management			2	4.35	1	3.13	2	8.00	5	4.35
Architecture	3	25.00	7	15.22	2	6.25	2	8.00	14	12.17
Business Administration	1	8.33	7	15.22	5	15.63	3	12.00	16	13.91
Business Management	1	8.33			4	12.50	1	4.00	6	5.21
Civil Engineering	2	16.67	2	4.35					4	3.48
Community Planning	1	8.33							1	.87
Computer Science			1	2.17	2	6.25	1	4.00	4	3.48
Economics	1	8.33							1	.87
Educational Administration			2	4.35					2	1.74

APPENDIX O (continued)

Majors	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Engineering (Type not specified)	1	8.33	1	2.17	4	12.5			6	5.21
Environmental Design	1	8.33							1	.87
Geography			1	2.17					1	.87
Human Relations			1	2.17	1	3.12			2	1.74
Industrial Arts			1	2.17	1	3.13			2	1.74
Industrial Engineering			1	2.17			4	16.00	5	4.35
Industrial Management							1	4.00	1	.87
Industrial Technology			1	2.17					1	.87
Institutional Planning			1	2.17					1	.87
Liberal Arts							4	16.00	4	3.48
Mathematics			3	6.52	5	15.62	1	4.00	9	7.83
Mechanical Engineering					1	3.13			1	.87

APPENDIX O (continued)

Majors	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Planning	1	8.33			1	3.12			2	1.74
Production Management							1	4.00	1	.87
Psychology							1	4.00	1	.87
Public Administration					1	3.13	1	4.00	2	1.74
Research			1	2.17					1	.87
Statistics			1	2.17	1	3.12			2	1.74
Systems Analysis							1	4.00	1	.87
None Recommended			13	29.26	2	6.25			15	13.04
Total	12	99.98	46	99.97	32	100	25	100	115	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX P

TABLE XIV

RESPONSES TO ESTABLISHING A COLLEGE MAJOR OR MINOR IN THE FIELD OF SPACE ANALYSIS

Reaction	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Neither	6	50.00	19	41.30	19	59.37	20	80.00	64	55.65
Yes - Minor	4	33.33	20	43.48	10	31.25	4	16.00	38	33.04
Yes - Major	2	16.67	1	2.17	2	6.25			5	4.35
Yes - Major and Minor			3	6.52	1	3.13	1	4.00	5	4.35
No Response			3	6.52					3	2.61
Total	12	100	43	99.99	32	100	25	100	115	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX Q

TABLE XV

MAJOR JOB RESPONSIBILITY, SPACE PROJECTION

Involvement of Respondents	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Involved	9	75.00	38	82.61	29	90.62	22	88.00	98	85.22
Not Involved	3	25.00	8	17.39	3	9.38	3	12.00	17	14.78
Total	12	100	46	100	32	100	25	100	115	100
Range in Percent of Annual Workload	5.00 to 45.00		2.00 to 50.00		2.00 to 50.00		Combined Workload % 5.00 to 100		2.00 to 100	
Mode	20%		10%		10%		20%		10%	

NOTE: All percentages rounded to two decimal places.

APPENDIX Q

TABLE XVA

METHODS USED FOR SPACE PROJECTIONS

Space Projection Methods Used [3]	Size of Enrollment (1) 1,000 to 3,999 No.	%	(2) 4,000 to 9,999 No.	%	(3) 10,000 to 19,999 No.	%	(4) 20,000 or More No.	%	(5) Total No.	%
Local	2	22.22	16	42.10	10	34.48	6	27.27	34	34.69
State	4	44.44	10	26.31	7	24.14	2	9.09	23	23.47
State & Local			1	2.63			7	31.82	8	8.16
Bareither and Schillinger "Numeric Method"			6	15.79	9	31.03	6	27.27	21	21.43
R. P. Dober	2	22.22							2	2.04
Russell and Doi	1	11.11					1	4.55	2	2.04
State University of New York			2	5.26					2	2.04
Space Analysis Manuals (WICHE)			3	7.89	3	10.34			6	6.12
Total	9	99.99	38	99.98	29	99.99	22	100	98	99.99

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX Q (continued)

[3]A more complete description of the "Space Projection Methods" follows.

Local. A space projection method developed and used within the individual institution.

State. A space projection method developed by the state and used by its public institutions of higher education.

State and Local. A combination of both. In this arrangement the state for example might provide the enrollment projections and square footage standards for instructional space. The individual institution would perform all calculations in effort to determine its projected space needs.

Bareither and Schillinger, "Numeric Method". Bareither, Harlan D. and Schillinger, Jerry L., University Space Planning, University and Illinois Press, Chicago, Illinois, 1968.

R. P. Dober. Dober, Richard P., Campus Planning, Reinhold Publishing Company, 1963.

Russell and Doi. Russell, John Dale and Doi, James I., Manual For Studies of Space Utilization in Colleges and Universities, Ohio University Press, Athens, Ohio, 1957.

State University of New York, Office of Vice Chancellor for Campus Development, 194 Washington Avenue, Albany, New York 12210, 1970.

Space Analysis Manuals, Western Interstate Commission For Higher Education, Boulder, Colorado 80302, 1971.

APPENDIX R

TABLE XVI

MAJOR JOB RESPONSIBILITY, FACILITIES INVENTORY

Involvement of Respondents	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Involved	10	83.33	43	93.48	30	93/75	24	96.00	107	93.04
Not Involved	2	16.67	3	6.52	2	6.25	1	4.00	8	6.96
Total	12	100	46	100	32	100	25	100	115	100
Range in Percent of Annual Workload	2.00 to 15.00		5.00 to 75.00		2.00 to 80.00		5.00 to 50.00		Combined Workload Percent 2.00 to 80.00	
MODE	10 percent		5 percent		10 percent		10 percent		10 percent	

NOTE: All percentages rounded to two decimal places.

APPENDIX R

TABLE XVIA

METHODS USED FOR COMPILING FACILITIES INVENTORIES

Facilities Inventory Methods	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Local	2	20.00	3	6.98	4	13.33	9	37.50	18	16.82
State	6	60.00	10	23.25	12	40.00	4	16.67	32	29.91
State & Local Combination			1	2.33			2	8.33	3	2.80
Higher Education Facilities Classification Manual and Inventory Procedures Manual	1	10.00	22	51.16	14	46.66	9	37.50	46	42.99
University Space Accounting, By James Albers			4	9.30					4	3.73
University Space Planning, By Bariether and Schillinger	1	10.00	1	2.33					2	1.87

APPENDIX R (continued)

Facilities Inventory Methods	(1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Western Interstate Commission for Higher Education Manual			2	4.65					2	1.87
Total	10	100	43	100	30	99.99	24	100	107	100

NOTE: All percentages rounded to two decimal places. Failure of totals to equal 100 percent is due to mathematical error in rounding percentages.

APPENDIX S

TABLE XVII

MAJOR JOB RESPONSIBILITY, CLASSROOM AND LABORATORY UTILIZATION STUDY

Involvement of Respondents	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Involved	9	75.00	40	86.96	27	84.37	21	84.00	97	84.35
Not Involved	3	25.00	6	13.04	5	15.63	4	16.00	18	15.65
Total	12	100	46	100	32	100	25	100	115	100
Range in Percent of Annual Workload	2.00 to 50.00		2.00 to 40.00		1.00 to 45.00		1.00 to 50.00		Combined Workload Percent 1.00 to 50.00	
MODE	15 percent		10 percent		5 percent		10 percent		10 percent	

NOTE: All percentages rounded to two decimal places.

APPENDIX S (continued)

TABLE XVIIA

METHODS USED IN PERFORMING UTILIZATION STUDIES

Utilization Study Methods Used	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Local	1	11.11	15	37.50	11	40.74	9	42.86	36	37.11
State	7	77.78	14	35.00	11	40.74	7	33.33	39	40.21
State and Local Combination			1	2.50			2	9.52	3	3.09
Other*	1	11.11	10	25.00	5	18.52	3	14.29	19	19.59
Total	9	100	40	100	27	100	21	100	97	100

*Methods designated as "other" are:

1. Bareither, Harlan D. and Schillinger, Jerry L., University Space Planning, University of Illinois Press, Chicago, 1968.

2. Jamrich, John X., To Build or Not to Build, A Report From Educational Facilities Laboratories.

3. Russell, John Dale and Doi, James I., Manual For Studies of Space Utilization in Colleges and Universities, Ohio University, Press, Athens, Ohio, 1957.

APPENDIX S (continued)

4. Schwehr, B. J. and F. E., Procedures For Physical Facility and Utilization Studies, Wisconsin State University System.

5. Space Analysis Manuals, Western Interstate Commission For Higher Education, Boulder, Colorado 80302, 1971.

6. State University of New York, Office of Vice Chancellor for Campus Development, 194 Washington Avenue, Albany, New York 12210, 1970.

APPENDIX T

TABLE XVIII

MAJOR JOB RESPONSIBILITY, ASSIGNMENT OF NONINSTRUCTIONAL BUILDING SPACE (OFFICES, SECRETARIAL AND RECEPTION AREAS, LABORATORY STORAGE AREAS, AND CONFERENCE ROOMS)

	Size of Enrollment				
Involvement of Respondents	(1) 1,000 to 3,999	(2) 4,000 to 9,999	(3) 10,000 to 19,999	(4) 20,000 or More	(5) Total
	No. %	No. %	No. %	No. %	No. %
Involved	8 66.67	29 63.04	21 65.62	19 76.00	77 66.96
Not Involved	4 33.33	17 36.96	11 34.38	6 24.00	38 33.04
Total	12 100	46 100	32 100	25 100	115 100
Range in Percent of Annual Workload	5.00 to 35.00	2.00 to 25.00	1.00 to 50.00	3.00 to 90.00	Combined Workload Percent 1.00 to 90.00
MODE	5 percent	5 percent	10 percent	25 percent	10 percent

NOTE: All percentages rounded to two decimal places.

APPENDIX U

TABLE XIX

MAJOR JOB RESPONSIBILITY,
ADVISE ON REMODELING OF SPACE IN EXISTING BUILDINGS

Involvement of Respondents	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Involved	8	66.67	33	71.74	22	68.75	20	80.00	83	72.17
Not Involved	4	33.33	13	28.26	10	31.25	5	20.00	32	27.83
Total	12	100	46	100	32	100	25	100	115	100
Range in Percent of Annual Workload	2.00 to 25.00		1.00 to 25.00		1.00 to 30.00		1.00 to 30.00		1.00 to 30.00	
MODE	20 percent		5 percent		5 percent		5 percent		5 percent	

NOTE: All percentages rounded to two decimal places.

APPENDIX V

TABLE XX

MAJOR JOB RESPONSIBILITY, CLASSROOM SCHEDULING

Involvement of Respondents	Size of Enrollment (1) 1,000 to 3,999		(2) 4,000 to 9,999		(3) 10,000 to 19,999		(4) 20,000 or More		(5) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Involved	2	16.67	13	28.26	8	25.00	5	20.00	28	24.35
Not Involved	10	83.33	33	71.74	24	75.00	20	80.00	87	75.65
Total	12	100	46	100	32	100	25	100	115	100
Range in Percent of Annual Workload	5.00		2.00 to 50.00		10.00 to 40.00		10.00 to 30.00		2.00 to 50.00	
MODE	5 percent		10 percent		15 percent		15 percent		15 percent	

NOTE: All percentages rounded to two decimal places.

APPENDIX W

TABLE XXI

MAJOR JOB RESPONSIBILITY, PREPARATION OF LEGISLATIVE BUDGET REQUESTS

Calculate Interior Size of Buildings Requested	Size of Enrollment (A) 1,000 to 3,999		(B) 4,000 to 9,999		(C) 10,000 to 19,999		(D) 20,000 or More		(E) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Involved	7	58.33	28	60.87	23	71.87	18	72.00	74	64.35
Not Involved	5	41.67	18	39.13	9	28.13	7	28.00	41	35.65
Total	12	100	46	100	32	100	25	100	115	100

The following activities were also listed by respondents as being related to the preparation of budget/building requests.

Participants

A	Update Five Year Programs and Budgets.
B	Determine Building Rehabilitation and Modification Needs and Costs.
B, C, D	Prepare Justification Statements for Building Programs.
B, C, D	Direct the Preparation of Programs for all Building Requested
B, C, D	Prepare Cost Estimates for Proposed Buildings
B	Prepare Preliminary Designs for New Buildings
B, C	Prepare Fixed and Movable Equipment Budgets
B	Prepare Project Forms Required by State
C, D	Prepare Entire Budget Request
D	Prepare Operating Budget Request
D	Establish Priorities for Budget Requests
D	Serve as Advisor and Liaison to Building Program Committees.

NOTE: All percentages rounded to two decimal places.

APPENDIX X

TABLE XXII

JOB RESPONSIBILITIES IN ADDITION TO THOSE IN TABLES XV THROUGH XXI

Part I

Size of Enrollment

Involvement of Respondents	(A) 1,000 to 3,999		(B) 4,000 to 9,999		(C) 10,000 to 19,999		(D) 20,000 or More		(E) Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Involved	7	58.33	40	86.96	23	71.87	16	64.00	86	74.78
Not Involved	5	41.67	6	13.04	9	21.13	9	36.00	29	25.22
Total	12	100	46	100	32	100	25	100	115	100
Range in Percent of Annual Workload	2.50 to 50.00		5.00 to 70.00		2.00 to 45.00		5.00 to 50.00		Combined Workload Percent 2.00 to 70.00	
MODE	5 percent		10 percent		20 percent		5 percent		10 percent	

Part II

The following tasks were listed by respondents as being in addition to those in Tables XVI through XXII

Participants By Enrollment Level	
A, B, C, D	General Office Tasks Including Answering Questionnaires and Preparing Grant Requests.

APPENDIX X (continued)

A, B, C, D	Prepare Plans, Specifications, and Schedules for Campus Improvements.
A, B, C, D	Direct Plant Maintenance and Operation.
A, B, C	Direct Plant Security
A	Adult and Community Education
A, B, C	Construction Inspection and/or Coordination
A,	Public Relations
B,	Enrollment Projections
B,	Teaching
B, C, D	Statistical Analysis and Institutional Research
B,	Student Registration
B, C, D	Coordinate and/or Assist With Long-Range Campus Planning
B, C, D	Supervise Leased Land Holdings
B, C, D	Miscellaneous Presidential Projects
B, C,	Develop Annual Time Schedule
B,	Prepare Enrollment Report
B,	College Editor
B,	Consultant for Statewide Space Utilization Study
B,	College Senate
B, C, D	Evaluate and Review Drawings and Specifications on all New Buildings
B, C,	Coordinate Federal Programs
C, D,	Member of Space Management/Allocation Committee
C,	Summer School Director
C, D	Nonacademic Scheduling of Classrooms
C,	Order and Assign Room Furniture
D	Maintain Faculty Records
D	Committee Work on Higher Education Board and Federal Agencies.
D	Assist in Preparation of Western Interstate Commission for Higher Education (WICHE) Space Analysis Manuals

NOTE: All precentages rounded to two decimal places.