DOCUMENT RESUME

ED 090 823 HE 005 415

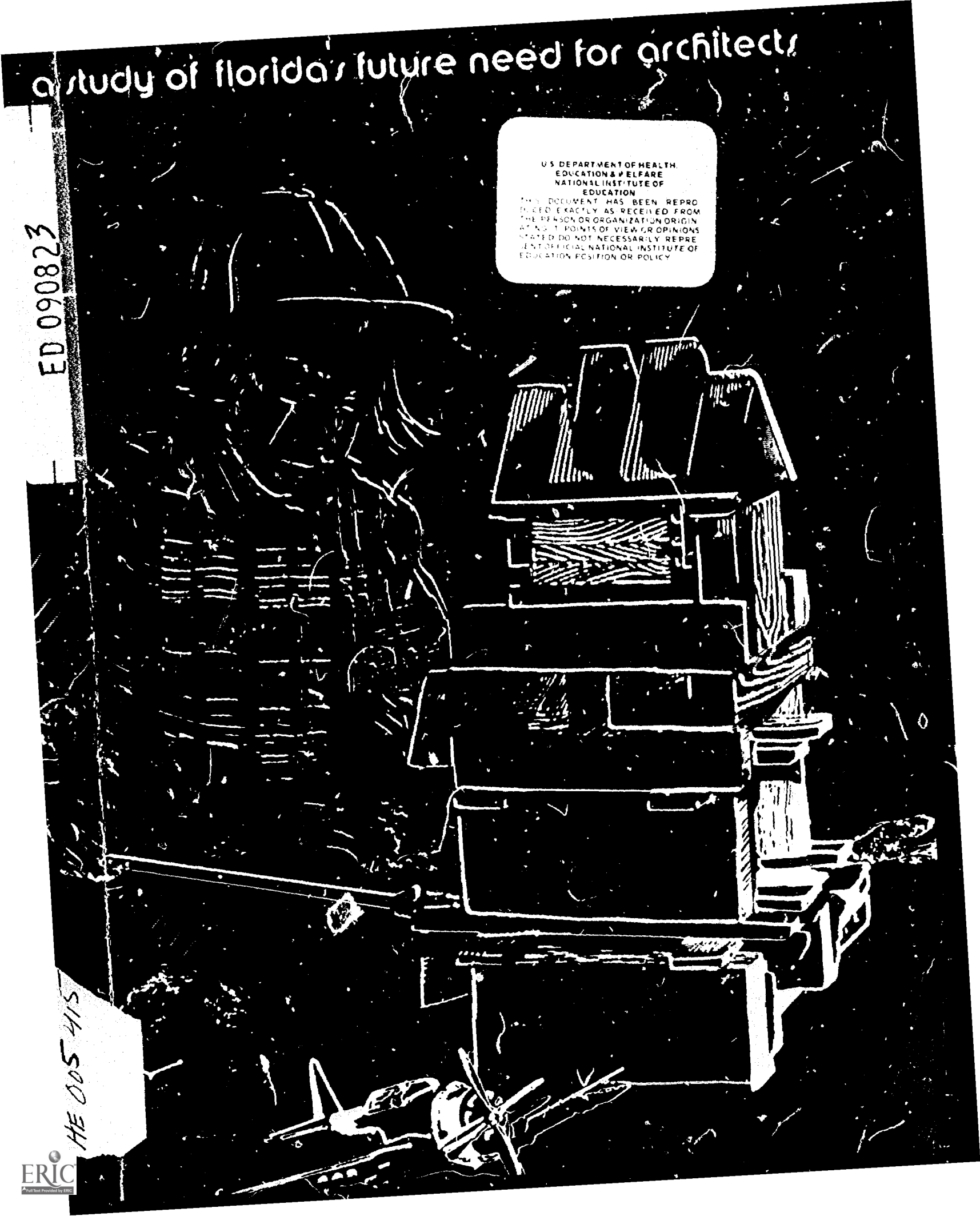
AUTHOR Mitchell, Bruce D.; Wittenberg, Dennis
TITLE A Study of Florida's Future Needs for Architects: 1973.
INSTITUTION State Univ. System of Florida, Tallahassee.
PUB DATE Mar 74
NOTE 154p.

EDRS PRICE MF-$0.75 HC-$7.80 PLUS POSTAGE
DESCRIPTORS *Architects; *Architectural Education; Architecture; Construction Industry; *Educational Demand; *Higher Education; Manpower Needs; Professional Education; State Universities; *Statewide Planning
IDENTIFIERS *Florida

ABSTRACT

During the past decade, Florida has become the fastest growing large state in the United States. This growth has resulted in a parallel increase in the demand for architectural services. The objective of this study was to employ several types of quantitative assessment of Florida's need for registered architects and then compare the need obtained with the projected number of architects who will be able to meet this need, given the current rate of increase in the number of architects being registered by the Florida Board of Architecture. Three types of assessment were used: assessment of registered architects to population; survey of all architects registered to practice in Florida; and consideration of expert opinion of educators and employers of architects. The conclusion reached is that the best way to increase the number of architects in Florida is to initiate an architect training program at one of Florida's state universities. Appendices include: the architect survey, observations based on findings of the survey, and the instrument used during campus visits to existing architectural training programs. (Author/PG)

a study of florida's future need for architects



U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

ED 090823
HE 005 415

ED 090823

A Study of Florida's Future Needs for Architects: 1973

by

Bruce Mitchell

Dennis Wittenberg

Academic Affairs

Florida Board of Regents

State University System of Florida

Tallahassee, Florida

March 1974

74-7

This public document was promulgated at an annual cost of $1050 for 600 copies, or $1.75 per copy, to inform the State University System, the Division of Community Colleges, private institutions of higher education, the State Board of Architecture, the architectural profession, and the public in general of the current and projected needs for professionally trained architects in Florida and the educational response necessary to meet these manpower requirements.

ARCHITECT STUDY COMMITTEE

Howard B. Bochiardy, AIA
Vice President
Reynolds, Smith, and Hills
Architects and Engineers
Chairman
Education Research Commission of
the Florida Association of the
American Institute of Architects
Orlando

Arnold F. Butt, AIA
Professor and Chairman
Department of Architecture
University of Florida
Gainesville

Herbert Coons, Jr.
Executive Secretary
Florida State Board of
Architecture
Tallahassee

*Edward Crain, AIA
Associate Professor
Department of Architecture
University of Florida
Gainesville
Former Chairman
Department of Architecture
Miami-Dade Community Campus
(South Campus)

James E. Garland, AIA
Commissioner of Education for
the Florida Association of the
American Institute of Architects
Chairman of the Board
Connell Associates
Architects and Engineers
Miami

Fotis N. Karousatos, AIA (Hon.)
Executive Director
Florida Association of the
American Institute of
Architects
Coral Gables

Richard Pryor, AIA
Vice President
Kemp, Bunch, and Jackson
Architects
Jacksonville

Ralph Warburton, AIA, AIP
Associate Dean
Architecture and Planning
Chairman
Department of Architecture
and Architectural Engineering
University of Miami
Coral Gables

*George Bedell
Director
Personnel and Faculty Relations
Florida Board of Regents/State
University System
Former Director
Humanities and Fine Arts
Florida Board of Regents/State
University System
Tallahassee

Lawrence Tanzi
Director
Humanities and Fine Arts
Florida Board of Regents/State
University System
Tallahassee

*Frank Juge
Associate Dean
College of Natural Sciences
Florida Technological University
Orlando
Former Director
Science and Engineering
Florida Board of Regents/
State University System

Bruce Mitchell
Director of Special Studies
Florida Board of Regents/
State University System
Tallahassee

Dennis Wittenberg
Research Assistant
Florida Board of Regents/
State University System
Tallahassee

*Present as well as past positions held at the beginning of the study are noted

ACKNOWLEDGMENTS

As director of this study, I would like to express appreciation to the many individuals who contributed toward the preparation of the final report. The members of the Architect Study Committee gave unselfishly of their valuable time and helpful advice. Their contributions include design of the questionnaire mailed to all of Florida's registered architects, editing of the several drafts of the report, provision of specific information about the architect's profession and his training, and provision of general advice and support throughout the study.

Appreciation goes to State University System Chancellor Robert B. Mautz and to Vice Chancellor for Academic Affairs Allan Tucker for their administrative leadership and advice throughout the study.

My thanks for staff assistance on the present study go particularly to Dennis Wittenberg and Guery Davis. Their imagination, insight, and effort were largely responsible for the assimilation and interpretation of the data. Actually, the report of this study would have been impossible without the outstanding efforts of Ms. Annie Rosier who meticulously and conscientiously provided the day-to-day, typing, filing, checking, and overall management of the mass of details involved in the project. All of her efforts are truly appreciated. Thanks also go to Jerry Bigham and Jack McGill for the massive data processing support they provided. Likewise, Lincoln Stone's imaginative cover design for the final report is greatly appreciated.

I am indebted to Henry Succop, Jr. and Goeffrey Lynch of Miami-Dade Community College for their efforts in providing much useful information

about the Architecture training programs offered at the two main campuses of their institution and also to Brock Hammacher who helped gather information for the study about the University of Florida program.

Finally, a debt, impossible to acknowledge individually, is owed to the over twelve hundred architects whose data, carefully recorded on the survey questionnaire, provided the very substance of this report. All these have helped; yet, any insufficiencies or inaccuracies of design or of execution are my responsibility.

Bruce D. Mitchell
Director of Special Projects
Florida Board of Regents

TABLE OF CONTENTS

FLORIDA ARCHITECT STUDY - COMPLETE DRAFT

I. INTRODUCTION

A. Need for a Study

During the past decade, Florida has become the fastest growing large state in the United States. It has surpassed Massachusetts during this time to become the ninth most populated state and is currently growing at a rate of over 6,000 new residents each week. This growth has resulted in a parallel increase in the demand for architectural services to design the homes, apartments, stores, schools, factories, office buildings, highways and bridges necessary to meet the needs of the state's swelling population. During this same time, however, the number of university-level architect training programs has not increased. Since 1957 there have been two such architect training programs; one at a state university and one at a private university. Although both of these programs have been expanded, the increased output in the form of graduate architects apparently has not been enough to keep up with the growing need for architects as expressed by design firms seeking to employ them. The result of this situation has been twofold. First, the state has come to depend increasingly on the services of out-of-state architects and on the importation of graduates from training programs in other states and, secondly, there has been increasing pressure to accommodate additional Florida students by either increasing the capacity of the two existing architect training programs within the state or by establishing another training program.

Upon request by representatives of the Architecture profession, the Chancellor of the State University System, with the approval of members of the Board of Regents, instructed his staff in the fall of 1972 to do a study of Florida's future need for architects. The study, to be done in cooperation

with the Florida Association of the American Institute of Architecture and the State Board of Architecture, was intended to help the State University System assess its role in the provision of architectural education through the next decade.

B. Interested Parties

The Florida Association of the American Institute of Architects, The Florida Board of Architecture, The National Council of Architecture Registration Boards, the Legislature, the Governor, the State University System and the Board of Regents, and the general public are all concerned with Florida's future need for architects and the state's ability to provide architectural education programs sufficient to meet its citizens' needs.

C. Primary Concerns of the Board of Regents and of the Chancellor

The Board of Regents and the Chancellor of the State University System have three basic concerns in the provision of architectural or other professional education. They are concerned with the provision of opportunities for qualified Florida resident students to matriculate in the higher education programs of their choice. They are further concerned that the higher education programs made available be of the highest quality possible within the funding available. Finally, they are concerned that the manpower needs of the state for trained professionals be at least minimally satisfied. It is to this latter concern that this study was specifically addressed.

D. Objective and Scope of this Study

The objective of the study was to employ several types of quantitative assessment of Florida's need for registered architects at least for the next few years and then compare the need obtained with the projected number of architects who will be available to meet this need, given the current rate of in-

crease in the number of architects being registered by the Florida Board of Architecture. The scope of this study was originally defined as determining whether or not the projected need for registered architects would be satisfied by the current rate of increase of registered architects in Florida. If the results indicated that the need for registered architects would not be satisfied, the study was to be expanded to include a consideration of the various alternatives available to the state to increase the supply of architects. The study was not intended as an advocate for any particular decision or action toward maintaining or modifying the current rate of increase in Florida's number of registered architects.

E. Methodology

Several types of assessment of the future needs for registered architects were utilized in this study. Consideration was first given to the expert opinions of a number of people involved in the education, registration, and employment of architects who have had experience with and are attuned to the architectural profession and the changing demands upon it.

Secondly, consideration was given to an assessment of the ratio of registered architects to population. The historical trend of this ratio was determined and projections were made of this trend into the future. The basic assumption with this method of assessment is that a projected decrease in the number of architects per population indicates a situation in which it can be expected that the future need for architects will not be satisfied.

Finally, there was the surveying of all architects registered to practice in Florida, with the rationale that the single greatest employer of future architects will be the architects who are currently in practice. This method was limited, however, by the fact that it does not include non-architects who also employ architects. The survey instrument used in this study was the re-

sult of the efforts of the State University System Architecture Study Committee which was composed of members of the Florida Association of the American Institute of Architects, the Executive Secretary for the Florida Board of Architecture, one representative from each of the two university-level architecture training programs and from the one community college-level program, and three members of the chancellor's staff.

II. REVIEW OF RELATED LITERATURE

A. The U.S. Bureau of Labor Statistics

A standard reference utilized by those seeking information about professions such as architecture is the Occupational Outlook Handbook, published periodically by the U.S. Bureau of Labor Statistics. The Handbook provides a description of the nature of the work of the profession; the places of employment; the training, other qualifications and advancement involved; the employment outlook; the earnings and working conditions; and sources of additional information about the profession.

The Occupational Outlook Handbook defines the nature of the architect work as follows:

> "Architects plan and design buildings and other structures that are safe, useful, and pleasant in appearance. Architects also work with other professionals, such as engineers, urban planners and landscape architects, to design cities and towns and plan and improve overall physical environments. When an architect is commissioned to design a building, he discusses with the client the purpose, requirements, and cost limitations, as well as preferences as to style and plan. Subsequently, the architect makes hundreds of decisions and considers not only the requirements of the building, but also local and State building codes, zoning laws, fire regulations, and other ordinances.
>
> The architect makes preliminary drawings of the structure and meets with the client to develop a final design. This design includes floor plans and the interior and exterior details of the building. The final design then is translated into working drawings, showing the exact dimensions of every part of the structure and the location of the plumbing, heating, electrical, air-conditioning, and other equipment. Consulting engineers usually prepare detailed drawings of the structural, plumbing, heating, and electrical work. Engineers' drawings are coordinated with the architect's working drawings, and specifications are prepared listing the construction materials to be used, the equipment, and in some cases, the furnishings.
>
> The architect then assists his client in selecting a building contractor and in negotiating the contract between client and contractor, and he acts as the client's advisor and representative in dealings with the contractor. As construction proceeds, the architect makes periodic visits to the construction site to see if the design is being followed, and that the materials specified in the contract are being used. The architect's work is not completed until the project is finished, all required tests are made, and

guarantees are received from the contractor.

Most self-employed architects plan and design a wide variety of structures, ranging from homes to churches, hospitals, office buildings, and airports. They also plan and design multibuilding complexes for urban renewal projects, college campuses, industrial parks, and new towns. Some architects specialize in one particular type of structure or project. When working on large scale projects or for large architectural firms, architects frequently specialize in one phase of the work, such as design, drafting, specification writing, or construction contract administration (insuring that a structure is built according to plans and specifications)."[1]

Concerning the employment outlook for architects, the Handbook has the following to say.

"The outlook is for continued rapid growth of the profession. Opportunities are expected to be favorable both for experienced architects and for new graduates.

A major factor contributing to this favorable outlook is the expected growth in the volume of nonresidential construction--the major area of work for architects. Moreover, the increasing size and complexity of modern nonresidential buildings, as well as the homeowners' growing awareness of the value of architects' services, are likely to bring about a greater demand for architectural services. Urban redevelopment and city and community planning projects, other growing areas of employment for architects, also are expected to increase considerably in the years ahead. In addition, expanding college enrollments will create a need for additional architects to teach architectural courses.

Besides those needed to fill new positions due to growth, deaths and retirements will account for about 1,000 new openings every year.

Along with the anticipated rise in demand for architects, an increase is expected in the number of architectural graduates. If this field follows the trend expected in all college graduations, the number of architectural degrees awarded each year during the 1970's should be considerably greater than the estimated 4900 awarded in 1970. However, many architectural graduates work in fields such as sales and administration in the building industry and do not enter the profession. Thus, those who choose to enter the field and become registered should have good employment opportunities through the 1970's."[2]

---

[1] U.S. Department of Labor, Bureau of Labor Statistics, Occupational Outlook Handbook (Washington, D.C.: Government Printing Office, 1972), pp. 216-217.

[2] Ibid., p. 218.

In a report entitled "Tomorrow's Manpower Needs", the U.S. Bureau of Labor reports that 33,000 architects were employed within the U.S.A. during 1970. The Bureau's projections indicated that 50,000 architects will be required to meet the nation's need by 1980, an increase of 52%.[3]

B. The Florida Association of the American Institute of Architects

Early in 1964 the Florida Architecture Association Board of Directors authorized an economic survey of the architecture profession in Florida. The basic purpose of the survey was to obtain data on the profession's financial health and its importance to Florida's economy. The questionnaires were distributed in February, 1965. Replies were received from 50.5% of Florida's resident registered architects.

The results of the survey indicated that, at that time, the average registered architect in Florida was 38 years old; earned $12,020 annually; and was the sole proprietor of an architecture firm (35.6%), an employee of an architecture firm (26.0%) or a partner in an architecture firm (22.7%).[4]

At the same time that registered architects were being surveyed, questionnaires were also sent to 1093 architecture firms in Florida. Responses were received from 374 of the firms. Among other things, the firms were asked to provide a breakdown of their employees. The following is a summary of the employees reported by 374 firms.[5]

Total Employees Reported	2,723
Architects	522
Engineers	259
Senior Draftsmen	501

---

[3]U.S. Department of Labor, Bureau of Labor Statistics, Tomorrow's Manpower Needs (Washington, D.C.: Government Printing Office, 1971), p. 18.

[4]The Florida Association of Architects of the American Institute of Architect, "The Profession in Florida - 1964," (Coral Gables, Florida, 1965).

[5]Ibid.

Junior Draftsmen	368
Secretaries	357
Accountants	74
Specification Writers	70

C. The Study Committee on Architectural Education

The Study Committee on Architectural Education, commissioned by the Florida Association of the American Institute of Architects released its report in early 1969. The Committee members had visited and studied the offerings of the architectural training programs at the University of Florida, the University of Miami, Miami-Dade Community College, and the Department of Urban and Regional Planning at Florida State University.

In its report, the study committee recommended that the programs in all four institutions be vigorously supported, and encouraged the expansion of junior college pre-architectural programs as exemplified by Miami-Dade Community College. The committee also felt that the continuing education aspect of the profession might well attempt to relate closer to the existing architectural education system.

In conclusion the committee "strongly felt that no new school of architecture should be established by statute, but only after hard study and research by professional planning groups."[6]

D. Florida Department of Commerce Manpower Study

The Florida Department of Commerce in November of 1970 released a study entitled "Florida Employment Directions, Industries and Occupations, 1968-1975". This study represented an attempt to make estimates of employment by occupation for the state, and to make projections of employment by industry and occupation through the mid 1970's.

---

[6]Florida Board of Regents Memo (Tallahassee, Fla.), May 26, 1969.

In the portion of this report dealing with contract construction it is pointed out that in spite of increased building costs and high interest rates, employment in contract construction from 1968 to 1975 is expected to increase by 6.3 percent compounded annually, amounting to the addition of approximately 100,000 new employees to the industry during this span of years.[7]

The authors of this report go on to explain:

> "Florida's construction boom cannot be attributed to increased population alone. The demand for middle income housing is much greater than the supply and the market for second homes should also continue to rise. Condominium and other types of multiple-dwelling units are becoming increasingly popular. Retirement communities should continue to expand by size and number during the coming years. Employment in the building of roads should remain at its relatively high level. The consumer demand for new construction is high; consequently, contract construction employment should expand to meet the demand."[8]

This study also included specific projections of the number of registered architects residing in Florida who would be needed as a result of the continued growth in the state's contract construction industry. In 1968 there were 1,480 architects employed in Florida. It was projected that there will be employment opportunities for 1,880 architects by 1975; an increase of 25%.[9] Between 1968 and 1975, 280 architects will be needed to replace those who leave the profession as a result of retirement, death, or other reasons. In addition, openings for 400 more architects will come into being as a result of the states expanding needs for architectural services. Thus a total of 680 new architects will be needed within Florida during this seven year period, or about 100 new architects a year.[10]

---

[7] Florida Department of Commerce, Florida Employment Directions: Industries and Occupations, 1968-1975 (Tallahassee, Florida: Office of Research and Planning, November, 1970), p. 11.

[8] Ibid., p. 11.

[9] Ibid., p. 60.

[10] Ibid., p. 72.

E. National Council of Architectural Registration Boards - Southern Conference Survey

During April of 1972, Arnold Butt and Brock Hamacher, Chairman and Co-chairman respectively of the Department of Architecture, University of Florida, reported on the results of several surveys conducted within the eleven states and territories (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and the Virgin Islands) comprising the Southern Conference of the National Council of Architectural Registration Boards. Those surveyed included fifth year architecture students, examinees for architectural registration, the employers of the examinees, state boards of architecture, and recently registered architects. Several findings resulting from these surveys seem pertinent.

Florida had the largest number of examinees (405) taking the Architectural Registration Examination during 1971. Texas was second with 295 examinees.[11] This is an indication of where the job opportunities for registered architects exist.

The percentages of those passing the examination varied widely by state. It was suggested that the states with the higher percentage of passes were the states with the higher number of architectural schools, i.e., Texas passing 46% and having at least six schools vs. Florida passing only 22% and having only two schools.[12] Texas had a high number of examinees from Texas schools while Florida had a greater number from out-of-state schools.

Of the recently registered architects (those who passed the registration exam in 1970) surveyed, 87% reported that they had been in a position to be selective about the jobs they took. They either got the job they wanted (62%)

---

[11]Arnold Butt and Brock Hamacher, "Report of the Southern Conference - National Council of Architecture Registration Boards Convention Workshop in Gainesville, Florida, November 11-12, 1971" (unpublished report, University of Florida, Gainesville, Florida, April, 1972), p. 2.

[12]Ibid., p. 2.

or selected from several offers. Only 13% took the first job that was available.[13] The conclusion which can be drawn from this is that demand for architectural graduates is high.

The employers of the 1971 examinees were also surveyed. Half of the them reported that they had been unable in the past two years to find enough qualified persons with architectural training available to serve the needs of their practices.[14]

F. National Survey

During December of 1972, the National Council of Architectural Registration Boards distributed a questionnaire to its member boards and asked that each person taking the exam fill it out. In answer to questions concerning the availability of jobs most graduates indicated that they relied on individual initiative in locating their first job; only 6.8 percent said they were helped by a placement service at school. A total of 54% found jobs were available after graduation, and 51% indicated they were selective about the positions they entered. Furthermore, 53.5% of the examinees reported having worked for three or more offices in three to four years.[15]

A portion of the questionnaire was to be filled out by the principal of the firm employing the examinee. In answer to a question concerned with whether enough young architects are being produced to fulfill the profession's responsibilities, 31% indicated that there are not enough qualified persons to fill the available jobs.[16]

---

[13] Ibid., p. 3.

[14] The Florida Architect,"State Board Exam Questionnaire", (Coral Gables, Florida, March and April, 1972), p. 5.

[15] E. G. Hamilton, "NCARB: Move to a Narrower Information Gap", AIA Journal (November, 1973), p. 28.

[16] Ibid., p. 29.

C. Summary

This review of recent literature concerning the manpower picture of the architectural profession yields several main points.

1. Both nationally and within the State of Florida the need for architects is seen as growing.

2. Within the Southern Region, Florida seems to attract a disproportionately large number of persons seeking to take the examination for registration within the state.

3. New architecture graduates, both national and within the southern region, have been able to be selective as to their first jobs.

4. Large numbers of principals of architecture firms, both nationally and within the southern region, report that there are not enough qualified persons with architectural training to fill available jobs.

III. 1973 FLORIDA ARCHITECT SURVEY

Questionnaires were mailed in April, 1973, to each of the architects registered by the Florida State Board of Architects to practice in Florida; approximately 3500 architects. By the end of June, 1973, 1246 completed answer sheets were returned and were included in the tabulations for this study. This represented approximately a 36% return and was considered representative of the population sampled.

The questionnaire (see Appendix I) was divided into two parts. The first section was designed to be answered by each registered architect. The instructions for the second part specified, however, that it was to be filled out only by one principal member of each architecture firm and that it concerned information about the firm.

The responses to this questionnaire were confidential in that architects and firms were not asked to report their names. They were asked to report only the zip code of their principal office.

The results of the survey are herein presented in the following two listings. In the first listing the results presented represent the total number of 1246 completed questionnaires sent to all architects registered to practice in Florida; those residing in Florida and elsewhere. The second listing includes the results for only those 665 architects reporting a Florida zip code.

For any question the sum of the distribution of responses may be more than or less than 1246 in the first listing or 665 in the second listing because of the varied number of responses to some of the questions. The number of responses is given for each choice in each question, as well as the percentage of response in parentheses.

In addition to these two listings of the results of the survey, six more are included in Appendix IV. In these listings the responses are reported by

the metropolitan service areas of the institutions comprising the State University System. These included the Miami-Fort Lauderdale-West Palm Beach metropolitan area; the Orlando-Daytona Beach metropolitan area; the Tampa-St. Petersburg-Clearwater-Bradenton-Sarasota metropolitan area; the Gainesville metropolitan area; the Jacksonville metropolitan area; and the Tallahassee, Panama City, and Pensacola metropolitan areas combined.

COMBINED FLORIDA AND NON-FLORIDA REGISTERED ARCHITECT RESULTS

1. Zip codes: This information will be used in subsequent analysis of the data.

2. Sex: (1) Male 1229 (98.6) (2) Female 17 (1.4)

3. Ethnic background:

(1) Caucasian 1190 (96) (2) Negroid 1 (.1) (3) Oriental 5 (.4)
(4) Spanish surname 38 (3) (5) Other 7 (.5)

4. Age:

(1) Under 20 5 (.4)
(2) 20 through 29 49 (4)
(3) 30 through 39 266 (21.4)
(4) 40 through 49 513 (41)
(5) 50 through 59 258 (21)
(6) 60 and above 151 (12.2)

5. What is the highest level of education you have attained at this time?

(1) High school or less 29 (2)
(2) 1 year of less of college 23 (2)
(3) 2 to 3 years of college (including two year degree) 64 (5)
(4) 4 or more years of college (no degree) 78 (6)
(5) Bachelor's degree 778 (63)
(6) Graduate work without advanced degree 117 (9)
(7) Master's degree 146 (12)
(8) Doctorate 7 (1)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum 204 (18)
(2) 5-year architectural school curriculum 770 (67)
(3) Some other architectural school curriculum 59 (5)
(4) Business or related fields 20 (2)
(5) Engineering 45 (4)
(6) Interior design 5 (.4)
(7) Landscape Architecture 3 (.3)
(8) Planning (urban and/or regional) 11 (1)
(9) Other 25 (2.3)

7. If you also have a master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	21 (10)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two year Master's program	13 (6)
(3) Combined, single school, Bachelor's/Master's architectural curriculum in any other combination	20 (9)
(4) Architecture, but not from a combined program	92 (44)
(5) Business or related fields	10 (5)
(6) Engineering	10 (5)
(7) Interior Design	2 (1)
(8) Landscape Architecture	4 (2)
(9) Planning (urban and/or regional)	20 (9)
(10) Other	18 (9)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Junior College	6 (.5)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	278 (23.3)	(5) Other (Out of Florida)	789 (66.2)
(3) University of Miami	20 (2)	(6) None	99 (8)

9. With what type of organization are you principally affiliated? Check one number of your primary activity.

(1) Architectural firm	891 (72)	(7) Developer	31 (16)
(2) Engineering firm	3 (0)	(8) Business	10 (1)
(3) Contractor	9 (1)	(9) Planning firm	7 (1)
(4) Landscape architectural firm	2 (0)	(10) Educational Institution	28 (2)
(5) Government	32 (3)	(11) Other	23 (2)
(6) Architectural-engineering firm	204 (16)		

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	460 (40)	(4) Individual practice-corporation	47 (4)
(2) Partnership	236 (20)	(5) Partnership-corporation	84 (7)
(3) Corporation	331 (29)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	153 (20)	(6) Business	36 (5)
(2) Architectural-engineering firm	109 (15)	(7) Landscape architectural firm	6 (1)
(3) Engineering firm	33 (4)	(8) Planning firm	135 (18)
(4) Developer	162 (22)	(9) Government	12 (2)
(5) Contractor	26 (4)	(10) Educational institution	27 (4)
		(11) Other	53 (7)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	524 (43)	(4) Officer	197 (16)
(2) Partner	251 (21)	(5) Employee only	159 (13)
(3) Corporate director	77 (6)	(6) Faculty only	13 (1)

13. Mark the special area(s) which you are primarily engaged. Percentage is based on 1246 responding)

(1) Administration	959 (77)	(6) Contract drawings	575 (46)
(2) Contact and business promotion	770 (62)	(7) Specifications	555 (45)
(3) Feasibility	502 (40)	(8) Estimating	306 (25)
(4) Programming	459 (37)	(9) Construction observation	554 (45)
(5) Design	921 (74)	(10) Other	169 (14)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	188 (15)
(2) 6-10 years	203 (17)
(3) 11-15 years	223 (18)
(4) Over 15 years	615 (50)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	487 (39)
(2) 6-10 years	252 (21)
(3) 11-15 years	199 (16)
(4) Over 15 years	297 (24)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	81 (7)	(4) $20,001-30,000	328 (27)
(2) $10,000-15,000	134 (11)	(5) $30,001-50,000	281 (23)
(3) $15,001-20,000	190 (16)	(6) Above $50,000	188 (16)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 682 (56) (2) No 535 (44)

18. What is your preference for main topics of courses? Check one number for each topic. (Percentage is based on 682 responding "Yes" to number 17)

	Would probably take	Might take	Would probably not take
A. Computer applications	146 (21)	212 (31)	265 (40)
B. Construction technology	189 (28)	256 (38)	168 (25)

		Would probably take	Might take	Would probably not take
C.	Housing financing and development	234 (34)	210 (31)	175 (26)
D.	Interior Design	82 (12)	165 (24)	341 (50)
E.	Management of architect's office	254 (37)	191 (28)	163 (24)
F.	Materials and new applications	259 (38)	223 (33)	136 (20)
G.	Mechanical/Electrical building systems	105 (15)	206 (30)	291 (43)
H.	Site design and planning	258 (38)	195 (29)	159 (23)
I.	Urban regional planning	254 (37)	186 (27)	185 (27)
J.	Urban design	211 (31)	197 (29)	198 (29)
K.	Other	127 (19)	178 (26)	145 (21)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule. (Percentage is based on 682 responding "Yes" to number 17)

		Would probably Attend	Might Attend	Would probably Not Attend
A.	2 evenings per week (7:00 - 10:00)	187 (27)	164 (24)	244 (36)
B.	2 evenings per week (4:00 - 6:00)	80 (12)	142 (21)	356 (52)
C.	1 evening a week (7:00 - 10:00)	383 (56)	145 (21)	87 (13)
D.	1 evening a week (4:00 - 6:00)	175 (26)	153 (22)	262 (38)
E.	Saturday (9:00 a.m. - 12:00 or all day)	129 (19)	133 (20)	327 (48)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 157 (22) (2) No 550 (78)

21. Are you interested in obtaining academic credits?

(1) Yes 216 (31) (2) No 488 (69)

22. Are you interested in obtaining an advanced degree in: (Percentage is based on 682 responding "Yes" to number 17)

(1) Architecture 98 (14)
(2) Architectural engineering 25 (4)
(3) Landscape architecture 0 (0)
(4) Urban design 0 (0)
(5) Urban and regional planning 0 (0)
(6) Other 0 (0)
(7) None 0 (0)

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	458 (44)	(4) Individual ownership-corporation	48 (5)
(2) Partnership	205 (20)		
(3) Corporation	260 (25)	(5) Partnership-corporation	61 (6)

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	438 (43)	(6) 26-30	26 (3)
(2) 6-10	216 (21)	(7) 31-40	31 (3)
(3) 11-15	101 (10)	(8) 41-50	21 (2)
(4) 16-20	63 (6)	(9) 51 and above	91 (9)
(5) 21-25	44 (4)		

25. How many of each of the following types of individuals are in the firm? Check one number for each type. (Reported only in percentages, based on number responding to each type)

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	6	61	18	7	4	2	1	1
B. Registered engineers	70	18	5	2	1	1	1	3
C. Graduate architects (not registered)	40	39	11	5	3	1	1	1
D. Interior designers	65	31	2	1	1	0	0	0
E. Landscape architects	86	11	2	1	0	0	0	0
F. Senior draftsmen	24	53	12	6	2	1	1	2
G. Junior draftsmen	29	47	13	5	2	1	1	2
H. Planners	58	37	4	1	0	0	0	0
I. Specification writers	43	52	3	1	0	0	0	0
J. Estimators	61	36	3	1	0	0	0	0
K. Construction administrators	53	36	6	2	1	0	0	1
L. Delineators	61	35	3	0	0	0	0	0
M. Other architectural technicians	72	20	5	1	0	0	0	1
N. Engineering technicians	77	14	4	1	1	1	0	2
All others (clerical, accounting, maintenance, etc.)	18	57	11	6	2	1	1	3

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up through $1,000,000	168 (17)	(4) $20,000,001 - 60,000,000	125 (12)
(2) $1,000,001 - 5,000,000	305 (30)	(5) Over $60,000,000	77 (7)
(3) $5,000,001 - 20,000,000	345 (34)		

27. How many years has your firm been established?

(1) Up through 5	284 (27)	(4) 16-20	135 (13)
(2) 6-10	168 (16)	(5) 21 or more	263 (25)
(3) 11-15	189 (18)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item

		Yes	No
A.	Office buildings	751 (79)	200 (21)
B.	Financial institutions	355 (40)	540 (60)
C.	Commercial	802 (84)	157 (16)
D.	Religious	388 (43)	516 (57)
E.	Industrial	465 (51)	441 (49)
F.	Multi-family residential	727 (77)	218 (23)
G.	Single-family residential	429 (48)	467 (52)
H.	Educational	503 (55)	417 (45)
I.	Recreational	406 (46)	474 (54)
J.	Hospital/Medical	371 (42)	520 (58)
K.	Other	316 (39)	505 (61)
L.	Planned unit developments	370 (43)	497 (57)
M.	Transportation	116 (14)	718 (86)

29. Indicated your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	151 (15)	(5) Increase 10%	111 (11)
(2) Decrease 10%	24 (2)	(6) Increase 11% to 25%	240 (24)
(3) Decrease 11% to 25%	39 (4)	(7) Increase 26% to 50%	256 (25)
(4) Decrease more than 25%	26 (3)	(8) Increase over 50%	166 (16)

30. What do you think will be the change in the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

		Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A.	Within next 3 years	46 (5)	268 (27)	533 (53)	115 (11)	17 (2)	26 (3)
B.	Within next 5 years	36 (4)	244 (24)	361 (39)	203 (22)	67 (7)	37 (4)
C.	Within next 10 years	42 (5)	222 (24)	251 (28)	188 (21)	103 (11)	106 (12)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 431 (43)	(2) No 579 (57)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	32	51	14	2	0	0	0
B. Registered engineers	69	23	4	2	1	0	0
C. Graduate architects (not registered)	16	57	21	5	1	0	0
D. Interior designers	80	18	1	0	0	0	0
E. Landscape	87	9	2	1	0	0	0
F. Draftsmen	9	42	36	10	3	0	1
G. Planners	72	25	3	0	0	0	0
H. Specification writers	68	31	2	0	0	0	0
I. Estimators	84	15	1	0	0	0	0
J. Construction administrators	74	23	2	0	0	0	0
K. Delineators	71	28	1	0	0	0	0
L. Other architectural technicians	72	19	7	1	1	0	0
M. Ingineering technicians	79	15	4	1	1	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	136(15)	370(41)	249(28)	67(7)	77(9)
B. Building equipment and construction	44(5)	225(25)	323(36)	211(24)	90(10)
C. Structural design	32(4)	185(21)	319(36)	217(24)	137(15)
D. Drafting and delineation	121(13)	346(38)	257(29)	105(12)	73(8)
E. Specifications and contract documents	37(4)	153(17)	237(27)	309(35)	150(17)
F. Computer technology	16(2)	71(8)	108(13)	113(13)	550(64)
G. Meeting and getting along with people, including clients	101(11)	370(42)	258(29)	56(6)	102(16)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architects?

(1) 0 207 (22)
(2) 1 269 (28)
(3) 2 297 (32)
(4) 3 125 (13)
(5) 4 28 (4)
(6) More than 4 17 (2)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 740 (74)
(2) No 262 (26)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	269 (29)	(4) 3	107 (12)
(2) 1	287 (31)	(5) 4	23 (3)
(3) 2	228 (24)	(6) More than 4	19 (2)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 647 (65) (2) No 349 (35)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	590 (65)	(4) 3	41 (5)
(2) 1	163 (18)	(5) 4	19 (2)
(3) 2	80 (9)	(6) More than 4	20 (2)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 407 (41) (2) No 583 (59)

40. What are the starting salaries currently being paid to:

	Under $6,000	$6,001- $8,000	$8,001- $10,000	$10,001- $12,500	$12,501- $15,000	Above $15,000
A. Registered architects	4(0)	21(2)	75(9)	244(28)	350(39)	194(22)
B. Graduate architects (not registered)	10(1)	140(16)	346(39)	266(30)	108(12)	11(1)
C. Senior draftsmen	6(1)	77(9)	311(35)	336(38)	143(16)	19(2)
D. Intermediate draftsmen	49(6)	342(40)	335(40)	107(13)	13(2)	0(0)
E. Junior college trained architectural technicians	189(28)	395(54)	120(17)	23(3)	1(0)	0(0)
F. Vocational-technical trained architectural	306(44)	325(47)	52(8)	13(2)	1(0)	0(0)
G. High school trained architectural technicians	541(81)	112(17)	8(1)	7(1)	1(0)	0(0)

RESIDENT FLORIDA REGISTERED ARCHITECTS RESULTS

1. Zip codes: This information will be used in subsequent analysis of the data

2. Sex: (1) Male 651 (98) (2) Female 14 (2)

3. Ethnic background:

(1) Caucasian 626 (94) (2) Negroid 0 (0) (3) Oriental 3 (.5)
(4) Spanish surname 32 (5) (5) Other 2 (.5)

4. Age:

(1) Under 20 1 (0)
(2) 20 through 29 38 (6)
(3) 30 through 39 173 (26)
(4) 40 through 49 274 (41)
(5) 50 through 59 116 (18)
(6) 60 and above 62 (9)

5. What is the highest level of education you have attained at this time?

(1) High school or less	18 (3)
(2) 1 year of less of college	14 (2)
(3) 2 to 3 years of college (including two year degree)	38 (6)
(4) 4 or more years of college (no degree)	45 (7)
(5) Bachelor's degree	423 (63)
(6) Graduate work without advanced degree	59 (9)
(7) Master's degree	63 (9)
(8) Doctorate	5 (1)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum	80 (13)
(2) 5-year architectural school curriculum	436 (73)
(3) Some other architectural school curriculum	30 (5)
(4) Business or related fields	9 (2)
(5) Engineering	22 (4)
(6) Interior design	2 (.3)
(7) Landscape Architecture	1 (.2)
(8) Planning (urban and/or regional)	4 (.5)
(9) Other	13 (.2)

7. If you also have a master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	12 (13)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two year Master's program	8 (9)
(3) Combined, single school, Bachelor's/Master's architectural curriculum in any other combination	9 (10)
(4) Architecture, but not from a combined program	37 (39)
(5) Business or related fields	6 (6)
(6) Engineering	3 (3)
(7) Interior Design	1 (1)
(8) Landscape Architecture	2 (2)
(9) Planning (urban and/or regional)	7 (7)
(10) Other	9 (10)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Junior College	5 (1)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	244 (38)	(5) Other (Out of Florida)	318 (49)
(3) University of Miami	20 (3)	(6) None	55 (9)

9. With what type of organization are you principally affiliated? Check one number of your primary activity.

(1) Architectural firm	482 (73)	(7) Developer	20 (3)
(2) Engineering firm	1 (0)	(8) Business	5 (1)
(3) Contractor	6 (1)	(9) Planning firm	1 (0)
(4) Landscape architectural firm	0 (0)	(10) Educational Institution	19 (3)
(5) Government	20 (3)	(11) Other	12 (2)
(6) Architectural-engineering firm	93 (14)		

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	271 (44)	(4) Individual practice-corporation	25 (4)
(2) Partnership	113 (19)	(5) Partnership-corporation	44 (7)
(3) Corporation	158 (26)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	90 (21)	(6) Business	19 (4)
(2) Architectural-engineering firm	48 (11)	(7) Landscape architectural firm	3 (1)
(3) Engineering firm	20 (5)	(8) Planning firm	74 (18)
(4) Developer	99 (23)	(9) Government	8 (2)
(5) Contractor	15 (4)	(10) Educational institution	16 (4)
		(11) Other	28 (7)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	285 (44)	(4) Officer	99 (15)
(2) Partner	119 (18)	(5) Employee only	105 (16)
(3) Corporate director	35 (6)	(6) Faculty only	8 (1)

13. Mark the special area(s) which you are primarily engaged. Percentage is based on 665 responding)

(1) Administration	491 (74)	(6) Contract drawings	353 (53)
(2) Contact and business promotion	380 (57)	(7) Specifications	320 (48)
(3) Feasibility	268 (40)	(8) Estimating	180 (27)
(4) Programming	255 (38)	(9) Construction observation	315 (47)
(5) Design	500 (75)	(10) Other	98 (15)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	143 (22)
(2) 6-10 years	132 (20)
(3) 11-15 years	116 (18)
(4) Over 15 years	265 (40)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	187 (28)
(2) 6-10 years	147 (22)
(3) 11-15 years	117 (18)
(4) Over 15 years	208 (32)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	54 (8)	(4) $20,001-30,000	171 (27)
(2) $10,000-15,000	94 (14)	(5) $30,001-50,000	121 (19)
(3) $15,001-20,000	128 (20)	(6) Above $50,000	76 (12)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 424 (65) (2) No 229 (35)

18. What is your preference for main topics of courses? Check one number for each topic. (Percentage is based on 424 responding "Yes" to number 17)

	Would probably take	Might take	Would probably not take
A. Computer applications	89 (21)	122 (29)	176 (42)
B. Construction technology	120 (28)	170 (40)	95 (22)

		Would probably take	Might take	Would probably not take
C.	Housing financing and development	146 (34)	139 (33)	99 (23)
D.	Interior Design	53 (13)	112 (26)	202 (48)
E.	Management of architect's office	159 (38)	121 (29)	100 (24)
F.	Materials and new applications	179 (42)	133 (31)	78 (18)
G.	Mechanical/Electrical building systems	75 (18)	133 (31)	178 (41)
H.	Site design and planning	176 (42)	121 (29)	88 (21)
I.	Urban regional planning	167 (39)	122 (29)	102 (24)
J.	Urban design	141 (33)	127 (30)	108 (25)
K.	Other	80 (19)	120 (28)	82 (19)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule. (Percentage is based on 424 responding "Yes" to number 17)

		Would probably Attend	Might Attend	Would probably Not Attend
A.	2 evenings per week (7:00 - 10:00)	129 (30)	104 (25)	142 (33)
B.	2 evenings per week (4:00 - 6:00)	53 (13)	102 (24)	210 (50)
C.	1 evening a week (7:00 - 10:00)	266 (63)	94 (22)	34 (8)
D.	1 evening a week (4:00 - 6:00)	125 (29)	94 (22)	159 (38)
E.	Saturday (9:00 a.m. - 12:00 or all day)	96 (23)	85 (20)	197 (46)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 97 (22) (2) No 341 (78)

21. Are you interested in obtaining academic credits?

(1) Yes 155 (35) (2) No 282 (65)

22. Are you interested in obtaining an advanced degree in: (Percentage is based on 424 responding "Yes" to number 17)

(1) Architecture	71 (17)	(5) Urban and regional planning	0 (0)
(2) Architectural engineering	14 (3)	(6) Other	0 (0)
(3) Landscape architecture	0 (0)	(7) None	0 (0)
(4) Urban design	0 (0)		

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	267 (53)	(4) Individual ownership-corporation	23 (4)
(2) Partnership	89 (18)		
(3) Corporation	100 (20)	(5) Partnership-corporation	27 (5)

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	271 (54)	(6) 26-30	5 (1)
(2) 6-10	103 (20)	(7) 31-40	9 (2)
(3) 11-15	44 (9)	(8) 41-50	6 (1)
(4) 16-20	25 (5)	(9) 51 and above	26 (5)
(5) 21-25	15 (3)		

25. How many of each of the following types of individuals are in the firm? Check one number for each type. (Reported only in percentages, based on number responding to each type)

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	8	71	14	4	1	1	1	1
B. Registered engineers	79	13	5	2	0	0	0	0
C. Graduate architects (not registered)	50	39	7	3	1	0	0	0
D. Interior designers	76	23	1	0	0	0	0	0
E. Landscape architects	88	11	1	0	0	0	0	0
F. Senior draftsmen	31	54	8	4	1	1	1	1
G. Junior draftsmen	35	50	10	3	1	1	0	0
H. Planners	65	31	4	0	0	0	0	0
I. Specification writers	55	43	2	0	0	0	0	0
J. Estimators	68	30	2	0	0	0	0	0
K. Construction administrators	64	30	4	2	0	0	0	0
L. Delineators	68	30	2	0	0	0	0	0
M. Other architectural technicians	78	17	4	1	0	0	0	0
N. Engineering technicians	81	14	3	1	1	0	0	0
All others (clerical, accounting, maintenance, etc.)	24	59	9	4	1	0	1	2

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up through $1,000,000	103 (21)	(4) $20,000,001 - 60,000,000	65 (13)
(2) $1,000,001 - 5,000,000	157 (32)	(5) Over $60,000,000	20 (4)
(3) $5,000,001 - 20,000,000	152 (30)		

27. How many years has your firm been established?

(1) Up through 5	189 (37)	(4) 16-20	53 (10)
(2) 6-10	83 (17)	(5) 21 or more	97 (19)
(3) 11-15	83 (17)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item

	Yes	No
A. Office buildings	379 (81)	91 (19)
B. Financial institutions	153 (35)	287 (65)
C. Commercial	376 (80)	92 (20)
D. Religious	181 (41)	263 (59)
E. Industrial	193 (43)	253 (57)
F. Multi-family residential	381 (81)	90 (19)
G. Single-family residential	268 (59)	183 (41)
H. Educational	215 (48)	236 (52)
I. Recreational	172 (40)	264 (60)
J. Hospital/Medical	144 (33)	289 (67)
K. Other	140 (35)	262 (65)
L. Planned unit developments	188 (44)	241 (56)
M. Transportation	50 (12)	369 (88)

29. Indicated your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	80 (16)	(5) Increase 10%	46 (9)
(2) Decrease 10%	14 (3)	(6) Increase 11% to 25%	111 (23)
(3) Decrease 11% to 25%	12 (2)	(7) Increase 26% to 50%	125 (26)
(4) Decrease more than 25%	7 (1)	(8) Increase over 50%	96 (20)

30. What do you think will be the change in the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	19 (4)	130 (27)	275 (56)	50 (10)	7 (1)	8 (2)
B. Within next 5 years	13 (3)	112 (25)	186 (41)	104 (23)	24 (5)	13 (3)
C. Within next 10 years	21 (5)	112 (25)	125 (28)	94 (21)	53 (12)	42 (9)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 137 (28) (2) No 359 (72)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	36	52	11	1	0	0	0
B. Registered engineers	72	22	4	2	0	0	0
C. Graduate architects (not registered)	16	64	16	4	0	0	0
D. Interior designers	82	18	0	0	0	0	0
E. Landscape	88	9	3	0	0	0	0
F. Draftsmen	6	44	38	9	2	0	1
G. Planners	71	26	0	0	0	0	0
H. Specification writers	70	29	1	0	0	0	0
I. Estimators	86	14	0	0	0	0	0
J. Construction administrators	77	21	1	1	0	0	0
K. Delineators	67	32	1	0	0	0	0
L. Other architectural technicians	71	22	6	0	1	0	0
M. Ingineering technicians	80	15	3	1	1	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	56(13)	156(37)	114(27)	41(10)	53(13)
B. Building equipment and construction	18(4)	88(21)	165(40)	87(21)	58(14)
C. Structural design	11(2)	73(18)	142(34)	106(26)	82(20)
D. Drafting and delineation	54(13)	144(34)	129(31)	44(10)	51(12)
E. Specifications and contract documents	14(3)	63(15)	107(26)	144(35)	85(21)
F. Computer technology	6(2)	21(5)	49(12)	46(11)	281(70)
G. Meeting and getting along with people, including clients	37(9)	163(40)	121(29)	23(6)	68(16)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architects?

(1) 0 83 (18)
(2) 1 132 (29)
(3) 2 155 (34)
(4) 3 70 (15)
(5) 4 8 (2)
(6) More than 4 10 (2)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 352 (72)
(2) No 135 (28)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	122 (27)	(4) 3	67 (15)
(2) 1	136 (30)	(5) 4	10 (2)
(3) 2	106 (24)	(6) More than 4	9 (2)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 303 (63) (2) No 178 (37)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	273 (62)	(4) 3	24 (6)
(2) 1	81 (18)	(5) 4	14 (3)
(3) 2	40 (9)	(6) More than 4	9 (2)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 199 (42) (2) No 280 (58)

40. What are the starting salaries currently being paid to:

	Under $6,000	$6,001- $8,000	$8,001- $10,000	$10,001- $12,500	$12,501- $15,000	Above $15,000
A. Registered architects	1(0)	11(3)	36(9)	103(25)	177(42)	90(21)
B. Graduate architects (not registered)	5(1)	58(14)	162(39)	126(31)	57(14)	4(1)
C. Senior draftsmen	2(0)	34(8)	144(34)	173(40)	70(16)	8(2)
D. Intermediate draftsmen	24(6)	163(40)	158(39)	55(14)	6(1)	0(0)
E. Junior college trained architectural technicians	100(28)	197(55)	55(15)	8(2)	1(0)	0(0)
F. Vocational-technical trained architectural	156(45)	166(48)	20(6)	4(1)	0(0)	0(0)
G. High school trained architectural technicians	275(83)	50(15)	2(1)	2(1)	0(0)	0(0)

Analysis of the Results of the 1973 Survey of Florida Architects

A. The Status of the Florida Architect in 1973

The responses of architects with their principal office located in Florida yield a profile of the registered architect in Florida during 1973. The typical Florida architect is male (98%), Caucasian (94%) and forty years or older in age (68%).

He has at least a Bachelor's degree (82%) which he obtained upon completion of a 5-year architectural school curriculum (73%) at an out-of-state school (49%) or at the University of Florida (38%).

He is principally affiliated with an architectural firm (73%) and is likely to be the owner (44%).

The work he is primarily engaged in probably includes design (75%), administration (74%), contact and business promotion (57%), contract drawings (53%), and specifications (48%).

Fifty-eight percent of Florida's architects have been registered to practice architecture eleven years or more. Half (50%) have been registered in Florida that long.

Most registered architects in Florida (78%) earned more than $15,000 before taxes during 1972 as a result of architectural work they performed and 31% earned more than $30,000.

Sixty-five percent of the architects responding to the survey indicated that they were seriously interested in continuing or advancing their architectural training.

B. The Status of the Florida Architectural Firm in 1973

The responses of those principals of architectural firms which have their major office located in Florida yield a profile of the typical Florida firm during 1973. Fifty-seven percent are individually owned, 23% are partnerships

and 29% are corporations (including 4% of the individually owned firms and 5% of the partnerships).

About half (54%) of the firms employ from 1 to 5 persons, 20% employ 6 to 10 persons, 21% employ between 11 and 50 persons, and 5% employ 51 or more persons.

Ninety-two percent of Florida firms employed registered architects, 60% of the firms employed senior draftsmen, 65% employed junior draftsmen, 50% employed non-registered graduate architects, 45% employed specification writers, 36% hired construction administrators, 35% employed planners, 32% employed estimators, 32% employed delineators, 24% employed interior designers, 22% employed other architectural technicians, 21% employed registered engineers, 19% employed engineering technicians, 12% employed landscape architects, and 76% of architectural firms employ other personnel including clerical, accounting, maintenance, etc.

Half of the firms (53%) had a dollar volume for contract construction of up to $5,000,000 during 1972 and another 43% of firms had a dollar volume of between $5,000,000 and $60,000,000. Four percent of Florida firms had a dollar volume of contract construction of over $60,000,000 during 1972.

Thirty-seven percent of the firms have been established five years or less, 44% have been established between five and twenty years, and 19% are older than twenty years.

The following is a rank order listing of the building types which constitute the primary workloads of Florida architectural firms: office buildings (81%), multi-family residential buildings (81%), commercial buildings (80%), single-family residential structures (59%), educational buildings (48%), planned unit developments (44%), industrial structures (43%), religious buildings (41%), recreational structures (40%), financial institutions (35%), other non-classified structures (35%), hospital/medical facilities (33%), and transportation facilities (12%).

Six percent of the principals of Florida's architectural firms estimate that their firms' volume of work will decrease between 1972 and 1975, and 16% felt that there would be no substantial change in their firms' volume of work during this time. However, 78% indicated that they believed their firms' volume of work will increase by 1975. Twenty percent of the principals projected their firms' volume increasing more than 50%.

C. Training Needs

Several questions included on the survey were designed to provide information concerning the educational needs of Florida's architects and architectural firms. As was mentioned earlier, 65% of Florida's architects responding to the survey indicated a serious interest in continuing or advancing their architectural training. These architects were then asked to indicate which of several main topics they would like to pursue. The topics which received the highest interest were; materials and new applications (42% would probably take and 31% might take), site design and planning (42% would probably take and 29% might take), urban regional planning (39% would probably take and 29% might take), management of architect's office (38% and 29%), housing financing and development (34% and 33%), and urban design (33% would probably take and 30% might take).

The architects indicating an interest in continuing their architectural education were next asked which of several schedules for attending part-time advanced study courses they preferred. Sixty-three percent indicated they would probably attend one evening a week (7 PM to 10 PM). Another 22% indicated they might attend activities with such a schedule.

Architects interested in continuing their architectural education expressed little interest in attending any training activities on a full-time basis, in obtaining academic credits or in obtaining advanced degrees.

The principals of Florida's architectural firms were asked to rate the architects hired by their firms in the past few years in terms of their capabilities and understanding of certain needed architectural skills. Their responses to this portion of the survey should provide needed information concerning areas of strength and areas of weakness in existing training programs. For example, 50% of the principals of firms rate their recently hired architects excellent or good in regards to their capabilities and understanding of site planning and architectural design. Likewise, 47% of the principals found recently hired architects to have excellent or good skills in drafting and delineation. Many principals (49%) found their firms' new architects to be excellent or good at meeting and getting along with people, including clients. On-the-other hand, however, 61% of the principals rated the new architects as only fair or even poor in regards to specifications and contract documents and in regards to building equipment and construction. Similarly, 60% of the principals rated newly hired architects as only fair or even poor in regards to structural design.

D. Manpower Needs

The major reason this survey was conducted was to collect information concerning the manpower needs of the architectural profession. Several questions were designed to obtain information concerning the need for personnel with training below the level of the first professional degree. In answer to one such question, for example, 82% of the principals of architect firms indicated the necessity of utilizing one or more junior college trained architectural technicians to provide support services for each graduate architect. Seventy-two percent of the principals indicated their willingness to hire junior college architectural technician students in an on-the-job training situation.

Likewise, 73% of the principals saw a necessity to utilize one or more vocational-technical architectural technicians to provide support services for each graduate architect. Sixty-three percent of the principals indicated their firm's willingness to hire vocational-technical architectural technician students in on-the-job training situations.

However, only 38% of the principals of Florida's architectural firms indicated the need to utilize one or more high school trained architectural technicians to provide support services for each graduate architect. Forty-two percent of the principals did indicate a willingness to hire high school architectural technician students in an on-the-job training program.

As concerns graduate architects, in regards to the question, "Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?", 72% of the principal officers of Florida's architectural firms answered, "No".

The principal officers were asked to project the number of graduates from architectural schools which their firms will seek to employ within the next three years, within the next five years and within the next ten years. They could indicate whether they felt there would be a decrease, no change or an increase in the number of graduate architects their firms will seek to employ during each of these periods of time. If they felt the number would increase the officers were asked to indicate whether the increase would be by 1 to 3, 4 to 7, 8 to 10, or more than 10 new graduate architects. Concerning the number of new architects the principal officers felt their firms will employ within the next three years, 4% indicated the number will decrease, 27% indicated there will be no change, but 69% indicated the number will increase. Concerning the number of new architects which their firms will employ within the next five years, 3% felt the number would decrease, 25% felt there would be no change and 72% felt the number will increase. Finally, concerning their projections of the number

of new architects their firms will employ within the next ten years, 5% of the principal officers foresaw a decrease, 25% predicted no change and 70% predicted an increase.

Utilizing the responses of those officers predicting an increase when asked to indicate the number of new architects which will be employed during each time period, it is possible to estimate the minimum requirements for new architect graduates of the 506 Florida architectural firms represented in the response to this survey. For example, 275 principal officers indicated their firms would need between one and three new architects within the next three years. This represents a minimum of 275 new architects (1 X 275 = 275) needed. Likewise, 50 firms' officers estimated that they would need between four and seven new architects within the three year period. This represents a minimum of 200 new architects (4 X 50 = 200) needed, and so on. The sum of each of these minimum projections yields an overall minimum need for new architects for each time period. Thus, the minimum number of new arcitects needed within the next three years by the 506 Florida architectural firms represented in the responses to this survey is 619. Likewise, the minimum number of new architects needed within the next five years is 937 and the minimum number needed within the next ten years is 1387.

The final question on the survey was designed to obtain information concerning the starting salaries offered by architectural firms to different categories of architectural manpower. Eighty-eight percent of the principal officers of Florida firms indicated they would start registered architects at above $10,000 per year; 63% would start registered architects at above $12,500 and 21% would start them at above $15,000. Likewise, 85% of Florida firms would start non-registered graduate architects at above $8,000; 46% of the firms would start them at above $10,000 and 15% of the firms would start non-registered graduate architects at above $12,500.

IV. ARCHITECTURE TRAINING FACILITIES IN FLORIDA

In Florida, there are two schools of architecture; a publically financed program at the University of Florida and a privately financed one (unaccredited at the time of this study) at the University of Miami. Miami-Dade Community College also has a department of architecture and building construction which serves as a feeder program for the two universities. The programs at each of these three institutions will be discussed briefly in this section.

A. The University of Florida

The architectural training program at the University of Florida was established in 1925. Unlike most other major architectural training programs which are organized as separate schools or colleges, the program at the University of Florida is presently a department in the College of Architecture and Fine Arts. Other departments in the College include Building Construction, Art, and Music. It was the feeling of the Study Committee working on this report that this administrative arrangement provided one of the major obstacles to the further development and expansion of the University of Florida architect training program. It was felt that if this program could be organized as a separate school or college it would have a much better chance attracting and utilizing the resources it needs for upgrading and for expansion.

The curriculum of the Department of Architecture is undergoing revision as a result of enrollment growth and faculty insight into the need for change. The five-year bachelor's degree and one-year master's degree programs, commonly called the five-one sequence, will be phased out by 1975. A four-two arrangement will take its place. Those students earning the four-year Bachelor of Design degree who wish to obtain a professional degree will now pursue a two-year graduate program. This professional degree (Master of Arts in Architecture) is a prerequisite

for seeking registration to practice architecture in the State of Florida and a growing number of other states. The Department states that this will permit further study in specialized areas of architectural design, architectural history, architectural structures, environmental systems, architectural preservation and urban design. The four-two arrangement for professional training is a major trend nationwide in the curriculum of architect training programs and is a result of the expanding role of architects. Approximately two-thirds of the nation's accredited programs have now adopted this type curriculum.

The Architecture Department at the University of Florida reports that approximately half of the students who obtain the Bachelor of Design degree pursue graduate training at either the University of Florida or at other institutions. Most of the students who earn this bachelor's degree, but who do not pursue graduate training, seek positions with architectural firms where they perform such valuable services as specification writing and the design of small structures.

During the last decade the student enrollment in the Department of Architecture increased rapidly. In 1967 the number of full-time equivalent (FTE) students was 386, five years later in 1972 it was 600, and is projected to be 810 by 1977. There was also a rise in the number of FTE faculty positions from 34.0 in 1967, to 41.0 in 1972, with 57.0 projected for 1977. There has been a turnover of seventeen professors in the last five years with five due to deaths.

The growth rate and demand has increased so rapidly that the department has outgrown its usable space and as a result there is overcrowding, especially at the undergraduate level. Facilities are spread out over the university campus with the graduate students being furthest from the main office and library (approximately a half-mile away). At least one-fourth of the usable space is in

poor condition. The university has responded to the facility needs by placing the department among those with top priority for new facilities.

The department of architecture has maintained quality in its program through the process of selective admissions. In the past several years the demand has been so great that besides evaluating grades, appointments and interviews have been added. The department has also maintained a quota system of accepting approximately forty students from each of three sources: Miami-Dade, out-of-state, and the lower level at University of Florida, into the third year or upper level of study. Entrance into the graduate program is based on the graduate school requirements and has been competitive. There were only two graduate assistantship positions provided by the College for the 1973 calendar year, but another nineteen positions were awarded as a result of research projects brought in by the Faculty. The number of students graduating from the program with bachelor's degrees was 431 for the decade of the 1960's. So far in the '70's, the program has graduated 293 students with bachelor's degrees. From the master's program, 18 graduated in the '60's, and 48 have already graduated in the '70's. Graduates have had on the average of between four and five job choices.

B. The University of Miami

The architectural training program at the University of Miami was started in 1951. It was not until 1962 that the five-year bachelor degree program in architecture was added. The Department of Architecture and Architectural Engineering is in the School of Engineering and Environmental Design. The department offers a Bachelor of Science in Architecture, a Bachelor of Science in Architectural Engineering, a Master of Science in Urban Design, and a Master of Science in Urban and Regional Planning. The core of the curriculum

in architecture is design, ranging over the physical environment from the individual to the urban scale. The intent of the total program is to furnish, through prescribed course sequences and electives, a broad base from which a student may choose the direction of his future professional career.[17]

Graduates of the five-year architectural program fulfill the educational requirements of the Florida State Board of Architecture, but must work in the field for three years before they may take the Architectural Registration Examination for practice in the State of Florida. At the time of this study, this department was preparing for evaluation for accreditation to be carried out by the National Architectural Accrediting Board in the Spring of 1974.

The full-time equivalent (FTE) count for architectural students in the Fall of 1973 was approximately 255, representing 284 students. The growth of the department is not now limited by the university, and significantly more students are expected when the program becomes accredited. The department maintains selective admissions, and transfer students must have a 2.5 grade point average. There were no assistantships for students, apart from student helpers, although most had part-time work with professional architects in the Miami area. Graduates have had good job prospects after graduation.

The full-time equivalent count for the faculty was 19.0. This indicates a student-to-faculty ratio of about 13 to 1, or thirteen students to every professor. The faculty has expanded during the last five years. Nine new professors were hired, three resigned, and two professors retired.

C. Miami-Dade Community College

The program from which Architectural Studies and related areas was derived was initiated in 1963. The areas of specialization under the Technical-Vocational and Occupational Education program that relate to architecture

---

[17]University of Miami, Undergraduate Bulletin 1974-75, pp. 113-114.

are: Architectural Technology, Pre-Architecture, Pre-Design, Pre-Landscape, Landscape Development, Pre-Building Construction, Building Construction, Pre-Architecture Engineering, and Drafting Technology.

Four areas are designed for students to satisfy requirements which constitute the fulfillment of all the University of Florida requirements for the freshman and sophomore years in the College of Architecture and Fine Arts. The areas designated for transfer are: Pre-Building Construction, Pre-Interior Design, Pre-Landscape Architecture, and Pre-Architecture. The area of Pre-Architecture was designed in conjunction with the University of Florida Department of Architecture. The Pre-Architecture area is also designed for transfer to the University of Miami.

All of the areas of specialization maintain open admissions. Within the area of Pre-Architecture there are approximately six hundred students. Approximately fifty percent of those who enroll in Pre-Architecture change majors within the two years it takes to complete requirements for the Associate of Arts degree. Eighty percent of those students staying in Pre-Architecture finish the degree on time. Out of the 600 enrolled students, at the time of this study, 300 will stay in the area and approximately 240 will complete the degree. From the graduating class at least 40 will be accepted at the University of Florida and about 20 will go to the University of Miami.

The Pre-Architecture area has had no trouble attracting students. At the time of the study students were being turned away due to the high demand and limited facilities. The area has also had no trouble attracting minority students as 75% had Spanish surnames, 2% were black, and 5% were women.

In order to cope with the great demand and limited space the program offers both day and night classes. The hours are those most preferred by regular students and part-time students who work. Classes are also held at both the North and South Campuses, and a student may take courses at either.

D. Enrollment and Degree Projections

During the past decade there was considerable growth in the population and in the amount of construction in Florida. This "boom" brought on a great demand for increased architectural services. The two universities offering architectural studies, the Univeristy of Florida (public) and the University of Miami (private), experienced higher levels of enrollments and an increased number of graduates each year during this time. The number of graduates from UF and UM during the early seventies is out-pacing the total number graduated during the sixties.

Enrollments at UF have increased sharply since 1969. For each academic year during the 1966-69 period, fulltime equivalent (FTE) enrollment was approximately 400 students. In 1970 the FTE rose to 512 (418 undergraduate, 94 graduate), representing an increase of 23% over 1969 (402 undergraduate, 12 graduate). Since 1970 the FTE has risen at an average rate of about 13% per year and is projected to peak by 1977 at 810 FTE (540 undergraduate, 270 graduate). The situation at the University of Miami has been fairly stable in enrollments with approximately 200 students enrolled for the 1968-72 period. However, there was a substantial 1972-73 increase and a sharp increase for the 1973-74 school year with 284 students enrolled. This represented an increase of almost 30% over the previous year. The optimum architectural enrollment at UM is considered to be approximately 400 to 500 headcount students or 360 to 450 FTE students.

The University of Florida graduated 449 architecture students for the 1960-69 period. For the 1970-73 period, UF has already graduated 341. The University of Miami graduated 54 students for the 1964-69 period. For the 1970-73 period, UM graduated 99 students thereby exceeding the total number of graduates during the sixties.

V. NUMBER OF ARCHITECTS AND PROJECTIONS

A. The General Population and the Number of Architects Nationally and in Florida

The general population of the United States, as shown in Table 1 below, has had a steady increase of over 2 million people per year from 1960 through 1970 representing a 13% increase for the decade. The projected population for 1980 shows an increase of close to 3 million people per year from 1970 through 1980 representing an increase of 15% during the 1970's decade. The number of architects, however, had less of a percentage increase in relation to the population increase for the 1960 through 1970 decade. As a result, U.S. Bureau of Labor Statistics manpower projections show an increased need of 51% by 1980 in the number of architects to serve the nation's growth.[18] A comparison between the growth rates of the nation's population and the number of registered architects in the U.S. is made in Table 1.

Table 1
U.S. Population[18] and Resident Registered Architects[19]

	1960	% Increase	1970	% Increase	1980
U.S. Population	179,322,000	+13	203,166,000	+15	232,966,000
Resident Registered Architects	30,000	+10	33,000	+51	50,000

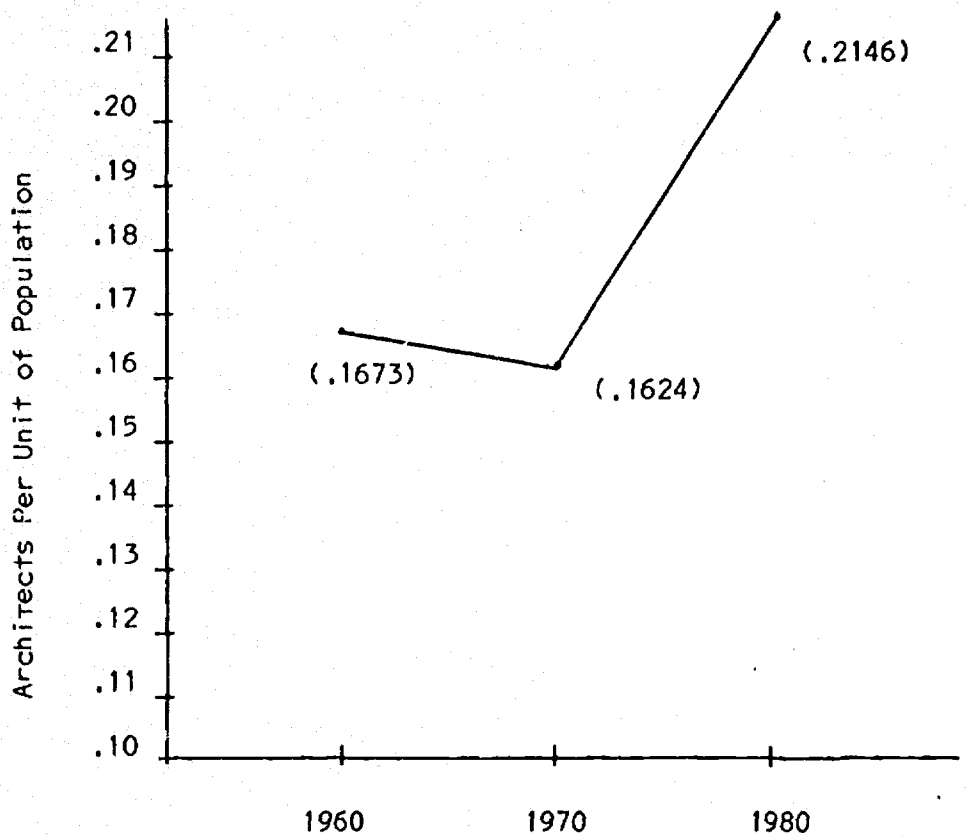
Graph 1 shows a projection that the ratio of architects per unit of population (1000 people) will increase nationally from 1970 through 1980. If the manpower projections are accurate this would mean the 75 institutions now accred-

[18] U.S. Department of Commerce, Current Population Reports, Series P-25, No. 477, March 1972, p. 4.

[19] U.S. Department of Labor, op. cit., p. 18

GRAPH 1

THE NUMBER OF ARCHITECTS IN THE U.S.A. PER 1000 PEOPLE FOR 1960, 1970, and 1980



	NUMBER OF REGISTERED ARCHITECTS	U.S. POPULATION	ARCHITECTS/1000 People
1960	30,000	179,323,000	.1673
1970	33,000	203,166,000	.1624
1980	50,000	232,966,000	.2146

ited by the National Architectural Accrediting Board need to produce an additional 17,000 registered architects by 1980. In other words, each institution would need to graduate approximately 227 students during the 1970's who pass state registration board examinations. During the 1960 through 1970 decade, the existing fifty accredited institutions only produced an average of 60 graduates per institution who passed state board exams.[20]

The number of architects registered in Florida is increasing in relation to the size of the population of Florida. The U.S. Department of Commerce figures show the population of Florida for 1960 and 1970 at 4,951,560 and 6,790,929 respectively. The Florida Board of Architecture Registration figures show the number of registered architects for 1960 and 1970 at 1,041, and 2,748 respectively. Comparing these sets of figures, an increase is shown in the number of registered architects per thousand in 1970. It must be remembered, however, that only half of the architects registered to practice in Florida actually resided in the state.

The increase in the number of architects registered in Florida in relation to the state population is plotted in Graph 2. For example there were .3757 registered architects per thousand Florida residents in 1969. In four years, the per thousand indicator increased to .4397 architects. This increase follows the trend of increases in the number of registered architects evident over the last twelve years (See Table 2).

B. Dollar Volume of Florida Construction and History

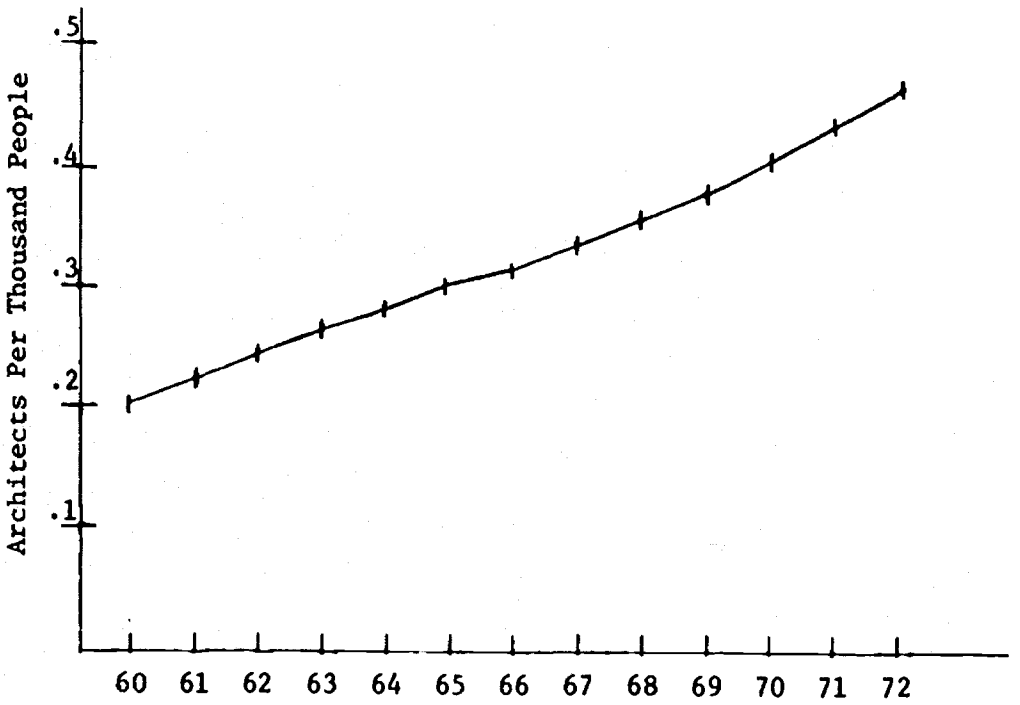
Construction in the South has had what may be termed a "boom" over the past several years. This "boom" has been most evident in the housing construction

---

[20]Clarence E. Lovejoy, Lovejoy's College Guide (New York: Simon and Schuster, 1961, 1964, 1965, 1970), p. 94.

GRAPH 2

THE TOTAL NUMBER OF RESIDENT AND NON-RESIDENT ARCHITECTS PER 1000 PEOPLE IN FLORIDA



Year	NUMBER OF REGISTERED ARCHITECTS[1]	POPULATION[2]	ARCHITECTS/UNIT
1960	1041	4,951,560	.2102
1961	1202	5,270,100	.2281
1962	1349	5,458,000	.2472
1963	1509	5,620,800	.2685
1964	1637	5,796,100	.2824
1965	1800	5,974,100	.3013
1966	1937	6,137,400	.3156
1967	2130	6,288,700	.3387
1968	2290	6,491,900	.3527
1969	2517	6,699,400	.3757
1970	2748	6,790,929	.4047
1971	3040	7,024,600	.4328
1972	3341	7,210,300	.4634

[1]Florida State Architecture Registration Board

[2]Florida Department of Administration

Table 2
Florida Architect Registration Figures
1960-1972

Year	Yearly New Registrations	Total Registered Architects
1960	146	1,041
1961	161	1,202
1962	147	1,349
1963	160	1,509
1964	128	1,637
1965	163	1,800
1966	137	1,937
1967	193	2,130
1968	160	2,290
1969	227	2,517
1970	231	2,748
1971	292	3,040
1972	301	3,341

industry. McGraw Hill Information Systems Company reports that:

> "A decade ago, 30 percent of the nation's housing was constructed in the South. In recent years this figure has averaged consistently over 40 percent. Yet despite the record levels of housing that have been built, vacancy rate data indicated that immigration and the desire to upgrade existing living conditions have been more than equal to the task of clearing the market. Because this is so, the anticipated decline next year should be an orderly one for the South, with the region maintaining its current proportion of the national total." [21]

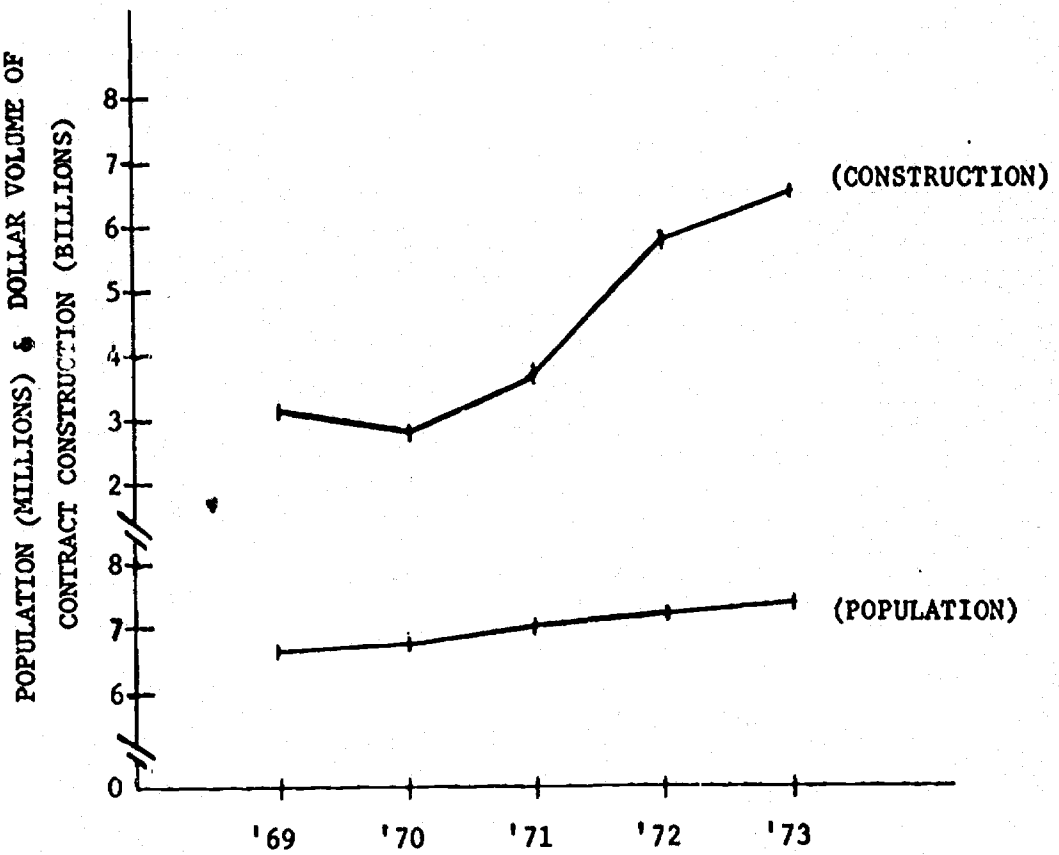
The "boom" nature of the construction industry in Florida is evident when the rate of increase in dollar volume of contract construction is compared with the rate of increase in the state's population. Construction is increasing at a greater rate than the population. Graph 3 relates the great increase in contract construction; starting in 1970 at $2.84 billion, increasing to $5.86 billion in 1972, and through September of 1973 when the total was already at $5.3 billion; to the more linear increase in state population.

---

[21] 1974 Dodge/Sweet's Construction Outlook, (New York: McGraw-Hill Information Systems Co., 1973), p. 12.

GRAPH 3

FLORIDA POPULATION AND CONSTRUCTION



	FLORIDA POPULATION[1]	FLORIDA CONSTRUCTION[2]
1969	6,699,400	$3,021,363,000
1970	6,790,929	$2,840,496,000
1971	7,024,600	$3,644,698,000
1972	7,210,300	$5,867,968,000
1973	7,404,000	$6,529,276,000

Sources:

[1] Projected Florida population - Florida Department of Administration

[2] F. W. Dodge, a division of McGraw - Hill Information Systems Co. The figures include total residential and non-residential construction.

Several recent events may have an effect on the continuation of the rapid growth of the contract construction industry in Florida. These include the President's suspension of housing subsidy programs during 1973; his efforts to slow public works projects through impoundment and veto; the United States' unfavorable balance of trade and the resulting slippage of the value of the American dollar on world money markets; the November, 1973, cutoff of oil from the Mid-East and the resulting energy crisis; and the possibility of a nation-wide recession. The full effect of these events is not evident yet. They may have no effect on the growth of the construction industry in Florida, they may cause the dollar volume of construction to taper off at present levels or they may result in an actual decline in the volume of construction within the state.

Architects on the Study Committee, however, point out that there is already a growing demand for architectural services to redesign existing structures to use less energy. Likewise, they point out that the effect of the slow down in the construction of housing and public works has already created a backlog of need which architects and the construction industry are straining to meet as building permits, funds, and materials become available. Overall, the architects feel that the energy crisis will lead to a large demand for new structures designed to utilize energy more efficiently and in this way will provide further growth in the construction industry.

VI. CONCLUSIONS CONCERNING FLORIDA'S MANPOWER NEEDS FOR ARCHITECTS

A. The Need for Architects in Florida is Growing

The architectural profession, both nationally and within Florida, is a growing profession. This is borne out by the review of related literature, the results of the survey and the growing number of architects registered to practice in the state.

The U.S. Bureau of Labor reports 33,000 architects employed within the nation during 1970 and estimates a national need for 50,000 architects by 1980; an increase of 51%. This growth should result in about 1,000 new openings every year nationwide during the decade of the 70's.

On the 1973 survey of Florida architects, the principal officers of architectural firms were given an opportunity to project the needs of their firms for new architects into the future. They were asked what their needs would be in the next three years, within the next five years, and within the next ten years. Table 3 presents the minimum needs of 506 Florida firms for new architects during each of three time periods, broken down by metropolitan area of the firms' location, as estimated by one principal officer of each firm. Even though these results do not include the needs of all Florida architectural firms and include only the minimum projections of the principal officers, they do indicated the state's rapidly growing need for architects.

The total number of architects registered to practice in Florida is increasing yearly. Likewise, the number of examinees taking the registration examination each year is increasing. In recent years the number of examinees passing the registration examination has ranged between 22% and 35%. Table 4 compares the population of Florida to the number of architects registered in the state by year and includes an indication of the number of new archi-

tects registered each year. This table presents figures from recent years as well as Board of Architecture Registration projections through the first half of the decade.

Table 3
Projected Minimum Manpower Needs for New Graduate Architects Within Major Metropolitan Areas of Florida 1973

Area	Within the Next 3 Years	Within the Next 5 Years	Within the Next 10 Years
Miami-Ft. Lauderdale-West Palm Beach Area	276	407	602
Orlando-Daytona Beach Area	81	134	190
Tampa-St. Petersburg-Clearwater-Bradenton-Sarasota-Lakeland Area	118	195	283
Gainesville-Ocala Area	23	24	88
Jacksonville Area	57	82	121
Tallahassee, Panama City-Pensacola Areas Combined	36	58	42
Other Non-Classified Areas	28	37	61
TOTALS FOR THE STATE	619	937	1,387

Table 4
Florida Population and Registered Architects
(as of January, 1974)

Year	State Population[1]	Total Registered Architects[2]	Registered Architects Residing in Florida[3]	Number Registered in a Given Year[4]
1965	5,974,100	1,800		163
1966	6,137,400	1,937		137
1967	6,288,700	2,130		193
1968	6,491,900	2,290		160
1969	6,699,400	2,517		227
1970	6,790,929	2,748	1,450	231
1971	7,024,600	3,040	1,551	292
1972	7,210,300	3,341	1,522	301
1973	7,404,000	3,822	1,674	520
1974	7,593,000	4,267[5]	1,841[5]	445[5]
1975	7,782,000	4,712	1,961	445

[1]Florida Department of Administration

[2]Florida State Architecture Registration Board

[3]Florida State Architecture Registration Board (Started collecting data in 1970)

[4]Florida State Architecture Registration Board

[5]Florida State Architecture Registration Board Projections for 1974 and 1975

B. Other States Provide a Substantial Number of Florida's Registered Architects

It was mentioned earlier that the number of graduate architects taking the Florida Architectural Registration examination each year who graduated from either of Florida's two architectural education programs is smaller than the number of examinees who graduated from out-of-state schools. Like-

wise, only about one-half of the architects registered to practice in Florida actually reside within the state. Table 5 presents a breakdown of architects registered to practice in Florida as of the middle of 1973 listed by the states in which they reside.

Table 5
Resident States of Florida's Registered Architects[1]
(as of July 6, 1973)

(AL)	ALABAMA	72	(MO)	MISSOURI	36
(AK)	ALASKA	3	(MT)	MONTANA	0
(AZ)	ARIZONA	12	(NB)	NEBRASKA	6
(AR)	ARKANSAS	7	(NV)	NEVADA	0
(CA)	CALIFORNIA	63	(NH)	NEW HAMPSHIRE	1
(CO)	COLORADO	8	(NJ)	NEW JERSEY	73
(CT)	CONNECTICUT	34	(NM)	NEW MEXICO	2
(DE)	DELAWARE	2	(NY)	NEW YORK	228
(DC)	DIST OF COL	26	(NC)	N. CAROLINA	48
(FL)	FLORIDA	1,766	(ND)	N. DAKOTA	2
(GA)	GEORGIA	198	(OH)	OHIO	118
(HI)	HAWAII	0	(OK)	OKLAHOMA	10
(ID)	IDAHO	0	(OR)	OREGON	2
(IL)	ILLINOIS	108	(PA)	PENNSYLVANIA	91
(IN)	INDIANA	41	(RI)	RHODE ISLAND	7
(IA)	IOWA	5	(SC)	S. CAROLINA	35
(KS)	KANSAS	11	(SD)	S. DAKOTA	0
(KY)	KENTUCKY	13	(TN)	TENNESSEE	74
(LA)	LOUISIANA	26	(TX)	TEXAS	72
(ME)	MAINE	2	(UT)	UTAH	4
(MD)	MARYLAND	42	(VT)	VERMONT	2
(MA)	MASSACHUSETTS	53	(VA)	VIRGINIA	39
(MI)	MICHIGAN	55	(WA)	WASHINGTON	4
(MN)	MINNESOTA	35	(WV)	WEST VIRGINIA	2
(MS)	MISSISSIPPI	11	(WI)	WISCONSIN	31
			(WY)	WYOMING	0

TOTAL REGISTERED ARCHITECTS	3,513
TOTAL RESIDING IN U.S.A.	3,480
TOTAL RESIDING OUTSIDE U.S.A.	33

[1]Florida Board of Architecture Registration

C. The Current Production of Architects by Florida's two University-Level Training Programs is not Enough to Meet the State's Needs for Architects

Table 6 presents a breakdown of the number of graduates of the University of Florida and the University of Miami receiving professional degrees in archi-

tecture (the five year baccalaureate degree in architectural design and the six year Master's degree in architecture) during 1970, 1971, 1972 and 1973. Also included are the estimates by the heads of these two programs as to the possible number of graduates their programs could produce each year through 1980 assuming that modest but necessary resources for such expansion are forthcoming.

Table 6
University of Florida and the University of Miami
Actual and Projected Architectural Graduates with Professional Degrees[1]
(as of the end of 1973)

Year	UF 5-yr. B.A. Arch.[2]	UF 6-yr. M.A. Arch.[3]	UM 5-yr. B.A. Arch.[2]	Totals
1970	61	4	30	95
1971	61	9	33	103
1972	77	9	33	119
1973	94	26	23	143
1974	56	41	25	122
1975[4]		30[4]	30[4]	60[4]
1976		56	50	106
1977		100	75	175
1978		100	100	200
1979		100	100	200
1980		110	100	210

[1] Figures provided by the UF and UM Departments of Architecture.

[2] Graduates from the 5-year B.A. Architectural programs at the University of Florida and the University of Miami must work a minimum of two years in the profession before they are eligible for state registration; assuming satisfactory performance on the state registration examination.

[3] Graduates from the 6-year M.A. Architectural program must work a minimum of one year in the profession before they are eligible for state registration; assuming satisfactory performance on the state registration examination.

[4] 1974 is the last year in which there are students who will graduate from UF's 5-year B.A. Architectural program that has been in the process of being phased out over the last 5 years. The phase out of the 5-year B.A. Architectural program also accounts for the low number of UF graduates projected for 1975.

From Table 6 it is evident that the University of Florida and the University of Miami are together currently granting approximately 100 professional architecture degrees a year. The average amount of time between graduation and the first time a graduate architect takes the examination for architectural registration is 3.5 years. This along with the fact that only about one-third of the examinees in a given year pass the registration examination makes it difficult to determine when these graduates will be ready to fill positions as registered architects. It is obvious, however, that these two program are not presently producing enough architects to meet the needs of Florida's architectural firms. The 506 Florida firms represented in the responses to the survey for this study alone indicated a need for approximately 200 new architects a year during the next three years. The principal officers of these firms saw this need increasing to approximately 300 new architects a year by the end of the decade.

D. A Substantial Number of Florida's Architectural Firms have been Unable to Obtain Enough Qualified Architects to fill Available Jobs

In response to a question on the 1973 Florida Architect Survey, 72% of the principal officers of Florida's architectural firms indicated that their firms had not been able to find enough qualified persons with architectural training to serve the needs of their practices. This response is greater than that of the principal officers of architectural firms representative of the ten Southern states when they were asked the same question in December, 1971. In that case 48.8% indicated they had been unable to find enough qualified architects to meet their needs.[22]

E. The State of Florida Should take Steps to Increase the Number of Qualified Persons with Architectural Training Available to Provide the Architectural Services Needed Within the State

Assuming that the preceding conclusions of this study are valid, i.e.,

---

[22]The Florida Architect, op. cit., p. 5.

the need for architects is growing, other states provide a substantial number of Florida's registered architects, Florida's two university-level programs do not produce enough architects to meet the states needs and Florida firms are having difficulty finding enough qualified architects, it would seem necessary that efforts should be initiated within Florida to increase the number of architects available to meet the state's needs.

There are basically two alternative ways in which this objective can be accomplished. The simplest alternative is to step up the recruitment of out-of-state architects for registration in Florida. This approach has the advantages of being relatively cheap and of providing trained architects in a relatively short amount of time. However, this approach also has several distinct disadvantages. There are two types of out-of-state architects who would seek registration in Florida as a result of such a recruitment effort; recent graduates of non-Florida training programs and architects who have established practices in other states already. Although the recent graduates may move to Florida once they are registered here, the more established architects would probably not. The net result of a major effort to recruit out-of-state architects would thus be to increase the number of architects who are registered in Florida but who reside in other states. Already half of all the architects registered in Florida reside elsewhere. The fees and commissions these architects earn for architectural services provided in Florida flow out of the state's economy. Likewise, the related architectural jobs (draftsmen, interior designers, etc.) resulting from projects these architects accept in Florida are filled in the state of the architect's principal practice, not in Florida. In other words, reliance on recruitment of out-of-state architects will probably result in Florida obtaining the architectural services it needs, but at a cost to the state's economy, i.e., fees and commissions generated in Florida flowing to out-of-state firms and loss of jobs which could be filled

by Florida residents.

The other way Florida can increase the number of architects available within the state is to increase its own production of architects. There are two methods by which this can be done; by increasing the production of the two existing architectural training programs and/or by starting up a new training program.

Actually, the magnitude of the present need for architects within the state provides considerable justification for doing both concurrently. Increasing the enrollments in the existing programs could begin within a relatively short period of time; the basic faculties already exist, both programs are well established and on-going, and at least one is already accredited by the National Architectural Accrediting Board (the University of Miami is to be considered for accreditation by the NAAB early during 1974). On the other hand, it will take the better part of a decade before the graduates of a new program would begin to become available to meet the needs of the state for more registered architects. The minimum lead up time for a new program will include one to two years for planning and organization, another six years before the first full graduates of the program are produced, and another two years after the first graduating class before the program is considered for accreditation (accreditation is retroactive two years to cover the first graduating class). If the expansion of the University of Florida program started during the Fall of 1974, the effects in terms of increased numbers of graduates should begin to become evident within four years.

Both of the existing programs, however, would require an input of additional resources before their enrollments could be expanded significantly. The lack of space is a major problem both would encounter. The quality of the space available to the architectural training program at the University of Florida is an

additional limiting factor on its expansion. In addition to more and better quality facilities, both programs would also need modest additions in faculty and operating funds in order to accommodate large increases in their enrollments. Futhermore, graduate assistantships are needed to attract the highest quality architectural students possible during the graduate portion of their training. An increased number of such graduate assistantships need to be made available to attract quality students into UF's graduate program.

The decision to expand either the University of Miami architecture program or the University of Florida program must be made by the respective university's administration. The University of Miami is a private institution. A decision by the UM administration to expand the school's architect training program is a difficult one to make at this time. Such a decision would require that additional resources be put into the program at a time when the University, and private higher education in general, are experiencing a decline in enrollments and in resources. Although the possibility has been discussed from time to time, there presently is no Board of Regents policy concerning the use of State University System funds for the general support of such needed programs at private institutions. Somewhat of a precedent was set, however, by the 1951 legislative arrangements for public support of Florida's first medical college.[23] The University of Miami's medical college was the first one organized in the State and thus it now receives public support on a per student basis.

Similarly, the decision to expand the University of Florida architect training program is one which must be made by the UF administration. Although the architecture program has been given top priority by recent UF administrations, they have been unable, to date, to muster the necessary resources to al-

---

[23]Florida. An Act Relating to Medical School Education in the State of Florida. General Laws (1951) Vol. 1, Chapter 26763.

low a significant expansion of the program. Because of the above, it would appear that the most definite method available to the Board of Regents for increasing the number of architects being trained within Florida is the initiation of a new architect training program at one of the State University System institutions not presently offering such a program. In fact, the Comprehensive Development Plan (CODE) of the State University System of Florida, as approved by the Board of Regents, calls for the development of new bachelor's and master's level programs for the training of professional architects at a second state university during this decade.[24]

This study was not designed to answer the question of where a new architecture program should be placed. However, several factors which are relevant to such a decision seem evident. For example, the existing publicly supported architectural training program at the University of Florida is located in the northern half of the state. The argument can be made that it is not readily accessible to the large population of students concentrated in the State's southern metropolitan centers. On the other hand, the privately supported program at the University of Miami is located in the southern half of the state, but at the present is a small, unaccredited program which is out of the reach of many average and low income students because of the relatively high tuition rates at the University ($1,250 per semester for undergraduate as of Fall, 1973).[25] The above would seem to indicate a rationale for placing the new architectural training program called for in CODE at one of the state universities accessible to the southern half of Florida. It is, however, the legal responsibility of the Board of Regents to make this decision.[26]

---

[24]Florida Board of Regent, Comprehensive Development Plan (CODE) of the State University System of Florida (Tallahassee, Fla: Office of the Board of Regents, December, 1969), P. 55.

[25]University of Miami, Bulletin for Undergraduate Studies for the Academic Year 1973-74 (Coral Gables, Fla.: University of Miami, July 15, 1972), p. 64.

[26]Florida, Board of Regents Incorporated; Powers, Duties etc. Statutes (1971), Chapter 240, Section .042, (2) (g), 1216-1217.

Appendix I

CONFIDENTIAL SURVEY OF ARCHITECTS REGISTERED TO PRACTICE IN FLORIDA

CONDUCTED BY THE FLORIDA BOARD OF REGENTS IN COOPERATION WITH THE FLORIDA STATE BOARD OF ARCHITECTURE AND THE FLORIDA ASSOCIATION OF THE AMERICAN INSTITUTE OF ARCHITECTS

DIRECTIONS AND INFORMATION: Please record your answers on the answer sheet which is the final page and follow the instructions on the answer sheet for returning the completed answer sheet. Please do not return the questionnaire. The completed answer sheets from this survey will be machine-read to facilitate the aggregation of data and the subsequent analyses of the data.
NOTE: You may find it more convenient to first record your answers on the questionnaire and then have them transcribed to the answer sheet.

PART ONE - QUESTIONS TO BE ANSWERED BY ALL REGISTERED ARCHITECTS:

1. What is the United States Postal Service Zip Code Number of the address of your principal office or, if you are an employee, the office in which you normally work?

2. Sex (1) Male (2) Female

3. Ethnic background
   (1) Caucasian (2) Negroid (3) Oriental (4) Spanish surname (5) Other

4. Age
   (1) Under 20 (2) 20 through 29 (3) 30 through 39 (4) 40 through 49
   (5) 50 through 59 (6) 60 and above

5. What is the highest level of education you have attained at this time?
   (1) High school or less
   (2) 1 year or less of college
   (3) 2 to 3 years of college (including two year degree)
   (4) 4 or more years of college (no degree)
   (5) Bachelor's degree
   (6) Graduate work without advanced degree
   (7) Master's degree
   (8) Doctorate

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)
   (1) 4-year architectural school curriculum
   (2) 5-year architectural school curriculum
   (3) Some other architectural school curriculum
   (4) Business or related fields
   (5) Engineering
   (6) Interior Design
   (7) Landscape Architecture
   (8) Planning (urban and/or regional)
   (9) Other

7. If you also have a Master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:
   (1) Combined, single-school, 6-year architectural curriculum consisting of a five-year Bachelor's and a one-year Master's program
   (2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and a two-year Master's program
   (3) Combined, single-school, Bachelor's/Master's architectural curriculum in any other combination
   (4) Architecture, but not from a combined program
   (5) Business or related fields
   (6) Engineering
   (7) Interior Design
   (8) Landscape Architecture
   (9) Planning (urban and/or regional)
   (10) Other

8. Indicate architecture program(s) from which you graduated:
   (1) Miami-Dade Junior College
   (2) University of Florida
   (3) University of Miami
   (4) Other Florida junior college
   (5) Other (Out of Florida)
   (6) None

9. With what type of organization are you principally affiliated? Check one number for your primary activity.
   (1) Architectural firm
   (2) Architectural-engineering firm
   (3) Engineering firm
   (4) Developer
   (5) Contractor
   (6) Business
   (7) Landscape architectural firm
   (8) Planning firm
   (9) Government
   (10) Educational institution
   (11) Other

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?
   (1) Individual practice
   (2) Partnership
   (3) Corporation
   (4) Individual practice-corporation
   (5) Partnership-corporation

11. With what type of organization are you secondarily affiliated?
   (1) Architectural firm
   (2) Architectural-engineering firm
   (3) Engineering firm
   (4) Developer
   (5) Contractor
   (6) Business
   (7) Landscape architectural firm
   (8) Planning firm
   (9) Government
   (10) Educational institution
   (11) Other

12. What is your relationship to the organization in Question 9 above? Check one.
   (1) Owner
   (2) Partner
   (3) Corporate director
   (4) Officer
   (5) Employee only
   (6) Faculty only

13. Mark the special area(s) which you are primarily engaged.
   (1) Administration
   (2) Contact and business promotion
   (3) Feasibility
   (4) Programming
   (5) Design
   (6) Contract drawings
   (7) Specifications
   (8) Estimating
   (9) Construction observation
   (10) Other

14. How many years have you been registered to practice architecture?
(1) Up to 5 years (2) 6-10 years (3) 11-15 years (4) Over 15 years

15. How many years have you been registered to practice architecture in Florida?
(1) Up to 5 years (2) 6-10 years (3) 11-15 years (4) Over 15 years

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?
(1) Under $10,000 (2) $10,000-15,000 (3) $15,001-20,000
(4) $20,001-30,000 (5) $30,001-50,000 (6) Above $50,000

17. Are you seriously interested in continuing or advancing your architectural training?
(1) Yes (2) No

If the answer to Question 17 was "Yes", please answer Questions 18 through 22.
If the answer to Question 17 was "No", please proceed to Part II.

18. What is your preference for main topics of courses? Check one number for each topic.

	Would probably take	Might take	Would probably not take
A. Computer applications	1	2	3
B. Construction technology	1	2	3
C. Housing financing and development	1	2	3
D. Interior Design	1	2	3
E. Management of architect's office	1	2	3
F. Materials and new applications	1	2	3
G. Mechanical/Electrical building systems	1	2	3
H. Site design and planning	1	2	3
I. Urban and regional planning	1	2	3
J. Urban design	1	2	3
K. Other	1	2	3

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule

	Would probably Attend	Might Attend	Would probably Not Attend
A. 2 evenings per week (7:00 - 10:00)	1	2	3
B. 2 evenings per week (4:00 - 6:00)	1	2	3
C. 1 evening a week (7:00 - 10:00)	1	2	3
D. 1 evening a week (4:00 - 6:00)	1	2	3
E. Saturday (9:00 am - 12:00 or all day)	1	2	3

20. Are you interested in full-time 1 to 4 week courses?
(1) Yes (2) No

21. Are you interested in obtaining academic credits?
(1) Yes (2) No

22. Are you interested in obtaining an advanced degree in:
(1) Architecture (2) Architectural engineering (3) Landscape architecture
(4) Urban design (5) Urban and regional planning (6) Other
(7) None

END OF PART ONE

PART TWO -- INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?
(1) Individual ownership (2) Partnership (3) Corporation
(4) Individual ownership-corporation (5) Partnership-corporation

24. If the following services are provided by your architectural firm, are they provided by inhouse staff, consultants, or both? Check one number for each service.

	In-house Staff	Consultants	Both	Not Provided
A. Structural engineering	1	2	3	4
B. Mechanical engineering	1	2	3	4
C. Electrical engineering	1	2	3	4
D. Programming	1	2	3	4
E. Estimating	1	2	3	4
F. Interior Design	1	2	3	4
G. Graphics	1	2	3	4
H. Landscape architecture	1	2	3	4
I. Urban/regional planning	1	2	3	4
J. Construction management	1	2	3	4
K. Rural estate development	1	2	3	4
L. Contracting	1	2	3	4

25. What is the total number of personnel presently in the firm? Check one number.
(1) 1-5 (2) 6-10 (3) 11-15 (4) 16-20 (5) 21-25 (6) 26-30
(7) 31-40 (8) 41-50 (9) 51 and above

26. How many of each of the following types of individuals are in the firm? Check one number for each type.

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	1	2	3	4	5	6	7	8
B. Registered engineers	1	2	3	4	5	6	7	8
C. Graduate architects (not registered)	1	2	3	4	5	6	7	8
D. Interior designers	1	2	3	4	5	6	7	8
E. Landscape architects	1	2	3	4	5	6	7	8
F. Senior draftsmen	1	2	3	4	5	6	7	8
G. Junior draftsmen	1	2	3	4	5	6	7	8
H. Planners	1	2	3	4	5	6	7	8
I. Specification writers	1	2	3	4	5	6	7	8
J. Estimators	1	2	3	4	5	6	7	8
K. Construction administrators	1	2	3	4	5	6	7	8
L. Delineators	1	2	3	4	5	6	7	8
M. Other architectural technicians	1	2	3	4	5	6	7	8
N. Engineering technicians	1	2	3	4	5	6	7	8
O. All others (clerical, accounting, maintenance, etc.)	1	2	3	4	5	6	7	8

27. What was your approximate dollar volume of contract construction for 1972?
(1) Up through $1,000,000 (2) $1,000,001 - 5,000,000
(3) $5,000,001 - 20,000,000 (4) $20,000,001 - 60,000,000
(5) Over $60,000,000

28. How many years has your firm been established?
(1) Up through 5 (2) 6-10 (3) 11-15 (4) 16-20 (5) 21 or more

29. Check the building types that constitute your primary work load.

	Yes	No
A. Office buildings	1	2
B. Financial institutions	1	2
C. Commercial	1	2
D. Religious	1	2
E. Industrial	1	2
F. Multi-family residential	1	2
G. Single-family residential	1	2
H. Educational	1	2
I. Recreational	1	2
J. Hospital/Medical	1	2
K. Other	1	2
L. Planned unit developments	1	2
M. Transportation facilities	1	2

30. Indicate your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.
(1) No change (2) Decrease 10% (3) Decrease 11% to 25%
(4) Decrease more than 25% (5) Increase 10% (6) Increase 11% to 25%
(7) Increase 26% to 50% (8) Increase over 50%

31. What do you think will be the change in the number of graduates from architectural schools your firm will employ?

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	1	2	3	4	5	6
B. Within next 5 years	1	2	3	4	5	6
C. Within next 10 years	1	2	3	4	5	6

32. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?
(1) Yes (2) No

33. If your answer to Question 32 is "no", how many of the following types would you have been able to employ? Check one number for each type.

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	1	2	3	4	5	6	7
B. Registered engineers	1	2	3	4	5	6	7
C. Graduate architects (not registered)	1	2	3	4	5	6	7
D. Interior designers	1	2	3	4	5	6	7
E. Landscape architects	1	2	3	4	5	6	7
F. Draftsmen	1	2	3	4	5	6	7
G. Planners	1	2	3	4	5	6	7
H. Specification writers	1	2	3	4	5	6	7
I. Estimators	1	2	3	4	5	6	7
J. Construction administrators	1	2	3	4	5	6	7
K. Delineators	1	2	3	4	5	6	7
L. Other architectural technicians	1	2	3	4	5	6	7
M. Engineering technicians	1	2	3	4	5	6	7

34. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of:

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	1	2	3	4	5
B. Building equipment and construction	1	2	3	4	5
C. Structural design	1	2	3	4	5
D. Drafting and delineation	1	2	3	4	5
E. Specifications and contract documents	1	2	3	4	5
F. Computer technology	1	2	3	4	5
G. Meeting and getting along with people, including clients	1	2	3	4	5

35. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architect?
(1) 0 (2) 1 (3) 2 (4) 3 (5) 4 (6) More than 4

36. Would you hire junior college architectural technician students on an on-the-job training program?
(1) Yes (2) No

37. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?
(1) 0 (2) 1 (3) 2 (4) 3 (5) 4 (6) More than 4

38. Would you hire vocational-technical architectural technician students on an on-the-job training program?
(1) Yes (2) No

39. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?
(1) 0 (2) 1 (3) 2 (4) 3 (5) 4 (6) More than 4

40. Would you hire high school trained architectural technician students on an on-the-job training program?
(1) Yes (2) No

41 What are the starting salaries currently being paid to:

	Under $6,000	$6,001- $8,000	$8,001- $10,000	$10,001- $12,500	$12,501- $15,000	Above $15,000
A. Registered architects	1	2	3	4	5	6
B. Graduate architects (not registered)	1	2	3	4	5	6
C. Senior draftsmen	1	2	3	4	5	6
D. Intermediate draftsmen	1	2	3	4	5	6
E. Junior college trained architectural technicians	1	2	3	4	5	6
F. Vocational-technical trained architectural technicians	1	2	3	4	5	6
G. High school trained architectural technicians	1	2	3	4	5	6

Appendix II
THE FOLLOWING OBSERVATIONS APPEAR EVIDENT IN THE FINDINGS OF THE SURVEY RESULTS FOR FLORIDA ARCHITECTS

1. The profile of an architect in the State of Florida indicates the following characteristics: male, caucasian, between the ages 30 and 49, holds a bachelor's degree from an out-of-state five-year architectural school curriculum, and is primarily affiliated with an architectural firm.

2. Only one out of twenty was under 30 years of age and slightly more than 27% were over age 50.

3. Eight out of every ten had at least a bachelor's degree.

4. Nine out of every ten graduated from a 4-year or 5-year architectural school curriculum.

5. One half were graduates from out-of-state programs and approximately 38% were graduates from the University of Florida and 3% from the University of Miami.

6. More than seven out of ten were primarily affiliated with an architectural firm and more than one out of ten were primarily affiliated with an architectural-engineering firm.

7. Over 70% were primarily engaged in the special areas of administration and design. Over 50% also listed the areas of contact and business promotion as well as contract drawings as primary special areas.

8. Two out of ten were registered to practice architecture for under 5 years; whereas, four out of ten were registered for over 15 years.

9. Fifty percent were registered to practice architecture in Florida for under ten years.

10. Forty-three percent received a net income salary in 1972 of under $20,000; whereas, twenty-seven percent earned $20,001-30,000; and thirty percent earned over 30,000

11. Over six out of ten were seriously interested in continuing or advancing their architectural training.

12. Over five out of ten were in firms where the legal organization is an individual ownership. Partnerships and corporations were each represented by two out of ten.

13. More than five out of ten indicated that the number of personnel presently in the firm was 1-5; two out of ten indicated 6-10; one out of ten indicated 11-15; and two out of ten indicated 16 and above.

14. More than two out of ten indicated they had more than 4 registered architects in the firm; seven out of ten indicated 1-3 registered architects, and only one out of ten indicated that there were none in the firm.

15. Fifty percent indicated that their firm had a dollar volume of contract construction for 1972 of under 5 million; thirty percent had a volume of 5-20 million; thirteen percent had a volume of 20-60 million; and only four percent had a volume of over 60 million.

16. More than 53% indicated that their firm was established for less than ten years, with 37% of that total during the last five years.

17. More than seven out of ten indicated an increase in the volume of work to be done by their firm in 1975 as compared to 1972; only one out of ten indicated a decrease, and almost two out of ten indicated that they perceived no change in the work volume.

18. Almost seven out of ten indicated an increase in the number of graduates from architectural schools that they will employ in the next three years, in the next five years, and within the next ten years. One out of four indicated that there will be no change for each time period, and an average of 4% indicated there would be a decrease for the given time periods.

19. Over seven out of ten have found in the past two years that there have not been enough qualified persons with architectural training available to serve the needs of their practice.

20. More than six out of ten would have employed at least one more registered architect had they been available and more than eight out of ten would have hired at least one more graduate architect (not registered).

21. Eight out of ten indicated that junior college architectural technicians are necessary in a firm to provide support services for each graduate architect.

22. Over seven out of ten indicated that their firm would hire junior college architectural students for on-the-job training.

23. Over seven out of ten indicated vocational-technical architectural technicians are necessary in a firm to provide support services.

24. Just over six out of ten indicated they would hire vocational-technical architectural technician students in an on-the-job training program.

25. Slightly less than four out of ten indicated high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect.

26. Slightly more than four out of ten would hire high school trained architectural technician students on an on-the-job training program.

27. Slightly less that nine out of ten registered architects have starting salaries greater than $10,000 of which two out of ten were earning more than $15,000; whereas, one out of ten were earning less than $10,000 their first year. Slightly more than four out of ten graduate architects were earning more than $10,000 for the first year and more than five out of ten were earning less than $10,000.

Appendix III
Instrument Used During Campus Visits to Existing Architectural Training Programs

University of Florida

A. FACULTY

1. What is the student-teacher ratio? 15.75 - 1

2. What is the number of FTE classroom teacher positions; also any projections.

   42.17
   57.5 projected for 1977

3. What is the number of FTE administrative positions?

   2.25

4. What is the number of FTE graduate assistants?

   2.0

5. What is the number of full-time: tenured faculty; non-tenured; and also part-time: tenured; non-tenured.

   a. 20 tenured full-time
   b. 0 tenured part-time
   c. 21 non-tenured full-time
   d. 2 non-tenured part-time

6. What has been the turnover of professors in the last five years?

   17 (5 due to deaths)

B. CONTROL

1. **Where in the organizational structure is the program?**

   The Department of Architecture was in the Division of Building Arts in the College of Architecture and Fine Arts.

2. **Who is the administrator responsible for the program?**

   Arnold F. Butt, Chairman

3. **What is the basis for funding the program?**

   Funding was based on the allotment for the College

4. **What is the level of funding for the program?**

   $634,572.00

5. **What state, federal, or other projects are** being conducted?

   The Department is involved in at least three projects using state funds and eleven other projects funded by various organizations and foundations

6. a. **When was the program started?**

      1925

   b. **When did it attain accreditation?**

      1948

C. ADMISSIONS

1. **What are the admission standards to the program?**

   Undergraduates:

   a. Students must have had a grade point average of 2.75 or better
   b. Students were evaluated on past experiences

   Graduates

   a. Graduate students must have had a grade point average of 3.0 or better to be admitted
   b. Students must have had a score of 1000 on the Graduate Record Exam
   c. Interviews and Experiences were also taken into consideration

2. **What methods of recruiting have been employed to attract students?**

   The Department of Architecture has in the past recruited minority (black) students in high schools.

3. **What is the number of students that are presently enrolled at each level?**

Lower Level	158 FTE
Upper Level	214 FTE
Graduate Level	99.5 FTE

4. **How have admission standards and procedures changed in the last five years?**

   a. The grade point average rose from 2.0 to 2.8 for entrance to the third year
   b. Interviews of students were introduced
   c. Quotas were added to prevent discrimination by the department in selecting only University of Florida students to the third year

5. **How have you dealt with pressures to increase the number of minority and women in existing programs?**

   The Department has made efforts to increase the minority students and has had no pressure to increase the number of women.

D. FACILITIES

1. What is your classroom space per student?

   The classroom space is assigned by the registrar and was adequate at the time of this study.

2. What is your lab space per student?

   The lab space was 54.67 square feet per full-time equivalent student and was adequate for undergraduates, but there was overcrowding at the graduate level. The state formula calls for 84 square feet per student.

3. What is your total space allocation?

   The total space allocation was 48,000 square feet of which 5,627 square feet was assigned classroom space and 10,000 square feet was in temporary buildings.

4. Is the space allocation adequate for present needs?

   Undergraduate students were in need of more space.

5. Is the department centralized and close to other university facilities?

   No, the department had two centers about one-half mile apart. Graduate students were in the center furthest from the library and central office.

6. Is equipment up to date and adequate for present student needs?

   No, much of the equipment was from other departments. Many of the drawing tables and lockers were not designed for drafting.

E. CURRICULUM

1. a. **What areas of specialization are offered?**

   Architectural design, Architectural history
   Architectural structures, Environmental systems
   Architectural preservation, Urban design

   b. **Which ones have been implemented in the last five years?**

   A two-year master's was implemented in 1973.

   c. **Are any in the stage of being phased out?**

   The five-year bachelors degree will be phased out by 1975

2. a. **Are night courses offered that are up-to-date and at preferred times?**

   None

   b. **Are any extension courses offered?**

   None

3. **What communication do you have with vocational-technical schools, both proprietary and state affiliated in the surrounding areas?**

   The Department was not interested in programs that do not lead to architectural degrees. The Department does maintain contact with Miami-Dade Junior College

4. **What specific differences exist between graduate and undergraduate studies?**

   In the previous five-year program there was no basic diversification. Under the new 6-year program old general survey material was compressed into four years and two years of specialization are offered at the graduate level.

5. a. **What percentage complete degrees on time at all levels?**

   Eighty percent of the University of Florida students and Miami-Dade transfer students complete the 5-year degree on time.

   b. **What percentage complete degrees in relation to the number that originally enrolled?**

   No data was available

   c. **What percentage of those completing degrees pass the state licensing examination last year? in the past five years?**

   No data was available

F. SELF-STUDY

1. **What methods of feedback from industry or graduates do you have?**

   a. Feedback is given by the State Board of Architecture.
   b. Reports from the University of Florida Architecture Guild, comprised of 60 alumni architects; given formal and informal feedback to the program.

2. **What is the status of any cooperative on-the-jobs employment programs?**

   There was an effort going on at the time of study to initiate a program.

3. **Have graduates found jobs in areas in which they specialized?**

   Graduates have found four to six job offers in areas in which they specialized.

G. LIBRARY

1. **What is the extent of library holdings?**

   37,274 volumes (includes music)
   361 subscriptions (includes music)

2. **What is your yearly library budget? What is your annual acquisition budget?**

   $7,525 for architecture and $9,000 special appropriations

3. **Does the library adequately fill the needs of those presently enrolled in the program?**

   Yes, no serious holes in the collection

4. **How much expansion room does your present library have?**

   The library has room for a 40% expansion in the stocks and another 30% if the regional planning center is moved.

Appendix III
Instrument Used During Campus Visits to Existing Architectural Training Programs

University of Miami

A. FACULTY

1. What is the student-teacher ratio? 15-1

2. What is the number of FTE classroom teacher positions; also any projections.

   19.0
   No projections available however, with expansion enrollments are likely to increase proportionately.

3. What is the number of FTE administrative positions?

   1.66

4. What is the number of FTE graduate assistants?

   None

5. What is the number of full-time: tenured faculty; non-tenured; and also part-time: tenured; non-tenured.

   a. 7 tenured full-time
   b. 0 tenured part-time
   c. 8 non-tenured full-time
   d. 14 non-tenured part-time

6. What has been the turnover of professors in the last five years?

   2 retired, 3 resigned, 9 hired.

B. CONTROL

1. **Where in the organizational structure is the program?**

   The Department was in the School of Engineering and Environmental Design

2. **Who is the administrator responsible for the program?**

   Ralph Warburton, Associate Dean for Architecture and Planning.

3. **What is the basis for funding the program?**

   Funding was based on the enrollment and allotment by the University.

4. **What is the level of funding for the program?**

   The level of funding was $300,000 per year exclusive of library funds, three salaries, rent on the building, and shop costs.

5. **What state, federal, or other projects are being conducted?**

   No research was being conducted at the time of this study. Major proposals included a solar energy project, a crime prevention study, a building codes study, and a flood plan housing study.

6. a. **When was the program started?**

      1962

   b. **When did it attain accreditation?**

      The department was preparing for an accreditation visit in the Spring of 1974

C. ADMISSIONS

1. What are the admission standards to the program?

   Students are admitted to the program as freshmen.
   A 2.5 grade point average was accepted for undergraduate transfer students.

2. What methods of recruiting have been employed to attract students?

   The UM faculty made visits to local schools.

3. What is the number of students that are presently enrolled at each level?

   There was only one level in architecture and 234 students were enrolled. The optimum was considered to be 400-500 students.

4. How have admission standards and procedures changed in the last five years?

   From 1968 to 1970, architecture enrollments were held down. From 1972, expansion is limited only by the number of qualified students. Only one Master's degree program was implemented in the last year at UM (Urban and Regional Planning), which is administered by the Department of Architecture and Architectural Engineering.

5. How have you dealt with pressures to increase the number of minority and women in existing programs?

   There hasn't been any pressure on the department to increase minority enrollment because the only two black registered architects in the state are in the faculty and are influencing black enrollment. Eleven percent of the architecture student population was female.

D. FACILITIES

1. What is your classroom space per student?

   The classroom space per student was 23.2 square feet.

2. What is your lab space per student?

   The lab space per student was 43.0 square feet

3. What is your total space allocation?

   The total space allocation was 20,000 square feet

4. Is the space allocation adequate for present needs?

   No, more lab and classroom space was needed

   General centrally assigned classroom space was adequate

5. Is the department centralized and close to other university facilities?

   Yes

6. Is equipment up to date and adequate for present student needs?

   Yes

E. CURRICULUM

1. a. **What areas of specialization are offered?**
   There was a strong emphasis on structures due to the engineering origin. There was no formal specialization. Architectural students were encouraged to take electives grouped around urban and regional planning, landscaping, and interior design.

   b. **Which ones have been implemented in the last five years?**

   Urban and regional Planning

   c. **Are any in the stage of being phased out?**

   No

2. a. **Are night courses offered that are up-to-date and at preferred times?**
   Yes, also during the lunch hour courses were offered.

   b. **Are any extension courses offered?**
   None

3. **What communication do you have with vocational-technical schools, both proprietary and state affiliated in the surrounding areas?**

   The department kepts close communication with the Miami-Dade Community College Department of Architecture and other important local institutions.

4. **What specific differences exist between graduate and undergraduate studies?**

   Not applicable - There is no master's degree offered in architecture at the University of Miami.

5. a. **What percentage complete degrees on time at all levels?**
   No data was available

   b. **What percentage complete degrees in relation to the number that originally enrolled?**
   No data was available

   c. **What percentage of those completing degrees pass the state licensing examination last year? in the past five years?**
   No data was available

F. SELF-STUDY

1. **What methods of feedback from industry or graduates do you have?**

   Informal contact from local architects and alumni was the major source of feedback.

2. **What is the status of any cooperative on-the-jobs employment programs?**

   A formal work-study program had been operating. A student may work up to nine months or three quarters.

3. **Have graduates found jobs in areas in which they specialized?**

   Yes, 81% of alumni are actively involved in the architectural profession.

G. LIBRARY

1. What is the extent of library holdings?

20,000 volumes
10,835 faculty holdings
38,000 slides

2. What is your yearly library budget? What is your annual acquisition budget?

The library budget was $5,181 per year over the last five years This did not include Journals, or acquisitions in related fields such as engineering or sociology, or the Center for Urban and Regional Studies collection.

3. Does the library adequately fill the needs of those presently enrolled in the program?

Yes

4. How much expansion room does your present library have?

The main library had adequate expansion area.

Appendix III
Instrument Used During Campus Visits to Existing Architectural Training Programs

Miami-Dade Junior College

A. FACULTY

1. What is the student-teacher ratio? 25 - 1

2. What is the number of FTE classroom teacher positions; also any projections.

   a. 210
   b. No projections

3. What is the number of FTE administrative positions?

   1

4. What is the number of FTE graduate assistants?

   Not applicable

5. What is the number of full-time: tenured faculty; non-tenured; and also part-time: tenured; non-tenured.

   14 tenured

6. What has been the turnover of professors in the last five years?

   5

B. CONTROL

1. Where in the organizational structure is the program?

   The Department was a part of the Technical Division of the department generating its own budget and doing its own hiring.

2. Who is the administrator responsible for the program?

   The Dean of Occupational Education at the South Campus was responsible for the program.

3. What is the basis for funding the program?

   The Department received special funding as a specialized occupation program.

4. What is the level of funding for the program?

   No data available

5. What state, federal, or other projects are being conducted?

   None

6. a. When was the program started?

   North Campus - A.S. 1963 South Campus - A.S. 1967
   North Campus - A.A. 1965 South Campus - A.A. 1967

   b. When did it attain accreditation?

C. ADMISSIONS

1. **What are the admission standards to the program?**

   The program had open admissions where anyone with a high school diploma or equivalent achievement would be allowed into the program on the basis of space available

2. **What methods of recruiting have been employed to attract students?**

   The Department has conducted lectures at senior high schools and sent out brochures.

3. **What is the number of students that are presently enrolled at each level?**

   North Campus - 350 pre-architecture
   80 in occupational architecture
   South Campus - 250 pre-architecture
   250 occupational architecture

4. **How have admission standards and procedures changed in the last five years?**

   No

5. **How have you dealt with pressures to increase the number of minority and women in existing programs?**

   The Department has given speech at primarily black schools, though it has had no real pressure to do so. In the program there was a high percentage of students will Spanish surnames (75%) and there were several women (6%).

D. FACILITIES

1. What is your classroom space per student?

   Classroom space was assigned as needed.

2. What is your lab space per student?

   There were 5 lab facilities at the North Campus, 4 lab facilities at the South Campus, which came to an average of 36 square feet per student

3. What is your total space allocation?

   Unknown

4. Is the space allocation adequate for present needs?

   Marginal. Space was dictating enrollment size of courses

5. Is the department centralized and close to other university facilities?

   Each of the separate campuses were autonomous and centralized

6. Is equipment up to date and adequate for present student needs?

   Yes

E. CURRICULUM

1. a. What areas of specialization are offered?
   Architectural Technology A.S. -1963 Pre-architecture A.A. 1966
   Pre-design A.A. & A.S.
   Pre-landscape A.A. & Landscape Development A.S.
   Pre-building Construction A.A. and Building Construction Tech A.S.
   Pre-architecture Engineering A.A.
   b. Which ones have been implemented in the last five years?

   c. Are any in the stage of being phased out?

   No

2. a. Are night courses offered that are up-to-date and at preferred times?
   Yes

   b. Are any extension courses offered?
   Between the north and south campuses students can have taken the the full program by enrolling at either campus

3. What communication do you have with vocational-technical schools, both proprietary and state affiliated in the surrounding areas?

   None

4. What specific differences exist between graduate and undergraduate studies?

   Not applicable

5. a. What percentage complete degrees on time at all levels?
   Eighty percent finish their A.A. degree in the prescribed two-year program
   b. What percentage complete degrees in relation to the number that originally enrolled?
   Fifty percent of these students originally enrolled were completing their degree
   c. What percentage of those completing degrees pass the state licensing examination last year? in the past five years?
   Not applicable

F. SELF-STUDY

1. **What methods of feedback from industry or graduates do you have?**

   The followup program was informal and in need of development

2. **What is the status of any cooperative on-the-jobs employment programs?**

   There was no formal on the job program; however, more than 70% of the students were employed

3. **Have graduates found jobs in areas in which they specialized?**

   Yes, many graduates were employed before finishing the program.

G. LIBRARY

1. What is the extent of library holdings?

   The library has in the past obtained whatever the department has requested. At the North Campus there is a curriculum (faculty) library open for student use.

2. What is your yearly library budget? What is your annual acquisition budget?

   The library budget is not broken out by individual departments.

3. Does the library adequately fill the needs of those presently enrolled in the program?

   Yes

4. How much expansion room does your present library have?

   Yes

Appendix IV

MIAMI/FT. LAUDERDALE/WEST PALM BEACH AREA

1. Zip codes: 330, 331, 333, 334

2. Sex: (1) Male 269 (99) (2) Female 5 (1)

3. Ethnic background

(1) Caucasian 244 (89) (2) Negroid 0 (0) (3) Oriental 2 (0)
(4) Spanish surname 25 (9) (5) Other 2 (0)

4. Age:

(1) Under 20 0 (0)
(2) 20 through 29 14 (5)
(3) 30 through 39 65 (23)
(4) 40 through 49 107 (39)
(5) 50 through 59 59 (21)
(6) 60 and above 29 (10)

5. What is the highest level of education you have attained at this time?

(1) High school or less	7 (2)
(2) 1 year or less of college	9 (3)
(3) 2 to 3 years of college (including two year degree)	18 (6)
(4) 4 or more years of college (no degree)	22 (8)
(5) Bachelor's degree	158 (57)
(6) Graduate work without advanced degree	22 (8)
(7) Master's degree	35 (12)
(8) Doctorate	3 (1)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum	29 (12)
(2) 5-year architectural school curriculum	173 (75)
(3) Some other architectural school curriculum	11 (4)
(4) Business or related fields	1 (0)
(5) Engineering	10 (4)
(6) Interior design	0 (0)
(7) Landscape architecture	0 (0)
(8) Planning (urban and/or regional)	1 (0)
(9) Other	4 (1)

7. If you also have a Master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	8 (17)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two-year Master's program	2 (4)
(3) Combined, single-school, Bachelor's/Master's architectural curriculum in any other combination	7 (15)
(4) Architecture, but not from a combined program	19 (40)
(5) Business or related fields	2 (4)
(6) Engineering	2 (4)
(7) Interior Design	0 (0)
(8) Landscape Architecture	1 (2)
(9) Planning (urban and/or regional)	2 (4)
(10) Other	4 (8)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Community College	2 (0)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	71 (26)	(5) Other (Out of Florida	152 (57)
(3) University of Miami	17 (6)	(6) None	23 (8)

9. With what type of organization are you principally affiliated? Check one number for your primary activity

(1) Architectural firm	201 (74)	(6) Architectural-engineering firm	3 (1)
(2) Engineering firm	38 (14)	(7) Developer	0 (0)
(3) Contractor	0 (0)	(8) Business	0 (0)
(4) Landscape architectural firm	13 (4)	(9) Planning firm	5 (1)
(5) Government	2 (0)	(10) Educational institution	6 (2)
		(11) Other	2 (0)

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	124 (49)	(4) Individual practice-corporation	14 (5)
(2) Partnership	51 (20)	(5) Partnership-corporation	18 (7)
(3) Corporation	44 (17)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	41 (22)	(6) Business	8 (4)
(2) Architectural-engineering firm	23 (12)	(7) Landscape architectural firm	1 (0)
(3) Engineering firm	6 (3)	(8) Planning firm	26 (14)
(4) Developer	48 (26)	(9) Government	3 (1)
(5) Contractor	8 (4)	(10) Educational institution	5 (2)
		(11) Other	12 (6)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	125 (47)	(4) Officer	33 (12)
(2) Partner	56 (21)	(5) Employee only	35 (13)
(3) Corporate director	13 (4)	(6) Faculty only	3 (1)

13. Mark the special area(s) which you are primarily engaged. (Percentage is based on 665 responding)

(1) Administration	210 (16)	(6) Contract drawings	140 (10)
(2) Contact and business promotion	160 (12)	(7) Specifications	125 (9)
(3) Feasibility	116 (8)	(8) Estimating	75 (5)
(4) Programming	103 (7)	(9) Construction observation	134 (10)
(5) Design	211 (16)	(10) Other	37 (2)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	54 (20)
(2) 6-10 years	45 (16)
(3) 11-15 years	44 (16)
(4) Over 15 years	125 (46)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	79 (29)
(2) 6-10 years	53 (19)
(3) 11-15 years	44 (16)
(4) Over 15 years	95 (35)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	18 (6)	(4) $20,001-30,000	76 (38)
(2) $10,001-15,000	33 (12)	(5) $30,001-50,000	52 (19)
(3) $15,001-20,000	50 (18)	(6) Above $50,000	38 (14)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 163 (60) (2) No 106 (39)

18. What is your preference for main topics of courses? Check one number for each topic.

		Would probably take	Might take	Would probably not take
A.	Computer applications	29 (19)	46 (31)	71 (48)
B.	Construction technology	48 (34)	52 (36)	41 (29)
C.	Housing financing and development	57 (39)	51 (35)	36 (25)
D.	Interior Design	24 (17)	47 (34)	67 (48)
E.	Management of architect's office	51 (35)	49 (34)	44 (30)
F.	Materials and new applications	69 (46)	48 (32)	31 (20)
G.	Mechanical/Electrical building systems	28 (19)	50 (34)	67 (46)
H.	Site design and planning	73 (50)	37 (25)	36 (24)
I.	Urban regional planning	72 (48)	48 (32)	30 (20)
J.	Urban design	59 (41)	56 (39)	28 (19)
K.	Other	28 (26)	49 (45)	30 (28)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule

		Would probably Attend	Might Attend	Would probably Not Attend
A.	2 evenings per week (7:00 - 10:00)	56 (36)	35 (24)	56 (38)
B.	2 evenings per week (4:00 - 6:00)	16 (11)	43 (31)	77 (56)
C.	1 evening a week (7:00 - 10:00)	90 (63)	36 (25)	16 (11)
D.	1 evening a week (4:00 - 6:00)	45 (31)	34 (23)	63 (44)
E.	Saturday (9:00 a.m. 12:00 or all day	40 (28)	31 (22)	70 (49)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 33 (20) (2) No 133 (80)

21. Are you interested in obtaining academic credits?

(1) Yes 58 (35) (2) No 107 (65)

22. Are you interested in obtaining an advanced degree in:

(1) Architecture	25 (83)	(5) Urban and regional planning	0 (0)
(2) Architectural engineering	5 (16)	(6) Other	0 (0)
(3) Landscape architecture	0 (0)	(7) None	0 (0)
(4) Urban design	0 (0)		

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	126 (55)	(4) Individual ownership-corporation	10 (4)
(2) Partnership	42 (18)	(5) Partnership-corporation	14 (6)
(3) Corporation	36 (15)		

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	132 (51)	(6) 26-30	2 (0)
(2) 6-10	39 (17)	(7) 31-40	5 (2)
(3) 11-15	17 (7)	(8) 41-50	2 (0)
(4) 16-20	10 (4)	(9) 51 and above	14 (6)
(5) 21-25	8 (3)		

25. How many of each of the following types of individuals are in the firms? Check one number for each type. (Reported only in percentages, based on the number of responses to each type)

		0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A.	Registered architects	7	72	13	3	0	1	0	0
B.	Registered engineers	75	13	6	2	0	1	0	0
C.	Graduate architects (not registered)	47	40	7	2	2	0	0	0
D.	Interior designers	75	23	1	0	0	0	0	0
E.	Landscape architects	86	12	1	0	0	0	0	0
F.	Senior draftsmen	30	50	9	3	2	1	0	0
G.	Junior draftsmen	39	45	7	4	1	0	0	0
H.	Planners	60	34	4	0	0	0	0	0
I.	Specification writers	55	42	2	0	0	0	0	0
J.	Estimators	70	27	1	0	0	0	0	0
K.	Construction administrators	66	25	4	2	1	0	0	0
L.	Delineators	67	30	2	0	0	0	0	0
M.	Other architectural technicians	77	14	5	1	0	0	0	0
N.	Engineering technicians	80	11	2	2	2	0	0	0
O.	All others (clerical, accounting, maintenance, etc.)	25	54	9	4	1	1	1	2

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up through $1,000,000	44 (19)	(4) $20,000,001 - 60,000,000	40 (17)
(2) $1,000,001 - 5,000,000	69 (30)	(5) Over $60,000,000	14 (6)
(3) $5,000,001 - 20,000,000	59 (26)		

27. How many years has your firm been established?

(1) Up through 5	87 (38)	(4) 16-20	23 (10)
(2) 6-10	33 (14)	(5) 21 or more	48 (21)
(3) 11-15	36 (15)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item)

	Yes	No
A. Office buildings	165 (78)	46 (21)
B. Financial institutions	58 (29)	138 (70)
C. Commercial	166 (79)	43 (20)
D. Religious	71 (35)	127 (64)
E. Industrial	94 (46)	108 (53)
F. Multi-family residential	176 (80)	42 (19)
G. Single-family residential	134 (64)	75 (35)
H. Educational	71 (36)	126 (63)
I. Recreational	78 (39)	118 (60)
J. Hospital/Medical	60 (30)	135 (69)
K. Other	70 (38)	110 (61)
L. Planned unit developments	92 (47)	103 (52)
M. Transportation facilites	25 (13)	167 (87)

29. Indicate your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	34 (15)	(5) Increase 10%	22 (9)
(2) Decrease 10%	10 (4)	(6) Increase 11% to 25%	53 (23)
(3) Decrease 11% to 25%	8 (3)	(7) Increase 26% to 50%	51 (22)
(4) Decrease more than 25%	4 (1)	(8) Increase over 50%	42 (18)

30. What do you thing will be the change in the the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	6 (2)	63 (28)	123 (55)	26 (11)	2 (0)	3 (1)
B. Within next 5 years	6 (2)	51 (25)	34 (41)	47 (23)	10 (4)	5 (2)
C. Within next 10 years	9 (4)	57 (28)	51 (25)	41 (20)	25 (12)	17 (8)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 65 (29) (2) No 158 (70)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	34	55	8	0	0	0	0
B. Registered engineers	75	19	2	2	0	0	0
C. Graduate architects (not registered)	15	64	15	4	0	0	0
D. Interior designers	79	19	0	0	0	0	0
E. Landscape	85	12	2	0	0	0	0
F. Draftsmen	3	43	39	9	3	0	1
G. Planners	69	27	2	0	0	0	0
H. Specification writers	64	34	1	0	0	0	0
I. Estimators	86	12	0	0	0	0	0
J. Construction administrators	77	21	0	1	0	0	0
K. Delineators	66	32	0	0	0	0	0
L. Other architectural technicians	71	20	5	0	1	0	0
M. Engineering technicians	83	9	3	2	1	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	21(10)	68(34)	62(31)	22(11)	25(12)
B. Building equipment and construction	6(3)	38(19)	79(40)	41(21)	30(15)
C. Structural design	6(3)	33(17)	60(30)	49(25)	46(23)
D. Drafting and delineation	22(11)	72(36)	63(31)	19(9)	23(11)
E. Specifications and contract documents	5(2)	29(15)	49(25)	66(34)	44(22)
F. Computer technology	3(1)	10(5)	22(11)	24(12)	133(69)
G. Meeting and getting along with people, including clients	17(8)	76(39)	53(27)	13(6)	34(17)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	36 (17)	(4) 3	33 (15)
(2) 1	67 (31)	(5) 4	2 (0)
(3) 2	66 (31)	(6) More than 4	8 (3)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 161 (72) (2) No 61 (27)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	50 (24)	(4) 3	32 (15)
(2) 1	73 (35)	(5) 4	4 (1)
(3) 2	38 (18)	(6) More than 4	7 (3)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 138 (64) (2) No 76 (35)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	128 (63)	(4) 3	9 (4)
(2) 1	35 (17)	(5) 4	5 (2)
(3) 2	19 (9)	(6) More than 4	5 (2)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 86 (39) (2) No 131 (60)

40. Whac are the starting salaries currently being to:

	Under $6,000	$6,001- $8,000	$8,001- $10,000	$10,001- $12,500	$12,501- 15,000	Above $15,000
A. Registered architects	1 (0)	2 (1)	15 (7)	30 (15)	88 (44)	60 (30)
B. Graduate architects	2 (1)	15 (7)	62 (32)	65 (33)	45 (23)	3 (1)
C. Senior draftsmen	1 (0)	10 (5)	47 (23)	88 (44)	45 (22)	6 (3)
D. Intermediate draftsmen	6 (3)	56 (29)	86 (45)	35 (18)	6 (3)	0 (0)

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
E. Junior college trained architectural technicians	28 (15)	104 (59)	36 (20)	7 (4)	1 (0)	0 (0)
F. Vocational-technical trained architectural	62 (36)	88 (52)	15 (8)	3 (1)	0 (0)	0 (0)
G. High school trained architectural technicians	123 (78)	31 (19)	1 (0)	2 (1)	0 (0)	0 (0)

Appendix IV

ORLANDO/DAYTONA BEACH AREA

1. Zip codes: 320, 327, 328

2. Sex: (1) Male 87 (97) (2) Female 3 (3)

3. Ethnic background

(1) Caucasian 87 (98) (2) Negroid 0 (0) (3) Oriental 0 (0)
(4) Spanish surname 2 (2) (5) Other 0 (0)

4. Age:

(1) Under 20 0 (0)
(2) 20 through 29 7 (7)
(3) 30 through 39 30 (33)
(4) 40 through 49 32 (35)
(5) 50 through 59 13 (14)
(6) 60 and above 8 (8)

5. What is the highest level of education you have attained at this time?

(1) High school or less 4 (4)
(2) 1 year or less of college 1 (1)
(3) 2 to 3 years of college (including two year degree) 5 (5)
(4) 4 or more years of college (no degree) 6 (6)
(5) Bachelor's degree 65 (73)
(6) Graduate work without advanced degree 5 (5)
(7) Master's degree 3 (3)
(8) Doctorate 0 (0)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum 9 (11)
(2) 5-year architectural school curriculum 61 (74)
(3) Some other architectural school curriculum 3 (3)
(4) Business or related fields 0 (0)
(5) Engineering 6 (7)
(6) Interior design 1 (1)
(7) Landscape architecture 0 (0)
(8) Planning (urban and/or regional) 0 (0)
(9) Other 2 (2)

7. If you also have a Master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	0 (0)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two-year Master's program	0 (0)
(3) Combined, single-school, Bachelor's/Master's architectural curriculum in any other combination	0 (0)
(4) Architecture, but not from a combined program	4 (80)
(5) Business or related fields	0 (0)
(6) Engineering	0 (0)
(7) Interior Design	0 (0)
(8) Landscape Architecture	0 (0)
(9) Planning (urban and/or regional)	1 (20)
(10) Other	0 (0)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Community College	1 (1)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	38 (44)	(5) Other (Out of Florida	35 (40)
(3) University of Miami	0 (0)	(6) None	12 (16)

9. With what type of organization are you principally affiliated? Check one number for your primary activity

(1) Architectural firm	65 (73)	(6) Architectural-engineering firm	1 (1)
(2) Engineering firm	17 (19)	(7) Developer	0 (0)
(3) Contractor	0 (0)	(8) Business	0 (0)
(4) Landscape architectural firm	3 (3)	(9) Planning firm	1 (1)
(5) Government	1 (1)	(10) Educational institution	1 (1)
		(11) Other	1 (1)

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	30 (34)	(4) Individual practice-corporation	4 (4)
(2) Partnership	13 (15)	(5) Partnership-corporation	8 (9)
(3) Corporation	31 (36)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	11 (18)	(6) Business	2 (3)
(2) Architectural-engineering firm	10 (18)	(7) Landscape architectural firm	0 (0)
(3) Engineering firm	8 (13)	(8) Planning firm	14 (24)
(4) Developer	8 (13)	(9) Government	0 (0)
(5) Contractor	2 (3)	(10) Educational institution	0 (0)
		(11) Other	5 (8)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	35 (38)	(4) Officer	17 (18)
(2) Partner	14 (15)	(5) Employee only	18 (20)
(3) Corporate director	6 (6)	(6) Faculty only	0 (0)

13. Mark the special area(s) which you are primarily engaged. (Percentage is based on 665 responding)

(1) Administration	61 (15)	(6) Contract drawings	56 (13)
(2) Contact and business promotion	45 (11)	(7) Specifications	40 (9)
(3) Feasibility	28 (6)	(8) Estimating	21 (5)
(4) Programming	30 (7)	(9) Construction observation	40 (9)
(5) Design	70 (17)	(10) Other	12 (2)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	33 (38)
(2) 6-10 years	14 (15)
(3) 11-15 years	12 (13)
(4) Over 15 years	30 (34)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	38 (42)
(2) 6-10 years	16 (18)
(3) 11-15 years	11 (12)
(4) Over 15 years	24 (27)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	8 (9)	(4) $20,001-30,000	18 (20)
(2) $10,001-15,000	17 (19)	(5) $30,001-50,000	14 (15)
(3) $15,001-20,000	18 (20)	(6) Above $50,000	13 (14)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 62 (70) (2) No 26 (30)

18. What is your preference for main topics of courses? Check one number for each topic.

		Would probably take	Might take	Would probably not take
A.	Computer applications	9 (15)	24 (40)	27 (45)
B.	Construction technology	17 (27)	30 (48)	15 (24)
C.	Housing financing and development	18 (30)	26 (43)	16 (26)
D.	Interior Design	8 (14)	10 (17)	38 (67)
E.	Management of architect's office	34 (56)	15 (25)	11 (18)
F.	Materials and new applications	28 (45)	21 (34)	12 (19)
G.	Mechanical/Electrical building systems	9 (15)	19 (33)	29 (50)
H.	Site design and planning	31 (49)	19 (30)	13 (20)
I.	Urban regional planning	30 (49)	13 (21)	18 (29)
J.	Urban design	29 (47)	12 (19)	20 (32)
K.	Other	11 (32)	10 (29)	13 (38)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule

		Would probably Attend	Might Attend	Would probably Not Attend
A.	2 evenings per week (7:00 - 10:00)	17 (28)	16 (27)	26 (44)
B.	2 evenings per week (4:00 - 6:00)	6 (10)	15 (25)	38 (64)
C.	1 evening a week (7:00 - 10:00)	41 (64)	16 (25)	7 (11)
D.	1 evening a week (4:00 - 6:00)	19 (32)	13 (22)	27 (45)
E.	Saturday (9:00 a.m. 12:00 or all day	17 (27)	12 (19)	32 (52)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 15 (21) (2) No 55 (79)

21. Are you interested in obtaining academic credits?

(1) Yes 24 (35) (2) No 46 (65)

22. Are you interested in obtaining an advanced degree in:

(1) Architecture	9 (82)	(5) Urban and regional planning	0 (0)
(2) Architectural engineering	2 (18)	(6) Other	0 (0)
(3) Landscape architecture	0 (0)	(7) None	0 (0)
(4) Urban design	0 (0)		

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	32 (47)	(4) Individual ownership-corporation	2 (3)
(2) Partnership	9 (13)	(5) Partnership-corporation	5 (7)
(3) Corporation	20 (29)		

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	29 (42)	(6) 26-30	1 (1)
(2) 6-10	12 (17)	(7) 31-40	3 (4)
(3) 11-15	8 (11)	(8) 41-50	0 (0)
(4) 16-20	6 (8)	(9) 51 and above	8 (11)
(5) 21-25	1 (1)		

25. How many of each of the following types of individuals are in the firms? Check one number for each type. (Reported only in percentages, based on the number of responses to each type)

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	10	61	17	3	4	1	1	0
B. Registered engineers	73	11	11	0	0	0	1	1
C. Graduate architects (not registered)	40	40	12	4	1	0	0	0
D. Interior designers	75	25	0	0	0	0	0	0
E. Landscape architects	86	13	0	0	0	0	0	0
F. Senior draftsmen	27	55	9	6	0	0	0	0
G. Junior draftsmen	24	55	13	3	1	1	0	0
H. Planners	56	32	10	0	0	0	0	0
I. Specification writers	46	48	3	1	0	0	0	0
J. Estimators	58	34	5	1	0	0	0	0
K. Construction administrators	52	40	3	3	0	0	0	0
L. Delineators	62	34	3	0	0	0	0	0
M. Other architectural technicians	73	23	1	1	0	0	0	0
N. Engineering technicians	70	22	5	0	0	1	0	0
O. All others (clerical, accounting, maintenance, etc.)	27	50	6	9	0	0	3	3

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up through $1,000,000	10 (15)	(4) $20,000,001 - 60,000,000	8 (12)
(2) $1,000,001 - 5,000,000	16 (24)	(5) Over $60,000,000	2 (3)
(3) $5,000,001 - 20,000,000	29 (44)		

27. How many years has your firm been established?

(1) Up through 5	26 (38)	(4) 16-20	4 (5)
(2) 6-10	10 (14)	(5) 21 or more	16 (23)
(3) 11-15	12 (17)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item)

	Yes	No
A. Office buildings	51 (84)	10 (16)
B. Financial institutions	24 (40)	37 (60)
C. Commercial	50 (82)	11 (18)
D. Religious	34 (55)	27 (45)
E. Industrial	19 (31)	41 (69)
F. Multi-family residential	50 (84)	10 (16)
G. Single-family residential	31 (54)	27 (46)
H. Educational	34 (56)	26 (44)
I. Recreational	20 (35)	37 (65)
J. Hospital/Medical	19 (34)	37 (66)
K. Other	19 (36)	33 (64)
L. Planned unit developments	30 (52)	28 (48)
M. Transportation facilites	6 (10)	50 (90)

29. Indicate your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	15 (22	(5) Increase 10%	5 (7)
(2) Decrease 10%	0 (0)	(6) Increase 11% to 25%	16 (24)
(3) Decrease 11% to 25%	1 (1)	(7) Increase 26% to 50%	15 (22)
(4) Decrease more than 25%	1 (1)	(8) Increase over 50%	13 (19)

30. What do you thing will be the change in the the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	5 (7)	18 (26)	34 (50)	9 (13)	0 (0)	1 (1)
B. Within next 5 years	1 (1)	16 (25)	23 (37)	17 (27)	4 (6)	1 (1)
C. Within next 10 years	4 (6)	15 (24)	11 (18)	21 (34)	5 (8)	5 (8)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 18 (27) (2) No 47 (72)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	40	46	11	2	0	0	0
B. Registered engineers	55	39	4	0	0	0	0
C. Graduate architects (not registered)	13	57	20	9	0	0	0
D. Interior designers	87	12	0	0	0	0	0
E. Landscape	90	7	2	0	0	0	0
F. Draftsmen	9	33	40	13	4	0	0
G. Planners	58	37	4	0	0	0	0
H. Specification writers	66	33	0	0	0	0	0
I. Estimators	83	17	0	0	0	0	0
J. Construction administrators	73	24	2	0	0	0	0
K. Delineators	58	41	0	0	0	0	0
L. Other architectural technicians	68	22	9	0	0	0	0
M. Engineering technicians	75	19	5	0	0	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	6(11)	25(47)	13(24)	3(5)	6(11)
B. Building equipment and construction	3(5)	13(24)	20(37)	10(18)	7(13)
C. Structural design	1(1)	10(18)	23(43)	11(20)	8(15)
D. Drafting and delineation	6(11)	18(34)	19(35)	4(7)	6(11)
E. Specifications and contract documents	3(5)	9(17)	15(28)	14(27)	11(21)
F. Computer technology	0(0)	3(6)	8(16)	8(16)	30(61)
G. Meeting and getting along with people, including clients	4(7)	21(40)	13(25)	5(9)	9(17)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	11 (18)	(4) 3	12 (20)
(2) 1	14 (23)	(5) 4	1 (1)
(3) 2	20 (23)	(6) More than 4	1 (1)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 49 (79) (2) No 13 (21)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	16 (26)	(4) 3	11 (18)
(2) 1	17 (28)	(5) 4	2 (3)
(3) 2	13 (21)	(6) More than 4	1 (1)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 40 (63) (2) No 24 (37)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	38 (64)	(4) 3	0 (0)
(2) 1	11 (18)	(5) 4	2 (3)
(3) 2	5 (8)	(6) More than 4	3 (5)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 24 (38) (2) No 38 (62)

40. What are the starting salaries currently being to:

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
A. Registered architects	0 (0)	3 (5)	2 (3)	22 (39)	20 (35)	9 (16)
B. Graduate architects	1 (1)	8 (14)	30 (54)	14 (25)	2 (3)	0 (0)
C. Senior draftsmen	0 (0)	3 (5)	24 (42)	22 (39)	7 (12)	0 (0)
D. Intermediate draftsmen	2 (3)	27 (49)	22 (40)	4 (7)	0 (0)	0 (0)

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
E. Junior college trained architectural technicians	11 (23)	26 (56)	10 (21)	0 (0)	0 (0)	0 (0)
F. Vocational-technical trained architectural	18 (37)	29 (61)	1 (2)	0 (0)	0 (0)	0 (0)
G. High school trained architectural technicians	40 (89)	5 (11)	0 (0)	0 (0)	0 (0)	0 (0)

Appendix IV

TAMPA/ST. PETERSBURG/CLEARWATER/BRADENTON/SARASOTA/LAKELAND AREA

1. Zip codes: 335, 336, 337, 338

2. Sex: (1) Male 131 (97) (2) Female 4 (3)

3. Ethnic background

(1) Caucasian 130 (96)
(2) Negroid 0 (0)
(3) Oriental 1 (0)
(4) Spanish surname 4 (4)
(5) Other 0 (0)

4. Age:

(1) Under 20 1 (0)
(2) 20 through 29 9 (6)
(3) 30 through 39 37 (27)
(4) 40 through 49 66 (48)
(5) 50 through 59 14 (10)
(6) 60 and above 8 (5)

5. What is the highest level of education you have attained at this time?

(1) High school or less 5 (3)
(2) 1 year or less of college 1 (0)
(3) 2 to 3 years of college (including two year degree) 4 (3)
(4) 4 or more years of college (no degree) 9 (6)
(5) Bachelor's degree 94 (69)
(6) Graduate work without advanced degree 14 (10)
(7) Master's degree 8 (5)
(8) Doctorate 0 (0)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum 22 (17)
(2) 5-year architectural school curriculum 85 (66)
(3) Some other architectural school curriculum 8 (6)
(4) Business or related fields 4 (3)
(5) Engineering 5 (3)
(6) Interior design 0 (0)
(7) Landscape architecture 0 (0)
(8) Planning (urban and/or regional) 1 (0)
(9) Other 3 (2)

7. If you also have a Master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	2 (17)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two-year Master's program	3 (25)
(3) Combined, single-school, Bachelor's/Master's architectural curriculum in any other combination	1 (8)
(4) Architecture, but not from a combined program	3 (25)
(5) Business or related fields	0 (0)
(6) Engineering	0 (0)
(7) Interior Design	0 (0)
(8) Landscape Architecture	1 (8)
(9) Planning (urban and/or regional)	2 (17)
(10) Other	0 (0)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Community College	1 (0)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	51 (38)	(5) Other (Out of Florida	66 (50)
(3) University of Miami	2 (1)	(6) None	11 (8)

9. With what type of organization are you principally affiliated? Check one number for your primary activity

(1) Architectural firm	111 (86)	(6) Architectural-engineering firm	1 (0)
(2) Engineering firm	15 (38)	(7) Developer	0 (0)
(3) Contractor	1 (0)	(8) Business	0 (0)
(4) Landscape architectural firm	0 (0)	(9) Planning firm	1 (0)
(5) Government	2 (1)	(10) Educational institution	1 (0)
		(11) Other	3 (2)

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	65 (50)	(4) Individual practice-corporation	3 (2)
(2) Partnership	18 (13)	(5) Partnership-corporation	6 (4)
(3) Corporation	37 (28)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	18 (20)	(6) Business	3 (3)
(2) Architectural-engineering firm	9 (10)	(7) Landscape architectural firm	2 (2)
(3) Engineering firm	2 (2)	(8) Planning firm	17 (19)
(4) Developer	28 (32)	(9) Government	1 (1)
(5) Contractor	2 (2)	(10) Educational institution	1 (1)
		(11) Other	4 (4)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	69 (52)	(4) Officer	24 (18)
(2) Partner	18 (13)	(5) Employee only	14 (10)
(3) Corporate director	7 (5)	(6) Faculty only	0 (0)

13. Mark the special area(s) which you are primarily engaged. (Percentage is based on 665 responding)

(1) Administration	104 (14)	(6) Contract drawings	77 (11)
(2) Contact and business promotion	91 (13)	(7) Specifications	71 (10)
(3) Feasibility	61 (8)	(8) Estimating	42 (6)
(4) Programming	59 (8)	(9) Construction observation	66 (9)
(5) Design	108 (15)	(10) Other	19 (2)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	28 (20)
(2) 6-10 years	31 (23)
(3) 11-15 years	30 (22)
(4) Over 15 years	45 (33)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	36 (26)
(2) 6-10 years	32 (23)
(3) 11-15 years	34 (25)
(4) Over 15 years	32 (23)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	13 (9)	(4) $20,001-30,000	30 (22)
(2) $10,001-15,000	20 (15)	(5) $30,001-50,000	31 (23)
(3) $15,001-20,000	25 (19)	(6) Above $50,000	12 (9)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 96 (72) (2) No 37 (28)

18. What is your preference for main topics of courses? Check one number for each topic.

	Would probably take	Might take	Would probably not take
A. Computer applications	25 (29)	25 (29)	35 (42)
B. Construction technology	25 (28)	45 (51)	18 (21)
C. Housing financing and development	37 (43)	34 (40)	14 (17)
D. Interior Design	10 (12)	34 (41)	38 (47)
E. Management of architect's office	37 (45)	27 (32)	18 (23)
F. Materials and new applications	39 (44)	30 (34)	18 (22)
G. Mechanical/Electrical building systems	19 (22)	32 (38)	33 (40)
H. Site design and planning	35 (41)	32 (38)	17 (21)
I. Urban regional planning	31 (37)	30 (36)	21 (27)
J. Urban design	24 (30)	30 (37)	26 (33)
K. Other	20 (30)	31 (47)	15 (23)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule

	Would probably Attend	Might Attend	Would probably Not Attend
A. 2 evenings per week (7:00 - 10:00)	30 (38)	24 (30)	24 (30)
B. 2 evenings per week (4:00 - 6:00)	15 (19)	24 (31)	38 (49)
C. 1 evening a week (7:00 - 10:00)	62 (69)	24 (27)	3 (3)
D. 1 evening a week (4:00 - 6:00)	30 (37)	22 (27)	28 (35)
E. Saturday (9:00 a.m. 12:00 or all day	18 (23)	22 (28)	38 (48)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 21 (22) (2) No 73 (77)

21. Are you interested in obtaining academic credits?

(1) Yes 35 (37) (2) No 59 (62)

22. Are you interested in obtaining an advanced degree in:

(1) Architecture	18 (85)	(5) Urban and regional planning	0 (0)
(2) Architectural engineering	3 (14)	(6) Other	0 (0)
(3) Landscape architecture	0 (0)	(7) None	0 (0)
(4) Urban design	0 (0)		

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	60 (55)	(4) Individual ownership-corporation	7 (6)
(2) Partnership	13 (12)	(5) Partnership-corporation	5 (4)
(3) Corporation	23 (21)		

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	59 (55)	(6) 26-30	1 (0)
(2) 6-10	19 (17)	(7) 31-40	1 (0)
(3) 11-15	13 (12)	(8) 41-50	1 (0)
(4) 16-20	6 (5)	(9) 51 and above	2 (1)
(5) 21-25	5 (4)		

25. How many of each of the following types of individuals are in the firms? Check one number for each type. (Reported only in percentages, based on the number of responses to each type)

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	9	68	16	3	0	0	0	0
B. Registered engineers	85	11	2	0	0	0	0	1
C. Graduate architects (not registered)	56	34	5	3	0	0	0	0
D. Interior designers	74	24	1	0	0	0	0	0
E. Landscape architects	87	11	1	0	0	0	0	0
F. Senior draftsmen	30	56	9	4	0	0	0	0
G. Junior draftsmen	34	47	15	2	0	0	0	0
H. Planners	66	32	0	1	0	0	0	0
I. Specification writers	52	45	2	0	0	0	0	0
J. Estimators	63	35	1	0	0	0	0	0
K. Construction administrators	59	36	4	0	0	0	0	0
L. Delineators	67	28	3	0	0	0	0	0
M. Other architectural technicians	74	24	1	0	0	0	0	0
N. Engineering technicians	84	14	1	0	0	0	0	0
O. All others (clerical, accounting, maintenance, etc.)	21	66	9	2	0	0	0	0

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up through $1,000,000	28 (26)	(4) $20,000,001 - 60,000,000	8 (7)
(2) $1,000,001 - 5,000,000	33 (31)	(5) Over $60,000,000	3 (2)
(3) $5,000,001 - 20,000,000	34 (32)		

27. How many years has your firm been established?

(1) Up through 5	39 (36)	(4) 16-20	13 (12)
(2) 6-10	21 (19)	(5) 21 or more	12 (11)
(3) 11-15	22 (20)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item)

	Yes	No
A. Office buildings	86 (84)	16 (16)
B. Financial institutions	41 (45)	51 (55)
C. Commercial	82 (81)	20 (19)
D. Religious	34 (36)	60 (64)
E. Industrial	39 (41)	55 (59)
F. Multi-family residential	82 (82)	18 (18)
G. Single-family residential	51 (55)	42 (45)
H. Educational	54 (55)	44 (45)
I. Recreational	37 (39)	57 (61)
J. Hospital/Medical	32 (35)	59 (65)
K. Other	28 (33)	55 (67)
L. Planned unit developments	39 (43)	50 (57)
M. Transportation facilites	12 (14)	74 (86)

29. Indicate your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	13 (12)	(5) Increase 10%	11 (10)
(2) Decrease 10%	1 (1)	(6) Increase 11% to 25%	22 (21)
(3) Decrease 11% to 25%	2 (1)	(7) Increase 26% to 50%	30 (29)
(4) Decrease more than 25%	2 (1)	(8) Increase over 50%	22 (21)

30. What do you thing will be the change in the the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	6 (6)	26 (26)	55 (56)	9 (9)	2 (2)	1 (1)
B. Within next 5 years	5 (5)	24 (25)	39 (42)	18 (19)	5 (5)	4 (4)
C. Within next 10 years	6 (6)	20 (22)	33 (36)	15 (16)	10 (10)	10 (10)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 31 (29) (2) No 75 (70)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	37	46	14	1	0	0	0
B. Registered engineers	76	16	7	0	0	0	0
C. Graduate architects (not registered)	12	70	12	3	1	0	0
D. Interior designers	79	21	0	0	0	0	0
E. Landscape	87	9	1	0	0	1	0
F. Draftsmen	5	50	36	5	1	1	0
G. Planners	74	26	0	0	0	0	0
H. Specification writers	72	27	0	0	0	0	0
I. Estimators	85	14	0	0	0	0	0
J. Construction administrators	74	24	1	0	0	0	0
K. Delineators	70	27	1	0	0	0	0
L. Other architectural technicians	64	27	7	0	0	0	0
M. Engineering technicians	76	18	5	0	0	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	15 (16)	27 (30)	22 (24)	10 (11)	15 (16)
B. Building equipment and construction	6 (6)	20 (22)	30 (33)	19 (21)	14 (15)
C. Structural design	3 (3)	12 (13)	29 (33)	25 (28)	19 (21)
D. Drafting and delineation	14 (15)	26 (29)	25 (28)	9 (10)	15 (16)
E. Specifications and contract documents	4 (4)	12 (13)	26 (29)	27 (31)	18 (20)
F. Computer technology	3 (3)	4 (4)	12 (14)	6 (7)	61 (70)
G. Meeting and getting along with people, including clients	8 (9)	28 (32)	31 (35)	2 (2)	18 (20)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	22 (23)	(4) 3	14 (14)
(2) 1	28 (29)	(5) 4	3 (3)
(3) 2	27 (28)	(6) More than 4	0 (0)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 70 (68) (2) No 33 (32)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	37 (39)	(4) 3	10 (10)
(2) 1	22 (23)	(5) 4	3 (3)
(3) 2	22 (23)	(6) More than 4	0 (0)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 57 (57) (2) No 43 (43)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	61 (66)	(4) 3	6 (6)
(2) 1	16 (17)	(5) 4	3 (3)
(3) 2	5 (5)	(6) More than 4	1 (1)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 41 (41) (2) No 59 (59)

40. What are the starting salaries currently being to:

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
A. Registered architects	0 (0)	4 (5)	10 (12)	21 (26)	34 (43)	10 (12)
B. Graduate architects	1 (1)	21 (26)	29 (36)	22 (27)	6 (7)	0 (0)
C. Senior draftsmen	0 (0)	11 (12)	36 (40)	33 (37)	7 (8)	1 (1)
D. Intermediate draftsmen	8 (10)	36 (46)	27 (35)	6 (7)	0 (0)	0 (0)

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
E. Junior College trained architectural technicians	33 (47)	32 (45)	4 (5)	1 (1)	0 (0)	0 (0)
F. Vocational-technical trained architectural	42 (65)	18 (28)	3 (4)	1 (1)	0 (0)	0 (0)
G. High school trained architectural technicians	58 (92)	4 (6)	1 (1)	0 (0)	0 (0)	0 (0)

Appendix IV

GAINESVILLE/OCALA AREA

1. Zip codes: 326

2. Sex: (1) Male 27 (93) (2) Female 2 (7)

3. Ethnic background

(1) Caucasian 29 (100) (2) Negroid 0 (0) (3) Oriental 0 (0)
(4) Spanish surname 0 (0) (5) Other 0 (0)

4. Age:

(1) Under 20 0 (0)
(2) 20 through 29 1 (3)
(3) 30 through 39 9 (31)
(4) 40 through 49 6 (20)
(5) 50 through 59 8 (27)
(6) 60 and above 5 (17)

5. What is the highest level of education you have attained at this time?

(1) High school or less 0 (0)
(2) 1 year or less of college 0 (0)
(3) 2 to 3 years of college (including two year degree) 1 (3)
(4) 4 or more years of college (no degree) 1 (3)
(5) Bachelor's degree 16 (55)
(6) Graduate work without advanced degree 6 (20)
(7) Master's degree 4 (13)
(8) Doctorate 1 (3)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum 7 (25)
(2) 5-year architectural school curriculum 21 (75)
(3) Some other architectural school curriculum 0 (0)
(4) Business or related fields 0 (0)
(5) Engineering 0 (0)
(6) Interior design 0 (0)
(7) Landscape architecture 0 (0)
(8) Planning (urban and/or regional) 0 (0)
(9) Other 0 (0)

7. If you also have a Master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	0 (0)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two-year Master's program	1 (17)
(3) Combined, single-school, Bachelor's/Master's architectural curriculum in any other combination	1 (17)
(4) Architecture, but not from a combined program	3 (50)
(5) Business or related fields	1 (17)
(6) Engineering	0 (0)
(7) Interior Design	0 (0)
(8) Landscape Architecture	0 (0)
(9) Planning (urban and/or regional)	0 (0)
(10) Other	0 (0)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Community College	0 (0)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	20 (69)	(5) Other (Out of Florida	8 (27)
(3) University of Miami	0 (0)	(6) None	1 (3)

9. With what type of organization are you principally affiliated? Check one number for your primary activity

(1) Architectural firm	16 (57)	(6) Architectural-engineering firm	0 (0)
(2) Engineering firm	0 (0)	(7) Developer	0 (0)
(3) Contractor	0 (0)	(8) Business	0 (0)
(4) Landscape architectural firm	1 (3)	(9) Planning firm	2 (7)
(5) Government	0 (0)	(10) Educational institution	9 (32)
		(11) Other	0 (0)

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	9 (45)	(4) Individual practice-corporation	0 (0)
(2) Partnership	3 (15)	(5) Partnership-corporation	1 (5)
(3) Corporation	7 (35)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	6 (35)	(6) Business	1 (6)
(2) Architectural-engineering firm	0 (0)	(7) Landscape architectural firm	0 (0)
(3) Engineering firm	0 (0)	(8) Planning firm	2 (12)
(4) Developer	2 (12)	(9) Government	2 (12)
(5) Contractor	0 (0)	(10) Educational institution	1 (6)
		(11) Other	3 (17)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	12 (41)	(4) Officer	5 (17)
(2) Partner	3 (10)	(5) Employee only	3 (10)
(3) Corporate director	1 (3)	(6) Faculty only	5 (17)

13. Mark the special area(s) which you are primarily engaged. (Percentage is based on 665 responding)

(1) Administration	21 (16)	(6) Contract drawings	11 (8)
(2) Contact and business promotion	12 (9)	(7) Specifications	15 (11)
(3) Feasibility	12 (9)	(8) Estimating	8 (6)
(4) Programming	11 (8)	(9) Construction observation	15 (11)
(5) Design	17 (13)	(10) Other	7 (5)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	6 (21)
(2) 6-10 years	8 (28)
(3) 11-15 years	1 (3)
(4) Over 15 years	13 (46)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	6 (21)
(2) 6-10 years	10 (35)
(3) 11-15 years	1 (3)
(4) Over 15 years	11 (39)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	6 (21)	(4) $20,001-30,000	9 (32)
(2) $10,001-15,000	3 (10)	(5) $30,001-50,000	1 (3)
(3) $15,001-20,000	9 (32)	(6) Above $50,000	0 (0)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 19 (70) (2) No 8 (29)

18. What is your preference for main topics of courses? Check one number for each topic.

		Would probably take	Might take	Would probably not take
A.	Computer applications	6 (30)	9 (45)	5 (25)
B.	Construction technology	6 (33)	9 (50)	3 (16)
C.	Housing financing and development	8 (44)	4 (22)	6 (33)
D.	Interior Design	1 (6)	3 (17)	13 (76)
E.	Management of architect's office	7 (42)	5 (29)	5 (29)
F.	Materials and new applications	11 (61)	4 (22)	3 (16)
G.	Mechanical/Electrical building systems	4 (23)	8 (47)	5 (29)
H.	Site design and planning	7 (44)	6 (37)	3 (19)
I.	Urban regional planning	4 (22)	6 (33)	8 (44)
J.	Urban design	4 (25)	4 (25)	8 (50)
K.	Other	3 (23)	7 (54)	3 (23)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule

		Would probably Attend	Might Attend	Would probably Not Attend
A.	2 evenings per week (7:00 - 10:00)	4 (23)	6 (35)	7 (41)
B.	2 evenings per week (4:00 - 6:00)	3 (17)	1 (6)	13 (76)
C.	1 evening a week (7:00 - 10:00)	14 (73)	4 (21)	1 (5)
D.	1 evening a week (4:00 - 6:00)	5 (26)	7 (37)	7 (37)
E.	Saturday (9:00 a.m. 12:00 or all day	4 (22)	4 (22)	10 (55)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 3 (14) (2) No 18 (85)

21. Are you interested in obtaining academic credits?

(1) Yes 6 (28) (2) No 15 (71)

22. Are you interested in obtaining an advanced degree in:

(1) Architecture	5 (84)	(5) Urban and regional planning	0 (0)
(2) Architectural engineering	1 (17)	(6) Other	0 (0)
(3) Landscape architecture	0 (0)	(7) None	0 (0)
(4) Urban design	0 (0)		

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	8 (53)	(4) Individual ownership-corporation	0 (0)
(2) Partnership	3 (20)	(5) Partnership-corporation	1 (7)
(3) Corporation	3 (20)		

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	9 (61)	(6) 26-30	0 (0)
(2) 6-10	2 (13)	(7) 31-40	0 (0)
(3) 11-15	2 (13)	(8) 41-50	0 (0)
(4) 16-20	2 (13)	(9) 51 and above	0 (0)
(5) 21-25	0 (0)		

25. How many of each of the following types of individuals are in the firms? Check one number for each type. (Reported only in percentages, based on the number of responses to each type)

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	7	73	20	0	0	0	0	0
B. Registered engineers	100	0	0	0	0	0	0	0
C. Graduate architects (not registered)	36	43	21	0	0	0	0	0
D. Interior designers	73	27	0	0	0	0	0	0
E. Landscape architect	91	9	0	0	0	0	0	0
F. Senior draftsmen	55	45	0	0	0	0	0	0
G. Junior draftsmen	28	71	0	0	0	0	0	0
H. Planners	90	10	0	0	0	0	0	0
I. Specification writers	58	42	0	0	0	0	0	0
J. Estimators	73	27	0	0	0	0	0	0
K. Construction administrators	60	40	0	0	0	0	0	0
L. Delineators	80	20	0	0	0	0	0	0
M. Other architectural technicians	90	10	0	0	0	0	0	0
N. Engineering technicians	100	0	0	0	0	0	0	0
O. All others (clerical, accounting, maintenance, etc.)	25	58	17	0	0	0	0	0

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up through $1,000,000	7 (47)	(4) $20,000,001 - 60,000,000	0 (0)
(2) $1,000,001 - 5,000,000	4 (27)	(5) Over $60,000,000	0 (0)
(3) $5,000,001 - 20,000,000	4 (27)		

27. How many years has your firm been established?

(1) Up through 5	8 (53)	(4) 16-20	0 (0)
(2) 6-10	4 (27)	(5) 21 or more	3 (20)
(3) 11-15	0 (0)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item)

	Yes	No
A. Office buildings	11 (73)	4 (27)
B. Financial institutions	6 (40)	9 (60)
C. Commercial	11 (73)	4 (27)
D. Religious	7 (54)	6 (46)
E. Industrial	7 (54)	6 (46)
F. Multi-family residential	9 (64)	5 (36)
G. Single-family residential	6 (46)	7 (54)
H. Educational	12 (75)	4 (25)
I. Recreational	3 (23)	10 (77)
J. Hospital/Medical	5 (36)	9 (64)
K. Other	5 (36)	9 (64)
L. Planned unit developments	2 (15)	11 (85)
M. Transportation facilites	0 (0)	12 (100)

29. Indicate your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	2 (13)	(5) Increase 10%	0 (0)
(2) Decrease 10%	1 (7)	(6) Increase 11% to 25%	3 (20)
(3) Decrease 11% to 25%	0 (0)	(7) Increase 26% to 50%	6 (40)
(4) Decrease more than 25%	0 (0)	(8) Increase over 50%	3 (20)

30. What do you thing will be the change in the the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	0 (0)	2 (13)	11 (73)	1 (7)	1 (7)	0 (0)
B. Within next 5 years	0 (0)	4 (33)	4 (33)	3 (25)	1 (8)	0 (0)
C. Within next 10 years	0 (0)	3 (25)	3 (25)	3 (25)	2 (17)	1 (8)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 4 (25) (2) No 12 (75)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	25	63	13	0	0	0	0
B. Registered engineers	72	29	0	0	0	0	0
C. Graduate architects (not registered)	11	45	45	0	0	0	0
D. Interior designers	100	0	0	0	0	0	0
E. Landscape	88	0	13	0	0	0	0
F. Draftsmen	0	45	56	0	0	0	0
G. Planners	75	25	0	0	0	0	0
H. Specification writers	72	29	0	0	0	0	0
I. Estimators	72	29	0	0	0	0	0
J. Construction administrators	75	25	0	0	0	0	0
K. Delineators	57	43	0	0	0	0	0
L. Other architectural technicians	67	22	11	0	0	0	0
M. Engineering technicians	86	15	0	0	0	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	2(15)	7(54)	2(15)	2(15)	0(0)
B. Building equipment and construction	1(8)	1(8)	8(61)	3(23)	0(0)
C. Structural design	0(0)	4(23)	7(58)	1(8)	0(0)
D. Drafting and delineation	1(8)	3(23)	7(54)	2(15)	0(0)
E. Specifications and contract documents	1(8)	1(8)	1(8)	10(71)	0(0)
F. Computer technology	0(0)	0(0)	2(17)	2(17)	8(67)
G. Meeting and getting along with people, including clients	0(0)	6(46)	5(38)	2(15)	0(0)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	1 (6)	(4) 3	2 (12)
(2) 1	6 (37)	(5) 4	0 (0)
(3) 2	6 (37)	(6) More than 4	1 (6)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 14 (87) (2) No 2 (12)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	1 (6)	(4) 3	2 (12)
(2) 1	6 (37)	(5) 4	0 (0)
(3) 2	6 (37)	(6) More than 4	1 (6)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 13 (81) (2) No 3 (19)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	4 (25)	(4) 3	3 (19)
(2) 1	7 (44)	(5) 4	0 (0)
(3) 2	2 (12)	(6) More than 4	0 (0)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 10 (62) (2) No 6 (37)

40. What are the starting salaries currently being to:

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
A. Registered architects	0 (0)	1 (7)	2 (14)	6 (43)	4 (28)	1 (7)
B. Graduate architects	0 (0)	4 (28)	7 (50)	3 (21)	0 (0)	0 (0)
C. Senior draftsmen	0 (0)	4 (28)	7 (50)	3 (21)	0 (0)	0 (0)
D. Intermediate draftsmen	2 (15)	9 (69)	2 (15)	0 (0)	0 (0)	0 (0)

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
E. Junior College trained architectural technicians	3 (27)	8 (73)	0 (0)	0 (0)	0 (0)	0 (0)
F. Vocational-technical trained architectural	5 (42)	7 (58)	0 (0)	0 (0)	0 (0)	0 (0)
G. High school trained architectural technicians	9 (82)	2 (18)	0 (0)	0 (0)	0 (0)	0 (0)

Appendix IV

JACKSONVILLE AREA

1. Zip codes: 322

2. Sex: (1) Male 66 (100) (2) Female 0 (0)

3. Ethnic background

(1) Caucasian 65 (99) (2) Negroid 0 (0) (3) Oriental 0 (0)
(4) Spanish surname 1 (1) (5) Other 0 (0)

4. Age:

(1) Under 20 0 (0)
(2) 20 through 29 5 (7)
(3) 30 through 39 15 (22)
(4) 40 through 49 25 (37)
(5) 50 through 59 15 (22)
(6) 60 and above 6 (9)

5. What is the highest level of education you have attained at this time?

(1) High school or less 2 (3)
(2) 1 year or less of college 2 (3)
(3) 2 to 3 years of college (including two year degree) 4 (6)
(4) 4 or more years of college (no degree) 3 (4)
(5) Bachelor's degree 43 (65)
(6) Graduate work without advanced degree 4 (6)
(7) Master's degree 8 (12)
(8) Doctorate 0 (0)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum 6 (10)
(2) 5-year architectural school curriculum 46 (78)
(3) Some other architectural school curriculum 3 (5)
(4) Business or related fields 0 (0)
(5) Engineering 0 (0)
(6) Interior design 0 (0)
(7) Landscape architecture 1 (1)
(8) Planning (urban and/or regional) 0 (0)
(9) Other 3 (5)

7. If you also have a Master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	2·(18)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two-year Master's program	2 (18)
(3) Combined, single-school, Bachelor's/Master's architectural curriculum in any other combination	0 (0)
(4) Architecture, but not from a combined program	5 (45)
(5) Business or related fields	0 (0)
(6) Engineering	0 (0)
(7) Interior Design	0 (0)
(8) Landscape Architecture	0 (0)
(9) Planning (urban and/or regional)	0 (0)
(10) Other	2 (18)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Community College	1 (1)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	32 (49)	(5) Other (Out of Florida	28 (43)
(3) University of Miami	0 (0)	(6) None	4 (6)

9. With what type of organization are you principally affiliated? Check one number for your primary activity

(1) Architectural firm	41 (63)	(6) Architectural-engineering firm	0 (0)
(2) Engineering firm	11 (17)	(7) Developer	0 (0)
(3) Contractor	0 (0)	(8) Business	1 (1)
(4) Landscape architectural firm	2 (3)	(9) Planning firm	3 (4)
(5) Government	1 (1)	(10) Educational institution	0 (0)
		(11) Other	6 (9)

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	17 (28)	(4) Individual practice-corporation	1 (1)
(2) Partnership	11 (18)	(5) Partnership-corporation	8 (13)
(3) Corporation	23 (38)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	5 (14)	(6) Business	2 (6)
(2) Architectural-engineering firm	3 (8)	(7) Landscape architectural firm	0 (0)
(3) Engineering firm	1 (3)	(8) Planning firm	9 (26)
(4) Developer	7 (20)	(9) Government	1 (3)
(5) Contractor	1 (3)	(10) Educational institution	1 (3)
		(11) Other	4 (11)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	16 (25)	(4) Officer	13 (20)
(2) Partner	11 (17)	(5) Employee only	21 (32)
(3) Corporate director	3 (4)	(6) Faculty only	0 (0)

13. Mark the special area(s) which you are primarily engaged. (Percentage is based on 665 responding)

(1) Administration	43 (17)	(6) Contract drawings	30 (11)
(2) Contact and business promotion	28 (11)	(7) Specifications	29 (11)
(3) Feasibility	21 (8)	(8) Estimating	10 (3)
(4) Programming	19 (7)	(9) Construction observation	24 (9)
(5) Design	38 (15)	(10) Other	11 (4)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	13 (19)
(2) 6-10 years	15 (22)
(3) 11-15 years	13 (19)
(4) Over 15 years	25 (37)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	14 (21)
(2) 6-10 years	14 (21)
(3) 11-15 years	14 (21)
(4) Over 15 years	24 (37)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	6 (9)	(4) $20,001-30,000	21 (32)
(2) $10,001-15,000	10 (15)	(5) $30,001-50,000	6 (9)
(3) $15,001-20,000	13 (20)	(6) Above $50,000	8 (12)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 39 (59) (2) No 27 (40)

18. What is your preference for main topics of courses? Check one number for each topic.

	Would probably take	Might take	Would probably not take
A. Computer applications	12 (33)	6 (16)	18 (50)
B. Construction technology	10 (27)	16 (43)	11 (29)
C. Housing financing and development	13 (33)	13 (33)	13 (33)
D. Interior Design	3 (8)	7 (19)	26 (72)
E. Management of architect's office	14 (39)	12 (33)	10 (27)
F. Materials and new applications	12 (33)	13 (36)	11 (30)
G. Mechanical/Electrical building systems	5 (13)	12 (32)	20 (54)
H. Site design and planning	11 (30)	12 (33)	13 (36)
I. Urban regional planning	12 (32)	13 (35)	12 (32)
J. Urban design	9 (24)	14 (37)	14 (37)
K. Other	7 (24)	11 (38)	11 (38)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule

	Would probably Attend	Might Attend	Would probably Not Attend
A. 2 evenings per week (7:00 - 10:00)	9 (24)	12 (32)	16 (43)
B. 2 evenings per week (4:00 - 6:00)	8 (21)	6 (16)	23 (62)
C. 1 evening a week (7:00 - 10:00)	29 (76)	5 (13)	4 (10)
D. 1 evening a week (4:00 - 6:00)	14 (37)	9 (24)	14 (37)
E. Saturday (9:00 a.m. 12:00 or all day	7 (18)	6 (15)	25 (65)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 7 (18) (2) No 32 (82)

21. Are you interested in obtaining academic credits?

(1) Yes 14 (36) (2) No 25 (64)

22. Are you interested in obtaining an advanced degree in:

(1) Architecture	4 (67)	(5) Urban and regional planning	0 (0)
(2) Architectural engineering	2 (34)	(6) Other	0 (0)
(3) Landscape architecture	0 (0)	(7) None	0 (0)
(4) Urban design	0 (0)		

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	17 (43)	(4) Individual ownership-corporation	0 (0)
(2) Partnership	11 (28)	(5) Partnership-corporation	2 (5)
(3) Corporation	9 (23)		

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	17 (43)	(6) 26-30	1 (2)
(2) 6-10	16 (41)	(7) 31-40	0 (0)
(3) 11-15	2 (5)	(8) 41-50	0 (0)
(4) 16-20	0 (0)	(9) 51 and above	2 (5)
(5) 21-25	1 (2)		

25. How many of each of the following types of individuals are in the firms? Check one number for each type. (Reported only in percentages, based on the number of responses to each type)

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	7	69	12	5	0	0	2	2
B. Registered engineers	83	11	2	0	0	0	0	2
C. Graduate architects (not registered)	64	27	2	2	0	2	0	0
D. Interior designers	91	5	3	0	0	0	0	0
E. Landscape architects	88	12	0	0	0	0	0	0
F. Senior draftsmen	41	50	6	0	3	0	0	0
G. Junior draftsmen	30	54	12	3	0	0	0	0
H. Planners	88	11	0	0	0	0	0	0
I. Specification writers	68	31	0	0	0	0	0	0
J. Estimators	72	24	0	3	0	0	0	0
K. Construction administrators	75	18	3	3	0	0	0	0
L. Delineators	78	22	0	0	0	0	0	0
M. Other architectural technicians	87	9	3	0	0	0	0	0
N. Engineering technicians	90	10	0	0	0	0	0	0
O. All others (clerical, accounting, maintenance, etc.)	19	69	5	0	5	0	0	0

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up thrqugh $1,000,000	5 (13)	(4) $20,000,001 - 60,000,000	6 (15)
(2) $1,000,001 - 5,000,000	16 (42)	(5) Over $60,000,000	1 (2)
(3) $5,000,001 - 20,000,000	10 (26)		

27. How many years has your firm been established?

(1) Up through 5	14 (36)	(4) 16-20	3 (7)
(2) 6-10	4 (10)	(5) 21 or more	9 (23)
(3) 11-15	9 (23)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item)

	Yes	No
A. Office buildings	28 (80)	7 (20)
B. Financial institutions	8 (25)	24 (75)
C. Commercial	26 (75)	9 (25)
D. Religious	19 (56)	15 (44)
E. Industrial	18 (53)	16 (47)
F. Multi-family residential	27 (77)	8 (23)
G. Single-family residential	21 (63)	12 (36)
H. Educational	18 (51)	17 (48)
I. Recreational	11 (33)	22 (66)
J. Hospital/Medical	11 (33)	23 (67)
K. Other	9 (29)	22 (71)
L. Planned unit developments	10 (31)	22 (68)
M. Transportation facilites	3 (10)	28 (90)

29. Indicate your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	6 (15)	(5) Increase 10%	5 (13)
(2) Decrease 10%	1 (2)	(6) Increase 11% to 25%	8 (21)
(3) Decrease 11% to 25%	0 (0)	(7) Increase 26% to 50%	11 (29)
(4) Decrease more than 25%	0 (0)	(8) Increase over 50%	7 (18)

30. What do you thing will be the change in the the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	0 (0)	6 (16)	27 (73)	2 (5)	0 (0)	2 (5)
B. Within next 5 years	0 (0)	5 (14)	15 (44)	12 (35)	1 (3)	1 (3)
C. Within next 10 years	0 (0)	5 (14)	11 (32)	10 (29)	6 (17)	2 (6)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 9 (24) (2) No 28 (76)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	34	57	7	0	0	0	0
B. Registered engineers	74	21	0	4	0	0	0
C. Graduate architects (not registered)	21	74	4	0	0	0	0
D. Interior designers	87	12	0	0	0	0	0
E. Landscape	91	4	4	0	0	0	0
F. Draftsmen	11	40	37	11	0	0	0
G. Planners	83	12	4	0	0	0	0
H. Specification writers	95	4	0	0	0	0	0
I. Estimators	91	8	0	0	0	0	0
J. Construction administrators	83	8	8	0	0	0	0
K. Delineators	79	21	0	0	0	0	0
L. Other architectural technicians	82	13	4	0	0	0	0
M. Engineering technicians	78	17	0	4	0	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	6(17)	14(41)	9(26)	1(3)	4(11)
B. Building equipment and construction	1(3)	7(20)	17(50)	5(14)	4(11)
C. Structural design	0(0)	5(15)	9(27)	13(39)	6(18)
D. Drafting and delineation	2(6)	13(38)	10(29)	5(14)	4(11)
E. Specifications and contract documents	0(0)	3(8)	8(23)	16(47)	7(20)
F. Computer technology	0(0)	1(3)	2(6)	1(3)	28(87)
G. Meeting and getting along with people, including clients	3(9)	17(51)	8(24)	1(3)	4(12)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	4 (11)	(4) 3	6 (16)
(2) 1	12 (33)	(5) 4	1 (2)
(3) 2	13 (36)	(6) More than 4	0 (0)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 27 (73) (2) No 10 (27)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	7 (20)	(4) 3	7 (20)
(2) 1	10 (29)	(5) 4	0 (0)
(3) 2	10 (29)	(6) More than 4	0 (0)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 25 (67) (2) No 12 (33)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	17 (51)	(4) 3	3 (9)
(2) 1	9 (27)	(5) 4	0 (0)
(3) 2	4 (12)	(6) More than 4	0 (0)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 18 (50) (2) No 18 (50)

40. What are the starting salaries currently being to:

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
A. Registered architects	0 (0)	0 (0)	6 (16)	12 (32)	14 (37)	5 (13)
B. Graduate architects	0 (0)	7 (19)	19 (51)	9 (24)	2 (5)	0 (0)
C. Senior draftsmen	0 (0)	2 (5)	12 (33)	14 (39)	7 (19)	1 (2)
D. Intermediate draftsmen	3 (9)	12 (36)	11 (33)	7 (21)	0 (0)	0 (0)

	Under $6,000	$6,001-$8,000	$8,001-$10,000	$10,001-$12,500	$12,501-15,000	Above $15,000
E. Junior college trained architectural technicians	12 (41)	14 (48)	3 (10)	0 (0)	0 (0)	0 (0)
F. Vocational-technical trained architectural	14 (54)	11 (42)	1 (4)	0 (0)	0 (0)	0 (0)
G. High school trained architectural technicians	21 (80)	5 (19)	0 (0)	0 (0)	0 (0)	0 (0)

Appendix IV

TALLAHASSEE/PANAMA CITY/PENSACOLA AREAS COMBINED

1. Zip codes: 323, 324, 325

2. Sex: (1) Male 45 (100) (2) Female 0 (0)

3. Ethnic background

(1) Caucasian 45 (100) (2) Negroid 0 (0) (3) Oriental 0 (0)
(4) Spanish surname 0 (0) (5) Other 0 (0)

4. Age:

(1) Under 20 0 (0)
(2) 20 through 29 2 (5)
(3) 30 through 39 12 (27)
(4) 40 through 49 24 (54)
(5) 50 through 59 3 (7)
(6) 60 and above 3 (7)

5. What is the highest level of education you have attained at this time?

(1) High school or less 0 (0)
(2) 1 year or less of college 1 (2)
(3) 2 to 3 years of college (including two year degree) 5 (11)
(4) 4 or more years of college (no degree) 2 (4)
(5) Bachelor's degree 27 (60)
(6) Graduate work without advanced degree 5 (11)
(7) Master's degree 4 (9)
(8) Doctorate 1 (2)

6. If you have a Bachelor's Degree(s) check the number(s) which best describe the degree(s). (If you have taken a combined, single-school, 6-year architectural curriculum, describe only the Bachelor's degree portion of that curriculum.)

(1) 4-year architectural school curriculum 3 (7)
(2) 5-year architectural school curriculum 31 (72)
(3) Some other architectural school curriculum 5 (12)
(4) Business or related fields 3 (7)
(5) Engineering 0 (0)
(6) Interior design 0 (0)
(7) Landscape architecture 0 (0)
(8) Planning (urban and/or regional) 1 (2)
(9) Other 0 (0)

7. If you also have a Master's Degree(s), check the number(s) which best describe the degree(s). Master's degree received from:

(1) Combined, single-school, 6-year architectural curriculum consisting of a five year Bachelor's and a one-year Master's program	0 (0)
(2) Combined, single-school, 6-year architectural curriculum consisting of a four-year Bachelor's and two-year Master's program	0 (0)
(3) Combined, single-school, Bachelor's/Master's architectural curriculum in any other combination	0 (0)
(4) Architecture, but not from a combined program	1 (13)
(5) Business or related fields	2 (25)
(6) Engineering	0 (0)
(7) Interior Design	0 (0)
(8) Landscape Architecture	0 (0)
(9) Planning (urban and/or regional)	2 (25)
(10) Other	3 (37)

8. Indicate architecture program(s) from which you graduated:

(1) Miami-Dade Community College	0 (0)	(4) Other Florida Junior College	0 (0)
(2) University of Florida	22 (52)	(5) Other (Out of Florida	17 (40)
(3) University of Miami	0 (0)	(6) None	3 (8)

9. With what type of organization are you principally affiliated? Check one number for your primary activity

(1) Architectural firm	25 (56)	(6) Architectural-engineering firm	0 (0)
(2) Engineering firm	12 (27)	(7) Developer	0 (0)
(3) Contractor	0 (0)	(8) Business	0 (0)
(4) Landscape architectural firm	0 (0)	(9) Planning firm	7 (15)
(5) Government	0 (0)	(10) Educational institution	1 (2)
		(11) Other	0 (0)

10. If your answer to Question 9 was choice 1 through 8, which of the following 5 choices best further describes the organization you are affiliated with?

(1) Individual practice	13 (33)	(4) Individual practice-corporation	3 (8)
(2) Partnership	11 (28)	(5) Partnership-corporation	2 (5)
(3) Corporation	11 (28)		

11. With what type of organization are you secondarily affiliated?

(1) Architectural firm	5 (18)	(6) Business	2 (7)
(2) Architectural-engineering firm	2 (11)	(7) Landscape architectural firm	0 (0)
(3) Engineering firm	3 (11)	(8) Planning firm	5 (18)
(4) Developer	2 (7)	(9) Government	1 (4)
(5) Contractor	2 (7)	(10) Educational institution	5 (18)
		(11) Other	0 (0)

12. What is your relationship to the organization in Question 9? Check one.

(1) Owner	17 (38)	(4) Officer	4 (9)
(2) Partner	11 (24)	(5) Employee only	9 (20)
(3) Corporate director	4 (9)	(6) Faculty only	0 (0)

13. Mark the special area(s) which you are primarily engaged. (Percentage is based on 665 responding)

(1) Administration	34 (15)	(6) Contract drawings	25 (11)
(2) Contact and business promotion	30 (13)	(7) Specifications	25 (11)
(3) Feasibility	18 (8)	(8) Estimating	13 (6)
(4) Programming	21 (9)	(9) Construction observation	23 (10)
(5) Design	35 (15)	(10) Other	6 (3)

14. How many years have you been registered to practice architecture?

(1) Up to 5 years	6 (13)
(2) 6-10 years	14 (31)
(3) 11-15 years	10 (22)
(4) Over 15 years	15 (33)

15. How many years have you been registered to practice architecture in Florida?

(1) Up to 5 years	8 (18)
(2) 6-10 years	16 (35)
(3) 11-15 years	7 (16)
(4) Over 15 years	14 (31)

16. What was your net income (including salary) before taxes from all architectural work performed by you in 1972?

(1) Under $10,000	0 (0)	(4) $20,001-30,000	8 (20)
(2) $10,001-15,000	8 (20)	(5) $30,001-50,000	12 (29)
(3) $15,001-20,000	8 (20)	(6) Above $50,000	5 (11)

17. Are you seriously interested in continuing or advancing your architectural training?

(1) Yes 31 (69) (2) No 14 (31)

18. What is your preference for main topics of courses? Check one number for each topic.

	Would probably take	Might take	Would probably not take
A. Computer applications	7 (27)	7 (27)	12 (46)
B. Construction technology	10 (37)	11 (41)	6 (22)
C. Housing financing and development	7 (29)	8 (33)	9 (38)
D. Interior Design	3 (13)	7 (29)	14 (58)
E. Management of architect's office	12 (44)	10 (37)	5 (19)
F. Materials and new applications	15 (56)	11 (41)	1 (4)
G. Mechanical/Electrical building systems	7 (26)	7 (26)	13 (48)
H. Site design and planning	13 (50)	8 (31)	5 (19)
I. Urban regional planning	14 (48)	6 (21)	9 (31)
J. Urban design	11 (44)	7 (28)	7 (28)
K. Other	5 (26)	6 (32)	8 (42)

19. What is your preference in scheduling part-time advanced study courses? Check one number for each schedule

	Would probably Attend	Might Attend	Would probably Not Attend
A. 2 evenings per week (7:00 - 10:00)	14 (52)	5 (19)	8 (29)
B. 2 evenings per week (4:00 - 6:00)	4 (15)	10 (38)	12 (47)
C. 1 evening a week (7:00 - 10:00)	19 (68)	6 (21)	3 (11)
D. 1 evening a week (4:00 - 6:00)	10 (36)	7 (25)	11 (39)
E. Saturday (9:00 a.m. 12:00 or all day	7 (25)	7 (25)	14 (50)

20. Are you interested in full-time 1 to 4 week courses?

(1) Yes 14 (42) (2) No 19 (58)

21. Are you interested in obtaining academic credits?

(1) Yes 15 (45) (2) No 18 (55)

22. Are you interested in obtaining an advanced degree in:

(1) Architecture	8 (89)	(5) Urban and regional planning	0 (0)
(2) Architectural engineering	1 (11)	(6) Other	0 (0)
(3) Landscape architecture	0 (0)	(7) None	0 (0)
(4) Urban design	0 (0)		

PART TWO - INFORMATION ABOUT THE OFFICE OR FIRM. QUESTIONS TO BE ANSWERED BY ONLY ONE PRINCIPAL MEMBER OF THE FIRM.

23. What is the legal organization of your firm?

(1) Individual ownership	12 (44)	(4) Individual ownership-corporation	4 (15)
(2) Partnership	6 (22)	(5) Partnership-corporation	0 (0)
(3) Corporation	5 (19)		

24. What is the total number of personnel presently in the firm? Check one number.

(1) 1-5	12 (44)	(6) 26-30	0 (0)
(2) 6-10	11 (41)	(7) 31-40	0 (0)
(3) 11-15	2 (7)	(8) 41-50	2 (7)
(4) 16-20	0 (0)	(9) 51 and above	0 (0)
(5) 21-25	0 (0)		

25. How many of each of the following types of individuals are in the firms? Check one number for each type. (Reported only in percentages, based on the number of responses to each type)

	0	1-3	4-6	7-10	11-15	16-20	21-30	More than 30
A. Registered architects	7	76	10	7	0	0	0	0
B. Registered engineers	70	22	0	8	0	0	0	0
C. Graduate architects (not registered)	46	46	8	0	0	0	0	0
D. Interior designers	60	40	0	0	0	0	0	0
E. Landscape architects	96	4	0	0	0	0	0	0
F. Senior draftsmen	20	80	0	0	0	0	0	0
G. Junior draftsmen	32	60	8	0	0	0	0	0
H. Planners	74	26	0	0	0	0	0	0
I. Specification writers	46	54	0	0	0	0	0	0
J. Estimators	65	35	0	0	0	0	0	0
K. Construction administrators	58	42	0	0	0	0	0	0
L. Delineators	70	30	0	0	0	0	0	0
M. Other architectural technicians	87	13	0	0	0	0	0	0
N. Engineering technicians	73	22	5	0	0	0	0	0
O. All others (clerical, accounting, maintenance, etc.)	19	73	4	4	0	0	0	0

26. What was your approximate dollar volume of contract construction for 1972?

(1) Up through $1,000,000	6 (22)	(4) $20,000,001 - 60,000,000	2 (7)
(2) $1,000,001 - 5,000,000	5 (19)	(5) Over $60,000,000	0 (0)
(3) $5,000,001 - 20,000,000	14 (52)		

27. How many years has your firm been established?

(1) Up through 5	9 (10)	(4) 16-20	5 (19)
(2) 6-10	6 (22)	(5) 21 or more	4 (15)
(3) 11-15	3 (11)		

28. Check the building types that constitute your primary workload. (Percentage is based on the number of responses to each item)

	Yes	No
A. Office buildings	22 (85)	4 (15)
B. Financial institutions	8 (32)	17 (68)
C. Commercial	25 (96)	1 (4)
D. Religious	9 (35)	17 (65)
E. Industrial	9 (36)	16 (64)
F. Multi-family residential	20 (77)	6 (23)
G. Single-family residential	11 (44)	14 (56)
H. Educational	18 (64)	10 (36)
I. Recreational	11 (44)	14 (56)
J. Hospital/Medical	10 (40)	15 (60)
K. Other	4 (16)	21 (84)
L. Planned unit developments	8 (32)	17 (68)
M. Transportation facilites	3 (12)	22 (88)

29. Indicate your estimate of the change in the volume of work to be done by your firm in 1975 compared to 1972. Check one.

(1) No change	7 (26)	(5) Increase 10%	1 (4)
(2) Decrease 10%	0 (0)	(6) Increase 11% to 25%	5 (18)
(3) Decrease 11% to 25%	0 (0)	(7) Increase 26% to 50%	8 (30)
(4) Decrease more than 25%	0 (0)	(8) Increase over 50%	6 (22)

30. What do you thing will be the change in the the number of graduates from architectural schools your firm will employ? (Percentage is based on the number responding to each item)

	Will decrease	No change	Increase 1 to 3	Increase 4 to 7	Increase 8 to 10	Increase more than 10
A. Within next 3 years	1 (4)	7 (25)	17 (60)	2 (7)	0 (0)	1 (4)
B. Within next 5 years	1 (4)	4 (15)	15 (56)	4 (15)	2 (7)	1 (4)
C. Within next 10 years	2 (7)	4 (15)	12 (44)	2 (7)	3 (11)	4 (15)

31. Have you found in the past two years that there have been enough qualified persons with architectural training available to serve the needs of your practice?

(1) Yes 6 (20) (2) No 24 (80)

32. If your answer to Question 31 is "no", how many of the following types would you have been able to employ? Check one number for each type. (Reported only in percentages, based on the number responding to each item)

	0	1-2	3-5	6-10	11-15	16-20	More than 20
A. Registered architects	23	38	39	0	0	0	0
B. Registered engineers	47	42	11	0	0	0	0
C. Graduate architects (not registered)	20	45	30	5	0	0	0
D. Interior designers	76	24	0	0	0	0	0
E. Landscape	88	6	6	0	0	0	0
F. Draftsmen	5	55	25	15	0	0	0
G. Planners	70	24	6	0	0	0	0
H. Specification writers	67	33	0	0	0	0	0
I. Estimators	83	17	0	0	0	0	0
J. Construction administrators	76	24	0	0	0	0	0
K. Delineators	71	29	0	0	0	0	0
L. Other architectural technicians	76	12	12	0	0	0	0
M. Engineering technicians	67	28	5	0	0	0	0

33. In general, rate the architects you have hired in the past few years in terms of their capabilities and understanding of: (Percentages are based on the number responding to each item)

	Excellent	Good	Fair	Poor	No Rating
A. Site planning and architectural design	4(21)	8(42)	4(21)	3(16)	0(0)
B. Building equipment and construction	0(0)	6(32)	7(36)	6(32)	0(0)
C. Structural design	0(0)	5(25)	12(60)	3(15)	0(0)
D. Drafting and delineation	6(30)	7(35)	2(10)	5(25)	0(0)
E. Specifications and contract documents	0(0)	7(35)	5(25)	6(30)	2(10)
F. Computer technology	0(0)	2(11)	2(11)	3(17)	11(61)
G. Meeting and getting along with people, including clients	5(25)	8(40)	7(35)	0(0)	0(0)

34. How many junior college trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	4(17)	(4) 3	2(8)
(2) 1	3(13)	(5) 4	0(0)
(3) 2	15(62)	(6) More than 4	0(0)

35. Would you hire junior college architectural technician students on an on-the-job training program?

(1) Yes 19 (73) (2) No 7 (27)

36. How many vocational-technical architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	6 (25)	(4) 3	2 (8)
(2) 1	6 (25)	(5) 4	1 (4)
(3) 2	9 (38)	(6) More than 4	0 (0)

37. Would you hire vocational-technical architectural technician students on an on-the-job training program?

(1) Yes 20 (71) (2) No 8 (29)

38. How many high school trained architectural technicians are necessary in a firm to provide support services for each graduate architect?

(1) 0	17 (71)	(4) 3	1 (4)
(2) 1	1 (4)	(5) 4	3 (13)
(3) 2	2 (8)	(6) More than 4	0 (0)

39. Would you hire high school trained architectural technician students on an on-the-job training program?

(1) Yes 11 (41) (2) No 16 (59)

40. What are the starting salaries currently being to:

	Under $6,000	$6,001- $8,000	$8,001- $10,000	$10,001- $12,500	$12,501- 15,000	Above $15,000
A. Registered architects	0 (0)	0 (0)	1 (4)	8 (35)	11 (48)	3 (13)
B. Graduate architects	0 (0)	2 (9)	11 (48)	8 (35)	0 (0)	2 (9)
C. Senior draftsmen	0 (0)	3 (13)	13 (57)	5 (22)	2 (9)	0 (0)
D. Intermediate draftsmen	0 (0)	16 (73)	5 (23)	1 (4)	0 (0)	0 (0)

	Under $6,000	$6,001- $8,000	$8,001- $10,000	$10,001- $12,500	$12,501- 15,000	Above $15,000
E. Junior College trained architectural technicians	9 (53)	7 (41)	1 (6)	0 (0)	0 (0)	0 (0)
F. Vocational-technical trained architectural	9 (53)	8 (47)	0 (0)	0 (0)	0 (0)	0 (0)
G. High school trained architectural technicians	15 (94)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)

Cover Design by the State University System Graphics Department

Printing Layout by James Gay of the State Univeristy System Duplication Shop