

/EVALUATION OF THE COORDINATED UNDERGRADUATE PROGRAM  
IN DIETETICS AT KANSAS STATE UNIVERSITY/

by

BARBARA M. EINSPAHR SCHEULE  
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## INTRODUCTION

Kansas State University received approval from The American Dietetic Association (ADA) for a coordinated undergraduate program (CUP) in dietetics in 1971. This was the second coordinated program approved by ADA and the first with a generalist emphasis. Traditional programs involve four years of college course work resulting in a Bachelor's degree, followed by an internship varying from six months to one and one half years. Coordinated programs consist of a didactic component and concurrent clinical practice for professional courses within a four year curriculum.

In 1978, Roach et al. (1) reported results of an evaluation of the 1971-1975 Kansas State University (KSU) coordinated undergraduate program graduates. The evaluation was undertaken to establish the effectiveness of this relatively new approach to dietetic education. Although the first evaluation indicated the KSU-CUP was preparing competent entry-level dietitians, continuing evaluation of the program is necessary. Those charged with the administration of dietetic programs must be assured that their graduates are prepared to meet the demands of a changing profession and the society it serves. An evaluation of professional progress of graduates in the ten years since the initial study gives yet additional insight into the strengths and weakness of this program.

The purpose of this study was to evaluate the coordinated undergraduate program in dietetics at Kansas State University. Specific objectives were to:

- identify professional and educational characteristics of graduates ten or more years following graduation;
- evaluate the quality of the educational experience offered by the KSU-CUP as perceived by that group;
- assess the effectiveness of the KSU-CUP through the ratings of the 1976-1982 graduates and their supervisors from six months to one year following graduation; and
- propose changes in the KSU-CUP program to enhance further the capabilities and competence levels of its graduates.

Accomplishment of the research objectives was achieved through a two part study. First, a questionnaire was developed and mailed to the 1971-1974 graduates during the summer of 1984, followed by data analysis of the responses. Secondly, the research reported by Roach et al. (1) was continued through data analysis of the questionnaires received annually from the 1976-1982 graduates and their supervisors.

## REVIEW OF LITERATURE

### Dietetic Education--A Historical Perspective

#### The Early Years

The foundation for the profession of dietetics was established by the cooking schools of the late 1800s (2). Graduates of those schools were expected to plan menus, order food, plan therapeutic diets, and understand food preparation. In 1903, Florence Corbett (3) established a three month course for dietitians. Entrance requirements specified that applicants must be over 25 years of age, have graduated from a domestic science program, and have one year teaching experience. At the 8th Lake Placid Conference in Home Economics in 1906, McCullough (4) discussed the need for adequate theoretical and technical training. Supplemental technical training in an institution was believed necessary. Corbett (5) defined essentials in dietetic training in 1910 through the recommendation of specific fundamental and applied courses.

The American Dietetic Association (ADA) was founded in 1917; the first annual meeting was held during the following year (6). At this meeting it was proposed that dietitians complete a four year college program. A report on colleges and universities offering two and four year courses in dietetics was given at the fourth annual ADA meeting (7). The scope of the report included specific course content and hours to be devoted to various subjects in both two and four year dietetic programs. It concluded by specifying the minimum requirements as including four years of college training and four to twelve months of work experience.

In 1924, Wheeler (8), Education Section Chairman of ADA, further outlined courses for college training and the hospital working experience, which was to entail administrative, therapeutic, and social service dimensions. As a result of these recommendations (9), a Bachelor's degree in Food and Nutrition from a recognized college or university became the required educational background for dietitians in 1926 (10). This decision was followed by a single outline for a standard course for student dietitians in hospitals (11). A list of approved hospitals, determined through a survey, was published in 1928 (12). Site visitation of these hospitals began one year later (13, 14).

Marlatt (15) reported in 1926 the information obtained from land grant colleges as to the requirements for students of dietetics. College education at that time consisted of courses in physics, inorganic and organic chemistry, biology, foods, textiles, sanitation, nutrition, diet therapy, equipment, management cost accounting, English, economics, psychology, and sociology. The Education Section of ADA (16) presented the results of their questionnaire, completed by directors of dietary departments offering approved courses for student dietitians. A minimum list of subjects for student dietitians at the college level was prepared with the information thereby obtained. The result was approved by ADA as encompassing and providing satisfactory academic instruction of student dietitians. This first approved list of academic requirements was updated in 1934 (2). Subjects and semester hours were revised to incorporate an institutional management course and a nutrition course. Biochemistry, quantity cooking, and organizational management were added as required courses in 1940. English composition was subsequently added as a requirement a few years later (2).

## Educational Requirements Plans I through IV

In 1947, academic standards were revised to indicate courses required for graduates entering an approved hospital, food clinic, or administrative internship; this approach was later designated as Plan I (13). In 1955, Plan II was introduced and contained detailed academic course requirements and titles grouped into four subject matter areas (17). Plan III, adopted in 1958, dispensed with the listing of course titles and instead identified required hours as core subjects (18). Students took core subjects, and thereafter had the opportunity to select one area of emphasis and one area of concentration. Areas of emphasis included foodservice management, education, and foods. Areas of concentration were therapeutic and administrative dietetics, business administration, and science. Plan IV, the current ADA recognized plan, was adopted in 1972 (2). This plan expresses requirements in terms of knowledge areas and basic competencies, in contrast to all previous plans, which had mandated specific courses and semester hours of credit. The intent of Plan IV was to permit freedom and flexibility in curriculum development by individual institutions.

## 1972 Study Commission on Dietetics

The joint request of the ADA Executive and Governing Boards resulted in the formation of a commission to study dietetics (19). Funding for this project was provided by a grant from the W.K. Kellogg Foundation and results of the Study Commission on Dietetics were published in 1972, the same year Plan IV was adopted.

The report was divided into findings and recommendations. The Commission concluded that the current system of educating and training

dietitians was deficient in several ways. Specifically, concern was expressed regarding inadequacies of nutrition science learning, separation by time and place of knowledge and its application, and the fact that variation in learning opportunities could be so great as to result in inadequate training in some instances. The Commission recommended the education of dietitians should consist of a four year curriculum, culminating in a Bachelor's degree, involving both the didactic learning approach and clinical experience necessary for beginning practice (19).

#### Competency-based Education

Competency has been defined as the adequacy for a task or the possession of required knowledge, skills, and abilities (20). Bell (21) described competency-based education as encompassing an entire program, and requiring selective and creative blending of the three learning domains: cognitive, affective, and psychomotor. Bell further stated the strength of competency-based education lay in its emphasis upon the total program and not just a particular class. A demonstration of ability is, in theory, the means by which students are considered ready for practice in competency-based programs.

Cagguila (22) was commissioned by the Executive Board of ADA to develop entry-level competencies for the generalist dietitian. Her effort culminated in a document entitled "Competencies of entry-level generalist dietitians" a year later. Although ADA did not officially adopt this treatise (23), in 1977 Loyd and Vaden (24) reviewed these competencies through a survey of hospital dietitians. A task force was appointed by ADA to develop uniform competency guidelines (25). Due to the realization that several preliminary issues needed to be addressed, the task force

redirected their focus toward the development of a conceptual framework for the profession of dietetics which would, in turn, serve as an essential backdrop against which decisions regarding competency-based education could be effectively made. In a 1980 article, Rinke questioned the merits of competency-based education. He suggested the competency-based approach may be appropriate for teaching technical skills but questioned its usefulness in the development of conceptual and human skills. Holmes (27) compared competencies perceived as essential by dietetic educators in coordinated undergraduate programs with those in traditional programs.

#### Allied Health Commission

The Allied Health Commission was created in September, 1977, to conduct a two year study of allied health issues (28). As with the Study Commission on Dietetics, funding was provided by the W.K. Kellogg Foundation. Of the fifteen primary recommendations presented by the Commission, the four believed to be the most essential and urgent by ADA members were: an increase in legislative activities of ADA, assurance of adequate clinical facilities for student experiences, a linking of education to practice through role delineations, and the preparation of students who meet standard performance objectives (29).

#### Role Delineation

A role is defined as the configuration of major and specific responsibilities for which a practitioner is held accountable to provide quality care (23). The clinical dietetics role delineation was completed, although not validated, in 1981 (30). The management and community dietetics role delineation studies were completed and validated in 1983 (31, 32); they contain responsibility statements, knowledge statements,



and a correlation of the two for entry-level dietitians and dietetic technicians. For the educator, the role delineation studies provide a basis for structuring courses (23).

#### Standards on Education

A task force on education, formed in May, 1982, specified four recommendations (33). One calls for the discontinuation of the concept of emphasis or specialization in entry-level preparation. The use of the role delineation studies is cited as a necessary step in planning for education. The task force further recommends that a transition from Plan IV to the Standards on Education take place, to ensure that graduates will be better prepared with a broader background. Haschke (34) asked that the changes recommended by the task force be made quickly due to the rapid changes occurring in society. Unfortunately, the paucity of scientific research on dietetic education has proved to be an obstacle to planning curriculum changes and has hampered the implementation of such changes. She stressed, however, that dietetic programs unwilling or unable to change may lose the ability to compete for students as their graduates will be unsuitable for the market place.

#### 1984 Study Commission on Dietetics

The 1984 Study Commission (35) was established by The American Dietetic Association Foundation, with financial support from the W.K. Kellogg Foundation and The American Dietetic Association. The Commission examined a number of issues, including the impact made by the report of the 1972 Study Commission, the present status of the profession, the education of dietitians, registration, licensure and certification procedures for dietitians, manpower demands, dietetic practice, dietetic

support personnel, and The American Dietetic Association itself. Recommendations were made in each of these areas.

The Commission stated 20% of the new ADA members come through internship, 20% through CUPs, 20% from advanced degree programs and the remainder through a variety of sources. Only the CUPs and dietetic internships are accredited by ADA. While concern has been expressed by the ADA Task Force on Education that nearly half of ADA members enter the profession through education routes not subject to accreditation, without better evidence as to the merits of each of these routes the Commission was hesitant to recommend discontinuation of these nonaccredited routes to membership.

Accreditation of dietetic programs was undertaken in 1973-1974, despite a negative recommendation from the 1972 Study Commission. The Commission indicated the accreditation system does appear to be functioning well; however, with the high cost of this function to ADA and the recognition that less than half the ADA members go through accredited programs, perhaps other approaches should be investigated.

The Commission indicated dietitians will need to undergo more extensive and rigorous education to be able to assume more prominent roles with increased responsibility. Education for the dietitian should be strengthened through:

- a broader base in arts, humanities, and behavioral sciences,
- greater emphasis on management and business,
- greater emphasis on communications and networking,
- greater emphasis on new technology, especially computer use,  
and
- greater depth in scientific knowledge of nutrition.

The Commission recognized that, to cover all of these areas effectively, academic programs would need to be lengthened. The Commission conceded that not all institutions will be able to provide adequate coverage of all such subjects and that, as a consequence, dietitians will not likely all be equally competent in all these areas. Advanced education through workshops or college course work, however, is expected to become necessary for every dietitian. Recognition of this advanced training may be accomplished through certification (35).

#### Coordinated Undergraduate Programs in Dietetics

##### Beginnings

The Ohio State University introduced coordinated undergraduate dietetic education in 1961. The medical dietetics program consisted of a four year curriculum incorporating academic and experience requirements set by ADA. Throughout the curriculum, presentation of theory was supplemented by practical experience (36). The American Dietetic Association approved this method of dietetic education in 1964.

##### Endorsement by Study Commission on Dietetics

Supporters of coordinated undergraduate education were encouraged by the report of the Study Commission on Dietetics in 1972 (19). The Commission recommended dietetic programs be designated as a four-year curriculum and reported that education would be both more effective and more efficient if science and art were learned concurrently.

The Coordinating Cabinet of ADA appointed a committee to review the report prepared by the Study Commission on Dietetics (37). The committee accepted the recommendation of the Commission that the education of

dietitians be designated as a four year curriculum to include didactic learning techniques and introductory clinical experience. However, a four year curriculum was viewed as only one of a number of possible approaches. The committee expressed a need to evaluate several four year coordinated programs and to review problems of CUP implementation prior to issuing an unqualified endorsement of coordinated curricula for all programs.

#### Growth of Coordinated Undergraduate Dietetic Education

During the next few years, several articles addressed concerns related to the implementation and functioning of CUPs in dietetics. Reddout (38) described some of the distinguishing features of the recently implemented CUP at the State University College of New York at Buffalo. Spears (39) explained the curricula and guiding principles for students in a Food Systems Management CUP at the University of Missouri-Columbia. The first students graduating in May, 1973, were reportedly enthusiastic about their coordinated education. A 1974 article (40) highlighted the activities of several different CUPs.

Assets of the coordinated learning experience were reviewed by Watson (41). She stated learning in the environment the graduate will be functioning within is "enlightening and stimulating--certainly more effective than in a strictly classroom-oriented setting." The concept of coordinated dietetic education was further developed by Lewis and Beaudette (42). Steps in the implementation of a coordinated educational program were explained. The need to interrelate studies in the classroom with the clinical environment was stressed. Team teaching was presented as an important aspect of this coordination.

From the first coordinated dietetic program at Ohio State in 1961, the number of CUPs steadily grew. Kansas State University received ADA approval for a generalist CUP in dietetics in 1972 (1). By 1974, two years after the report of the Study Commission and ten years following ADA approval of The Ohio State CUP, 29 coordinated programs had been accredited (43). The number of accredited CUPs stood at 65 in 1983 (44).

### Career Patterns

The career patterns of an individual or a group can serve as one means of evaluating the outcome of educational experiences. Super (45) defined career patterns as the sequence of occupations in the life of an individual or group. Examinations of career patterns consider changes in the socioeconomic level of jobs, focusing on level and on movement rather than success or satisfaction (46).

#### Types of Career Patterns

Researchers have developed a number of classification systems for career patterns. In 1949, Form and Miller (47) identified three work periods: initial, trial, and stable. The initial work period was defined as the positions held prior to completion of a formal education. The "shop around" period of employment following completion of formal education is referred to as the trial work period. Positions held during this period typically last up to three or four years. The stable work period is characterized by continuous employment for three or more years in a given situation. Fourteen work patterns were developed using the three work periods. Super (45) specified four common work patterns for men as stable, conventional, unstable, and multiple trial. A study by Ginzberg

in 1966 (48) examined direction, progression, and continuity of the careers of 342 Columbia University male graduates. He classified the work experiences of these graduates into three basic patterns: straight, broad, and variant. The straight pattern is characterized by entering and remaining in one field. Those who may shift one or more times into a related occupation are viewed as having a broad pattern. The variant pattern contained radical changes in direction and continuity.

#### Women and Work

Super (45) believed eight career paths were common among women. These patterns were identified as stable, homemaking, conventional, stable working, double track, interrupted, unstable, and multiple trial. The conventional career pattern for women was characterized by working in an occupation such as teaching or secretarial work only until marriage, when the woman becomes a full time homemaker. The stable working pattern is similar to that of men who work continuously. Women who are both homemakers and employed are considered to fall into the double track pattern. The interrupted work pattern occurs when a woman works before and after child rearing. Women who work primarily to meet periodic economic demands in the family have unstable work patterns. The multiple trial pattern is similar to the path followed by men who work in a succession of unrelated jobs.

Writers including Fogarty et al. (49), Nieva and Gutek (50), and Ginsberg (51) have investigated some of the particular concerns of career women. Nieva and Gutek (50) found that women have higher unemployment rates in general than men in both high and low prestige occupations. Ginsberg (51) reported women often leave the labor force to have

children, then reenter at a later time. Furthermore, women's careers are more often affected by family commitments since the husband's place of employment usually determines where a couple will live.

### Career Patterns of Dietitians

Career patterns among hospital dietitians in mid career were studied by Fargen (52). She found administrative dietitians tended to have a more stable pattern of employment and had, on the average, the lowest number of years unemployed as compared to clinical dietitians and generalists. The administrative dietitians were also more likely to have had experience in other dietetic areas of practice. However, the administrative, clinical, and generalists did all tend to have the most extensive experience in their present practice area, indicating dietitians as a group tend to specialize within an area of the profession and stay in that area. Linnekohl (53), in a study of graduates of Kansas State University's coordinated undergraduate program, reported breaks in career patterns were attributable primarily to family responsibilities.

### Program Evaluation

#### Definition and Purpose

Cronbach (54) defines program evaluation as a systematic examination of events occurring in and consequent to a contemporary program, an examination conducted to assist in improving this and other programs having the same general purpose. Program evaluations may be undertaken to provide information and improve the operation of the system studied. Anderson and Ball (55) specified six major purposes of evaluation: five contribute to program decisions about installation, continuation or

expansion, modification, support, and opposition; the sixth purpose is to improve understanding of psychological, social or other processes which are program related.

Many methods exist for the evaluation of programs. Surveys are a major tool in studies of needs assessment, cost estimates, operational feasibility, and program acceptability (55). Assessment of the client is a means to obtain information about program effectiveness. Client assessment may examine competencies, attitudes, and other characteristics the particular program in question has endeavored to achieve.

#### Dietetic Program Evaluations

The need for dietetic program evaluation has been identified by many dietetic educators and practitioners. The Study Commission on Dietetics (19) reviewed educational practices in addition to their study of other aspects of the dietetic profession. An ADA committee charged with the responsibility of reviewing the Study Commission's report cited the need for evaluative studies before implementation of some of the Commission's recommendations (37). In particular, the committee stated the "products" of several four year programs should be evaluated before other programs were encouraged to make such changes in their curricula. Reddout (38), in her discussion of the CUP in dietetics at the State University College of New York at Buffalo, stated that the ongoing development and continuous critique of the curriculum by students, faculty, and graduates assists in promoting a relevant, effective educational program. Spears (39), reporting on the recently established University of Missouri-Columbia CUP, asserted that the true test of the effectiveness of this educational experience will be the professional success of the graduates,



which cannot be measured for some years. The final phase in a coordinated curriculum implementation process outlined by Lewis and Beaudette (42) is evaluation and revision. Galbraith (56), in her speech for the 17th Lenna Frances Cooper Memorial Lecture, stated that while the number of CUPs in dietetics had grown, objective evaluation of the strengths of graduates from the alternative educational methods were not yet available, but were needed. The 1984 Study Commission also reiterated the need for evaluative studies (35).

The evaluation of the first five years of the CUP in dietetics at Kansas State University was reported in 1978 (1). Questionnaires were sent to graduates and to their supervisors. Graduates were asked to evaluate the degree to which their education had prepared them for various activities. Using the same list of activities, supervisors were asked to rate the effectiveness of the graduate in each activity. Results of this study indicated competent entry-level dietitians were being produced. Graduates viewed their education favorably and supervisors, in turn, rated the graduates highly.

In 1981, researchers at Michigan State University (57) reported a study which compared their graduates of the traditional and coordinated programs in dietetics for the years 1975-1977. They concluded both programs were successful in preparing students to enter the job market. Faculty at Louisiana Tech University (58) used the Nominal Group Technique to generate data for decision making about their CUP in dietetics. They found this process to be a useful means of curriculum evaluation. The same group also utilized graduate follow-up surveys to provide evaluative information. A study comparing graduates of internships, coordinated undergraduate programs, advanced degree programs, and

traineeships was reported by Rinke in 1982 (59). Foodservice directors in short term hospitals of 450 or more beds in the United States were requested to provide information on a survey. Respondents rated the adequacy of preparation of graduates from the four routes to registration based upon 69 competency statements. Interns were rated most favorably, CUP graduates the least favorably. Respondents did tend to show a slight preference for graduates who had the same educational background as their own. Also in 1982, Sullivan and Smith (60) reported a study which examined the cost effectiveness of traditional and coordinated programs in dietetics at six institutions offering both programs. They concluded that CUPs were not significantly more expensive per student than traditional programs.

In what is perhaps the most recent effort in this area, Gregoire (61) completed a study in 1985 which compared interns and CUP graduates. She found that both types of dietetic programs were preparing competent entry-level practitioners. Interns, however, tended to have higher grade point averages and scored higher than CUP graduates on the dietetic registration examination, were rated higher on initiative/self assurance and dependability, and after one year were rated higher on performance of clinical and administrative competencies.

## METHODOLOGY

Graduates of the generalist coordinated undergraduate program in dietetics (CUP) at Kansas State University (KSU) were surveyed to provide evaluative information for the improvement of the program. The study was conducted in two parts. First, the characteristics and perceptions of the earliest CUP graduates, from 1971-1974, were examined. Second, the research reported by Roach et al. (1) was continued through data analysis of the questionnaires received annually from the 1976-1982 graduates and their supervisors.

### 1971-1974 Graduates

#### Study Population

The population for the first part of this research was the 71 graduates of KSU's Coordinated Undergraduate Program in Dietetics during the first four years of the program. The 1971-1974 graduates had been out of college from ten to thirteen years at the time of the study. Questionnaires were sent to these graduates during the summer of 1984.

#### Development and Validation of the Instrument

The instrument was designed to collect data on graduates' professional involvement, educational achievements and aspirations, and career activities. Additionally, graduates were asked to evaluate their educational experiences in the KSU-CUP.

A draft instrument was validated by twenty-two dietitians selected from a variety of professional and educational backgrounds. To assure

impartiality, none of the validating dietitians were KSU graduates. Participants in the pilot study had been out of college approximately ten years.

The twenty-two dietitians were sent the draft instrument with a letter requesting their assistance in the finalization of the instrument. They were asked to complete the questionnaire, noting any ambiguous questions directly on the instrument or on an accompanying short evaluation form. Fourteen responses, 64% of those instruments distributed, were returned within two weeks of initial mailing. The returned questionnaires were then reviewed and changes were made to improve questions or the instructions. A copy of the final instrument is located in Appendix A.

#### Final Instrument

Characteristics of the graduates. Graduates were asked to identify the year of graduation and post graduation employment. Salary information was requested for initial employment following graduation and for the present positions. Several items pertaining to graduate plans for attainment of advanced degrees, membership and involvement in professional and community organizations, and status of dietetic registration were adapted from Fargen (52) and Linnenkohl (53). Fargen studied career patterns of hospital dietitians in mid career and Linnenkohl examined the professional activities of KSU-CUP graduates.

Employment background. Data were requested on all positions taken since graduation, dietetic or otherwise, full or part time. A code sheet was provided for the position title, facility type, reason for leaving, and reason for unemployment between positions, if and when it occurred.

Charts were included for graduates to provide requested information on each professional position. An example was printed on the code sheet with a narrative interpretation of the information given in the example. The design of this section was adapted from the research of Fargen (52) and Linnenkohl (53).

Program evaluation. Questions were developed to ascertain the perspective of graduates who had been out of college for ten or more years regarding the quality of education received at KSU. General questions pertained to the desirability of coordinated undergraduate programs compared to the other routes to registration eligibility. Using two scales, respondents were asked also to evaluate the KSU-CUP on 31 subject areas chosen to cover major responsibilities common to dietitians. Development of these subject areas was accomplished by reviewing the Plan IV competencies (62), KSU curriculum guides, the Student Handbook for the Profession of Dietetics (63), Loyd and Vaden (24) dietetic competencies, and input from dietetic educators. Scale A was used to rate the relevance or importance of the subject to professional responsibilities. The four point scale consisted of: 1 = essential, 2 = important, 3 = of minor importance, and 4 = unrelated to my job. Respondents were asked to evaluate on Scale B each subject area as to the adequacy of preparation at KSU. Responses on Scale B were: 1 = totally adequate, 2 = generally adequate, 3 = in between, and 4 = inadequate. Graduates were also asked to suggest additional course work needed for current practice and to provide insight into the strengths or weaknesses of the KSU-CUP.

### Distribution of the Instrument

Initial mailing. Current names and addresses of the research population were obtained from the files in the Alumni Office, records in the Dietetics, Restaurant, and Institutional Management Office, and through personal communications with faculty members. The instrument was accompanied by a cover letter (Appendix A), an address information form, and two stamped envelopes. To assure confidentiality, one envelope was included for the return of the survey and one for the return of the address information form. Surveys were numbered with a 3 digit code for follow-up purposes. The initial mailing was sent to 71 graduates; four were returned as undeliverable. New addresses were located and the initial packet was remailed. The initial mailing resulted in a return of 48%.

Follow-ups. Four weeks later, a follow-up mailing was sent to those not initially responding (Appendix A). Another copy of the instrument and address information form was sent with a letter. After another four weeks had elapsed, a response rate of 75% was achieved. Those who still had not responded were reached by phone, then sent another copy of the instrument, if needed. The final response by graduates totaled 84.5%

### Data Analysis

Coding. Each of the graduate's responses were coded and keypunched onto three eighty-column cards for electronic data processing. The code sheets used for the three cards are located in Appendix B. The third card contained employment background information. Positions early in a graduate's career were omitted from the card if the graduate had held more than the six positions that could be keypunched per card.

Employment data for graduates who had held only one position since graduation were coded starting in column four if the graduate was currently employed in that position, or starting in column 64 if the graduate was not currently employed in that position.

Further analysis of graduates' areas of practice and position level was accomplished by combining the positions, as precoded on the instrument and keypunched on the third card, into areas of practice and position level. The positions listed by area of practice were:

- management
  - director
  - associate/assistant director
  - administrative staff dietitian
- clinical
  - head clinical dietitian
  - clinical staff dietitian
- private practice/consulting
  - private practice--nutrition consultant
  - private practice--foodservice manager
  - private practice--facility consultant
- generalist
  - generalist dietitian
  - health care facility consultant
- other
  - research dietitian
  - teaching dietitian
  - college/university faculty
  - clinical instructor--CUP
  - other dietetic position
  - non-dietetic position

Position levels were determined by reviewing titles then identifying which positions were considered to be entry-level, intermediate, intermediate high, or upper level. Initial determinations of the position level for each position title were checked against graduates' salaries to assure that position levels were appropriate. The intermediate-high category was combined with the intermediate category for

position level analysis, however they were separate categories for career progression analysis. The positions listed by position level were:

entry

director, 0-1 dietitian under supervision  
 associate/assistant director, 0-1 dietitian under supervision  
 clinical staff dietitian  
 generalist dietitian  
 community dietitian

intermediate

administrative staff dietitian

intermediate high

private practice--nutrition consultant  
 private practice--foodservice manager  
 private practice--facility consultant  
 health care facility consultant  
 clinical instructor--CUP

upper

director, 2-3 dietitians under supervision  
 director, 4 or more dietitians under supervision  
 associate/assistant director, 2-3 dietitians under supervision  
 associate/assistant director, 4 or more dietitians under supervision  
 head clinical dietitian  
 research dietitian  
 teaching dietitian  
 college/university faculty

Analysis. Programs and routines of the Statistical Package for the Social Sciences (SPSS) were used for the data analysis (64). Chi square was used to study the relationship between dietetic meeting attendance and employment status, area of practice for most recent and first positions, number of years in first position and most recent position level, number of positions and most recent position level, and career progression and area of practice. Employment background was assessed in relation to graduates' most recent positions and first positions following graduation.



## 1976-1982 Graduates

## Study Population

The population for the second part of this study was 202 KSU-CUP graduates from 1976 through 1982 and their supervisors. Questionnaires have been sent to graduates and their supervisors starting with the first graduating class in 1971. Participants receive questionnaires a minimum of six months to a maximum of one year after graduation. Results from the first five years of graduate and supervisor surveys were reported in 1978 by Roach et al. (1).

## Final Instrument

Two related instruments had been prepared in 1971 and modified in 1974 for recent graduates and their supervisors (1). The graduate's questionnaire was designed to collect information on employment status, graduate school plans, and an evaluation of the KSU-CUP. The supervisor's instrument was prepared to collect data on the KSU coordinated undergraduate program through an evaluation of the graduates. Both instruments were validated prior to use in this study. Copies of the final instruments are located in Appendix C.

## Distribution of the Instruments

Each summer since 1972, graduates who had received their degrees in May one year before, the summer before, or in the preceding December, were mailed a packet containing a survey for the graduate and one for the immediate supervisor with cover letters and an address information form. The graduate was to complete the appropriate questionnaire and ask the supervisor to complete the second form. Graduates indicated on their

supervisor's form whether they waived their right to see the supervisor's evaluation before return. Separate envelopes were provided for the graduate and the supervisor to return their respective forms. A reminder was sent approximately three weeks after the initial mailing if both forms had not been returned. The final response of the 1976-1982 graduates was 85.6%. Responses from supervisors of 63% of the 202 graduates were received.

#### Data Analysis

Coding. Graduates' and supervisors' responses were coded and key-punched on two separate eighty-column cards for electronic data processing. The code sheet for the graduates' and supervisors' responses is located in Appendix D.

Analysis. Programs and routines of the Statistical Package for the Social Sciences (SPSS) were used for the data analysis (64). Frequency distributions were compiled. One way analysis of variance was used to study differences in the importance and preparation mean ratings for job functions by both the graduates and supervisors grouped in the four areas of practice: clinical, administrative, generalist, and other. Correlations between graduates' and supervisors' mean ratings of job function importance were also calculated.

## RESULTS AND DISCUSSION

## 1971-1974 Graduates

## Characteristics of the Respondents

Educational background. The research population consisted of the 71 graduates of Kansas State University's Coordinated Undergraduate Program in Dietetics from 1971 through 1974. Graduates received the questionnaire during July, 1984. The distribution of graduates per year and the number and percentage responding were:

year of graduation	number of graduates	number of responses	percent of responses	percent of total sample
1971	7	7	100	11.7
1972	11	9	82	15.0
1973	19	18	95	30.0
1974	34	26	87	43.3
TOTAL	71	60		100.0

The overall response rate for the entire sample was 84.5%. The 1974 and 1973 graduates accounted for 73.3% of the responses since these two classes were appreciably larger than the 1971 and 1972 classes.

Twenty-five (41.7%) of the graduates had completed a Master's degree and two (3.3%) of the graduates had received doctoral degrees. Subject areas for Master's degrees are listed in Table 1. Nutrition/clinical dietetics was the subject area chosen by most of the graduates (44.0%). Foodservice management and education were the next most frequently chosen subject areas. One of the graduates completing a doctoral degree selected nutrition/clinical dietetics and the other education.

Table 1. Subject areas for completed Master's degrees by 1971-1974 graduates

subject area	graduates* completing M.S.	
	N	%
nutrition/clinical dietetics	11	44.0
foodservice management	5	20.0
education	3	12.0
public health nutrition	2	8.0
other†	2	8.0
no response	2	8.0
total	25	100.0

\*N = 60.

†Includes health education and unspecified.

The highest degree the 1971-1974 KSU-CUP graduates expect to complete are in Table 2. More than half of the graduates (55.1%) have or anticipate completing a degree beyond their Bachelor's degree. The subject area chosen for Master's degrees already completed or planned is provided in Table 3. Nutrition/clinical dietetics was the most popular choice for study. Business administration and foodservice management were the next most frequently chosen subject areas for graduate study. The subject areas selected for study by those who have completed doctoral degrees, or plan to, appear in Table 3. Nutrition/clinical dietetics was again the most popular choice. One graduate has begun medical school. Overall, 20% of the graduates were actively involved in graduate education during 1983 and 1984.

The educational characteristics of the 1971-1974 graduates compare favorably with ADA members generally, in relation to the 1981 census (65). Master's degrees had been awarded or were in progress for 40% of

Table 2. Highest educational degree 1971-1974 graduates expect to complete\* (N = 60)

degree	graduates	
	N	adjusted frequency (%)
Bachelor's	22	44.9
Master's	18	36.7
doctoral	9	18.4
no response	11	

\*Includes degrees completed and planned.

Table 3. Subject areas for completed and planned Master's and doctoral degrees by 1971-1974 graduates (N = 60)

subject area	graduates	
	N	adjusted frequency (%)
Master's degrees		
nutrition/clinical dietetics	6	30.0
business administration	5	25.0
foodservice management	3	15.0
education	1	5.0
public health	1	5.0
other*	4	20.0
no response	40	
doctoral degrees		
nutrition/clinical dietetics	5	62.5
medical doctor	1	12.5
other†	2	25.0
no response	52	

\*Includes exercise physiology, general home economics, hospital administration, and health education.

†Includes health care administration and home economics education.

ADA members overall, as compared to almost 37% of KSU-CUP graduates. Nearly 42% of the graduates reported completing Master's degrees (Table 1); however, not all of these responded to the question regarding highest degree planned (Table 2). Only 4% of ADA members as a group held doctoral degrees or were working toward such a goal. A higher percent of KSU graduates (18.4%) have or plan to complete a doctoral degree. As with the ADA members generally, most KSU graduates chose nutrition/clinical dietetics as the area for advance study. Foodservice management was selected more frequently for graduate study by KSU graduates (15.0%) than by ADA members overall (9.2%).

Professional involvement. Kansas State University CUP graduates are members of a number of professional organizations. Ninety percent (54) of the graduates have maintained their ADA membership continuously. None of the six graduates who permitted their membership to lapse have been reinstated. Four graduates discontinued their membership during the last two years, while the other two chose to let their membership lapse earlier. The three reasons cited for discontinuing ADA membership were inactive status due to family commitment, dissatisfaction with ADA services, and change of profession. A smaller percentage of graduates (6.7%) have chosen to permit their registration to lapse. One graduate never became registered.

Concerning membership in professional organizations, over half (56.9%) of the graduates were members of only The American Dietetic Association (Table 4). Many graduates (29.4%) held membership in one organization in addition to ADA. In addition to ADA, the most frequently cited professional organizations, in decreasing order of rank, were

Table 4. Frequency of 1971-1974 graduates' membership in professional organizations (N = 51)

frequency of membership	graduate	
	N	%
ADA only	29	56.9
ADA and one other	15	29.4
ADA and two others	4	7.8
ADA and three or more	3	5.9

Society of Nutrition Education, American Society for Parenteral and Enteral Nutrition, American Diabetics Association, and American Society for Foodservice Hospital Administrators.

The KSU-CUP graduate attendance at state and national level dietetic meetings is shown in Table 5. During the past three years, 73.3% of the graduates attended a state dietetic meeting. Attendance at national dietetic meetings over the same time period was less common. Only 28.4% of the graduates attended a national meeting in the last three years. Less frequent attendance at national meetings is expected since national meetings entail more travel, expense, and time than state dietetic meetings. No significant differences in meeting attendance was observed for those employed as compared to those unemployed. Both groups of graduates may seek the continuing education units to maintain registration status and the professional stimulation available through state or national meeting attendance.

Frequency of graduate involvement in dietetic association committees or offices at the district, state, or national level are shown in Table 6. Most graduates were involved at the district level; 50% were active

Table 5. 1971-1974 Graduates' attendance at dietetic meetings during last three years by employment status

no. of meetings attended	employment status*				total† (N = 60)	
	employed (N = 36)		unemployed (N = 16)			
	N	%	N	%	N	%
state‡						
0	7	19.4	5	31.3	16	26.7
1	7	19.4	4	25.0	13	21.7
2	10	27.8	4	25.0	16	26.7
3	10	27.8	2	12.5	12	20.0
4	0	0.0	0	0.0	0	0.0
5 or more	2	5.6	1	6.3	3	5.0
national§						
0	25	69.4	13	81.3	43	71.7
1 or more	11	30.6	3	18.8	17	28.4

\*Employment status as of summer 1984.

†Includes eight graduates for whom employment status is unknown.

‡Relationship of employment status to state meeting attendance is statistically insignificant,  $\chi^2 = 1.99$ , 4 d.f.

§Relationship of employment status to national meeting attendance is statistically insignificant,  $\chi^2 = 0.78$ , 1 d.f.



Table 6. 1971-1974 Graduates' participation in dietetic association committees and offices at the district, state, or national levels (N = 60)

years of participation	committees and offices				
	district association	state practice group	state other*	national practice group	national other*
	←———— % —————→				
0	50.0	85.0	78.3	96.7	95.0
1-3	26.7	6.7	8.3	3.4	3.3
4-6	8.3	6.7	8.3	0.0	1.7
7 or more	15.0	1.7	5.0	0.0	0.0

\*Includes any offices and committees other than practice group.

on a committee or as an officer for one or more years. At the state level, 15% of the graduates participated in their state practice group leadership and 21.6% in other state committees or offices for at least one year. Nationally, 3.4% had been involved on a committee or as an officer for a practice group; another 5.0% were active in other national offices or committees.

The 1971-1974 KSU-CUP graduates contributed to their communities in a dietetic-related, but nonworking, capacity in a variety of ways, as illustrated in Table 7. Over the past two years, 46.7% of graduates made a public presentation and 23.4% participated in a media presentation, such as radio or television. Community and citizen organizations were other avenues chosen by some graduates as methods of sharing professional knowledge.

Table 7. 1971-1974 Graduates' participation in dietetic community activities during past two years (N = 60).

frequency of participation	community activities			
	public presentation	media presentation	community groups*	citizen groups†
	←———— % —————→			
none	46.7	61.7	50.0	68.3
once	10.0	6.7	6.7	8.3
more than once	36.7	16.7	26.7	13.3
no response	6.7	15.0	16.7	10.0

\*Includes American Heart Association, Red Cross, dietetic support groups, and others.

†Includes political action committees, school boards, and others.

#### Employment Background

Salary. Salary ranges for graduates' current (1983-1984) and first positions are given in Table 8. Most were earning from \$8,000 to \$9,999 annually during the years 1971-1975. The mean and median salaries for the current position, excluding those working part-time, are in the \$22,000-\$23,999 range. The 1981 census of AOA members (65) reported that nearly 41% of respondents had incomes between \$14,000 and \$19,999. Incomes of \$20,000 per year or higher were reported by 29% of the AOA members. Meaningful comparisons between the AOA census and the KSU 1971-1974 graduates, however, cannot be made readily as the ADA data includes all AOA members, both technicians and those employed part-time.

Employment status. Twenty-eight percent of the 1971-1974 KSU-CUP graduates were unemployed in 1984 when this survey was conducted (Table 8). Reasons given by graduates for leaving a position are shown in

Table 8. Salaries for 1971-1974 graduates' current and first positions (N = 60)

salary range	graduates	
	N	%
current position*		
less than \$16,000†	11	18.3
\$16,000-17,999	1	1.7
\$18,000-19,999	1	1.7
\$20,000-21,999	4	6.7
\$22,000-23,999‡	8	13.3
\$24,000-25,999§	4	6.7
\$26,000-27,999	3	5.0
\$28,000-29,999	3	5.0
\$30,000-31,999	1	1.7
\$32,000-33,999	0	0.0
greater than \$34,000	3	5.0
not currently employed	17	28.3
no response	4	6.7
first position¶		
\$6,000-7,999	9	15.0
\$8,000-9,999	26	43.3
\$10,000-11,999	13	21.7
\$12,000-13,999	6	10.0
no response	6	10.0

\*Positions held during 1983-1984.

†Includes 10 graduates employed part time.

‡Mean and median for those employed full time.

#Includes one graduate employed part time.

¶Positions held during 1971-1975.

||Includes 2 graduates employed part time.

Table 9. "Raising a family" was cited by the highest number of graduates (16.7%) as the reason for leaving the most recent position. The reasons for leaving the first position following graduation varied widely from work related to personal and family related concerns. "Spouse transferred to another city" was the most frequently cited reason by graduates (21.7%) at this early stage in their careers. Another 8.3% indicated they left their first position to "raise a family."

The August 1984 edition of the U.S. Department of Labor Statistics Bulletin 2209 (66) stated the work force participation rate of mothers with infants was 45%. Mothers with children age 2 to 5 years have a labor force participation rate ranging from 50 to 57%. Generally speaking, therefore, one of every two mothers with young children does not work. Consequently, the percentage of unemployed KSU-CUP graduates is not surprising since, as reflected in Table 9, many left their last position to raise a family.

Twelve graduates (20%) were employed part time. Graduates employed part time were most likely to work less than half-time (Table 10); only four out of the 12 (33%) were employed half-time or more. The April 1983 edition of the U.S. Department of Labor Statistics Bulletin 2168 (67) stated three-fourths of employed adult women are full time workers; the remaining one-fourth are part time employed. Based on those graduates who reported their salaries (Table 8), a slightly higher percent (28%) of KSU-CUP graduates are part time workers. Since the majority of these graduates are in their early thirties, family commitments may influence the decision to work part time.

The effect of a family upon graduates' professional plans was apparent in the responses given by 50 graduates to an open-ended question

Table 9. 1971-1974 Graduates' reasons for leaving most recent and first positions (N = 60)

reasons	graduates			
	most recent position*		first position†	
	N	%	N	%
family related				
to raise a family	10	16.7	5	8.3
to care for family	1	1.7	1	1.7
spouse transferred to another city	4	6.7	13	21.7
work related				
to accept better paying job		0	5	8.3
to accept job with better hours		0	1	1.7
wanted a different experience		0	4	6.7
wanted a more challenging job		0	3	5.0
did not like the work	1	1.7	1	1.7
promotion within facility		0	5	8.3
position was temporary	3	5.0	2	3.3
general				
wanted to move to another city	1	1.7	5	8.3
to go back to school	1	1.7	4	6.7
not applicable, currently employed in this position	33	55.0		0
other			3	5.0
no response	6	10.0	8	13.3

\*Defined as the current position, or, if unemployed the last position held.

†Defined as the first professional position following graduation.

Table 10. Time worked by 1971-1974 graduates employed part time (N = 12)

time worked	graduates	
	N	adjusted frequency (%)
%		
10	3	25.0
20	1	8.3
25	3	25.0
33	1	8.3
50	2	16.7
67	1	8.3
75	1	8.3

regarding future plans. Twelve graduates referred to their professional plans in relation to the impact upon their family. Five graduates stated they planned to return to work either full or part time when their children were older. Education was another priority of these graduates. Thirteen indicated plans to work on an advanced degree. Professionally, seven graduates discussed a desire to begin a private practice or, in some cases, to enlarge an existing practice. Another seven graduates planned to stay in their current area of dietetic practice.

Area of practice. Graduates' area of practice for most recent position and first position are identified in Table 11. Most graduates (64.6%) chose clinical practice for their first positions, however, management practice was the area selected by the highest number of graduates (33.3%) for their most recent positions. Twenty-seven percent of graduates are currently or were most recently engaged in private practice or consulting. Fitz (68) reported in the Results of the Dietetic Manpower Demand Study that a rise in demand for self-employed/consultant

Table 11. 1971-1974 Graduates' areas of dietetic practice for most recent and first positions\* (N = 48)

most recent areas of practice	first areas of practice									
	management		private/ consulting		clinical		other†		total	
	N	%	N	%	N	%	N	%	N	%
management	5	10.4	1	2.1	10	20.8	0	0.0	16	33.3
private/ consulting	2	4.2	0	0.0	8	16.7	3	6.3	13	27.1
clinical	0	0.0	1	2.1	7	14.6	2	4.2	10	20.8
other‡	1	1.2	0	0.0	6	12.5	2	4.2	9	18.8
total	8	16.7	2	4.2	31	64.6	7	14.6		

\*Relationship of first area of practice to most recent area of practice is statistically insignificant,  $\chi^2 = 9.45$ , 9 d.f.

†Includes: 4 generalists and 3 in teaching.

‡Includes: 4 university/college faculty, 2 generalists, 2 in nondietetic position, and 1 in teaching.

dietitians is expected. Only 4.3% of ADA members indicated consulting as their area of practice in the 1981 census (65).

None of the graduates who started in management practice were employed as clinical dietitians for their most recent position. While 64.6% of the graduates started their careers as clinical dietitians, 20.8% were later in management practice, 16.7% in private practice, 14.6% in clinical and 12.5% in "other," a category which includes educators and general practitioners. All of the graduates who started in private/consulting practice (4.2%) were currently in either management or clinical positions. Generally, private/consulting practice is not desirable for the entry-level dietitian as guidance from a more experienced dietitian may not be available in such positions. Twenty-seven percent of the

graduates who initially were clinical, management, or other practitioners most recently chose private practice.

Facility type. The types of facilities in which KSU-CUP graduates are employed are presented in Table 12. Slightly over half (51.9%) of the graduates are employed in hospitals. The next two most frequent types of facilities in which graduates were employed were other health care facilities (9.3%) and nursing homes (7.5%). The ADA 1981 census data (65) showed health care facilities to be the largest employer of dietitians (77.8%). No graduates reported employment in a health maintenance organization, even though the opportunities for dietitians in these facilities have expanded in recent years, and are expected to continue to grow (35).

Table 12. Types of facilities for 1971-1974 graduates' most recent employment (N = 54)

type of facilities	graduates	
	N	%
hospital	28	51.9
other health care facility	5	9.3
nursing home	4	7.4
college/university academic unit	4	7.4
government agency	3	5.6
private office, self employed	2	3.7
vocational/technical school	2	3.7
physician's office	1	1.9
college/university foodservice	1	1.9
other, nonspecified	4	7.4

In reporting types of facilities in which they were employed, graduates indicating self-employment in private practice amounted to only 3.7% of the total. Although 27.1% of graduates were considered to be in



private practice/consulting (Table 11), the data are not conflicting. Graduates in their own consulting business often do provide services for a facility or a physician's office and therefore may logically have indicated those facilities.

Position level. The level of graduates' most recent positions were defined by the position title as described in the Methodology section. Initial determinations were checked against graduates' salaries to determine whether a reevaluation of what constituted upper intermediate-high, intermediate, and entry-level positions was necessary. The position levels were then applied to graduates' most recent and first positions. The intermediate-high and intermediate categories were combined to make three nearly equal sized groups. The percentage of graduates in upper, intermediate, and entry-level positions most recently were:

position levels	% of graduates (N = 52)
upper	25.0
intermediate	34.6
entry	40.4

The years in the first position and job mobility were examined in relation to position level (Tables 13 and 14). A chi square analysis failed to show any significant relationship between these variables and job level. Most graduates (48.0%) stayed in their first position one to two and a half years (Table 13), although twenty-six percent of the graduates were in their first position for less than one year. The reasons for leaving their first position (Table 9) were discussed earlier. Nearly 22% of the graduates left their first positions because their

Table 13. Number of years 1971-1974 graduates stayed in first position and current position level\* (N = 50)

no. of years	current position levels							
	upper		intermediate		entry		total	
	N	%	N	%	N	%	N	%
less than 1	6	46.2	3	16.7	4	21.1	13	26.0
1-2.5	5	38.5	9	50.0	10	52.6	24	48.0
2.6 or more	2	15.4	6	33.3	5	26.3	13	26.0
total	13	100.1	18	100.0	19	100.0	50	100.0

\*Relationship of number of years in first position to current position status is statistically insignificant,  $\chi^2 = 4.10$ , 4 d.f.

Table 14. Number of positions 1971-1974 graduates held and current position level\* (N = 52)

no. of positions	current position levels							
	upper		intermediate		entry		total	
	N	%	N	%	N	%	N	%
1-2	3	23.1	4	22.2	6	28.6	13	25.0
3-5	7	53.8	7	38.9	11	52.4	25	48.1
6-8	3	23.1	4	22.2	4	19.0	11	21.1
8 or more	0	0.0	3	16.7	0	0.0	3	5.8
total	13	100.0	18	100.0	21	100.0	52	100.0

\*Relationship of number of positions to position status is statistically insignificant,  $\chi^2 = 6.41$ , 6 d.f.

"spouse transferred to another city." This may in part explain the high percentage of graduates who were in their first position less than one year. Nevertheless, later job level of these individuals was apparently unaffected by this short period of time in the first position.

Most of the graduates (48.1%) held three to five positions since graduation (Table 14). A small number of graduates (5.8%) held eight or more positions. These figures may appear somewhat high until it is realized that respondents were instructed to include promotions within the same facility and concurrently held part time positions as separate positions.

Career progression. Career progression was defined by the number of upward steps (zero, one, two or three) in position level between the graduate's most recent position and first position. Graduates whose position level did not change were defined as having zero upward steps, or no progression, even though their level of responsibility may have increased over the years. One step upwards, such as from entry to intermediate level, was considered moderate progression, and two or three steps, such as from entry to upper level, as high progression. The percentage of graduates in each category of progression from their first to last position were:

progression	% of graduates (N = 46)
none	43.5
moderate	13.0
high	43.5

Career progression was examined in relation to type of most recent and first positions (Table 15). Chi square analysis failed to show a

Table 15. 1971-1974 Graduates'\* career progression and areas of practice in most recent and first positions

progression	clinical		management		other†		total	
	N	%	N	%	N	%	N	%
most recent position‡								
none	6	75.0	11	73.3	3	13.0	20	43.5
moderate#	1	12.5	1	6.7	4	17.4	6	13.0
high¶	1	12.5	3	20.0	16	69.6	20	43.5
total	8	100.0	15	100.0	23	100.0	46	100.0
first position								
none	13	44.8	5	62.5	4	40.0	22	46.8
moderate#	1	3.4	1	12.5	2	20.0	4	8.5
high¶	15	51.7	2	25.0	4	40.0	21	44.7
total	29	99.9	8	100.0	10	100.0	47	100.0

\*N varied from 46 to 47 due to inability to define position level for graduate's most recent position.

†Includes private practice, consultants, generalists, educators, and others.

‡Relationship of progression and most recent area of practice is statistically significant ( $p < .01$ ),  $\chi^2 = 17.87$ , 4 d.f.

#Represents one step upward in position level.

¶Represents 2-3 steps upward in position level.

||Relationship of progression and first area of practice is statistically insignificant,  $\chi^2 = 4.18$ , 4 d.f.

significant relationship between the first area of practice and career progression. The largest group of graduates (64.6%) were in clinical positions following graduation (Table 11). Of these graduates, 44.8% did not progress, while 51.7% had high levels of progression. Some may have progressed in clinical practice while others progressed upwards by changing into other areas of practice. Only 20.8% of the graduates were in clinical practice for their current or most recent position (Table 11).

The level of progression examined in relation to the type of most recently or currently held position (Table 15). Chi square analysis shows a significant relationship ( $p < 0.01$ ) between progression and most recent area of practice. Graduates who have had a high level of progression are in positions classified as "other," which includes private practice dietitians, consultants, generalists, educators and others. These are positions which, for the most part, are not considered to be entry-level in nature. Graduates who remained in management or clinical positions were unlikely to have a high progression. Seventy-five percent of the clinical dietitians and 73.3% of the management dietitians did not progress into positions at a higher level than their first position as determined in relation to current position level.

#### Evaluation of Educational Preparation

General impressions. Graduates' overall perceptions of Kansas State University's coordinated undergraduate program were positive (Table 16). Seventy-three percent believed KSU's CUP was better than other coordinated undergraduate programs. Although graduates would be expected to be supportive of their alma mater, and some may have had only limited exposure to other CUPs and their graduates, this is nevertheless

Table 16. 1971-1974 Graduates' overall perceptions of Kansas State University's coordinated undergraduate program in dietetics (N = 60)

scale	graduates			
	compared to other CUPs*		acceptability as method for gaining registration†	
	N	%	N	%
1	16	26.7	39	65.0
2	22	36.7	18	30.0
3	7	11.7	3	5.0
4	4	6.7	0	0
5	0	0	0	0
no response	11	18.3	0	0

\*Scale: 1 = KSU much better, 2 = KSU better, 3 = no difference, 4 = other CUP better, 5 = other CUP much better.

†Scale: 1 = entirely acceptable, 2 = generally acceptable, 3 = occasionally questionable, 4 = frequently questionable, 5 = unacceptable.

a positive indication that KSU graduates were pleased with their education. Ninety-five percent of the graduates believed the KSU-CUP was an acceptable method of gaining registration as a dietitian (Table 17). Graduates were also positive toward the concept of coordinated undergraduate education in general as compared to a Bachelor's degree with an internship, Bachelor's degree with a three year preplanned experience, or Master's degree with a six month experience.

Subject area importance. Graduates' mean ratings of subject area importance for professional experiences are listed in Table 17. The scale used by the respondents was: 1 = essential, 2 = important, 3 = of minor importance, and 4 = unrelated to my job. These KSU graduates, who have been employed up to twelve years since graduation in a variety of positions, rated "written/oral communications" as the most essential

Table 17. 1971-1974 Graduates'\* mean ratings of the importance in 31 subject areas

subject area	mean ratings†
essential (1.00-1.49)	
written/oral communication‡	1.22
clinical nutrition#	1.25
normal nutrition#	1.25
problem solving/decision making‡	1.30
nutrition through life cycle#	1.31
patient counseling#	1.39
instructional techniques‡	1.41
nutritional assessment#	1.41
documentation of clinical care#	1.48
time management‡	1.48
very important (1.50-1.99)	
interpretation of patient lab values#	1.51
physiology#	1.59
personnel management‡	1.64
sanitation and health regulations‡	1.76
cost control‡	1.87
menu planning‡	1.88
parenteral/enteral nutrition#	1.89
food production‡	1.93
important (2.00-2.49)	
biochemistry/chemistry‡	2.03
management theory‡	2.05
budget planning‡	2.05
community nutrition#	2.08
quality assurance/audits#	2.13
marketing dietetic services‡	2.20
purchasing/procurement‡	2.27

\*N varied from 58 to 59.

†Scale used by respondents: 1 = essential, 2 = important, 3 = of minor importance, 4 = unrelated to my job.

‡Management subject area group.

#Clinical subject area group.

¶General education subject area group, pertains to all areas of dietetics.

Table 17. (cont.)

subject area	mean ratings
important (2.00-2.49) (cont.)	
food science†	2.31
recipe standardization‡	2.37
computerization in nutritional care#	2.44
less important (2.50-5.00)	
computerization in foodservice management†	2.53
equipment/layout‡	2.56
labor relations/unions‡	2.66

subject area (1.22) in the execution of their professional responsibilities. "Clinical nutrition" and "normal nutrition" closely followed with mean scores of 1.25. Other clinical related subject areas considered by the graduates to be essential were "nutrition through the life cycle," "patient counseling," "nutritional assessment," and "documentation of clinical care." "Problem solving/decision making," "instructional techniques," and "time management," subjects with significance for all areas of dietetic practice, were also rated as essential.

"Computerization in nutritional care" and in "foodservice management" were rated as relatively less important, with mean scores of 2.44 and 2.53, respectively. The graduates' relatively low rating of computer knowledge suggests many facilities are not yet utilizing computers in the dietary department, or, if they are, that the dietitian is uninvolved. "Equipment/layout" and "labor relations/unions," management related subjects, received the lowest mean ratings for importance with respective mean scores of 2.56 and 2.66. The frequency of graduate involvement in



major renovation or building projects would be expected to be low. A thorough knowledge of equipment, however, would seem to be essential for anyone practicing as a foodservice manager although, with equal assurance, such knowledge would prove rather unimportant for those in clinical practice. Unions/labor relations may have been viewed by graduates as less important inasmuch as the impact of unions in foodservices in some parts of the United States--and particularly in small facilities--is minimal.

Subject area importance data, compiled by subject area groups, appears in Table 18. A chi square analysis showed a significant relationship ( $p < 0.05$ ) between importance ratings and subject area groups. None of the management topics were rated as essential, whereas half of the clinical topics (50.0%) were considered essential by graduates. The other half of the clinical skills were rated important or very important. These importance ratings are, of course, reflective of the type of positions in which graduates have been employed. Many of the graduates started in clinical practice (64.0%); some have stayed in clinical dietetics or moved into a consulting or private practice requiring clinical skills (Table 11).

Educational preparation. Graduate mean ratings of educational preparation in 31 subject areas are given in Table 19. The scale used was: 1 = totally adequate, 2 = generally adequate, 3 = in between, and 4 = inadequate. "Menu planning" and "recipe standardization" received the highest mean ratings (1.42 and 1.44). Educational preparation for all of the topics considered to be essential for professional practice by graduates were rated as adequate to generally adequate, with mean scores ranging from a high of 1.66 for normal nutrition to a low of 2.46 for

Table 18. 1971-1974 Graduates'\* importance ratings and subject area groups†

importance#	subject area groups							
	management		clinical		general education‡		total#	
	N¶	%	N	%	N	%	N	%
essential (1.0-1.49)	0	0.0	6	50.0	4	66.7	10	32.3
very important (1.5-1.99)	5	38.5	3	25.0	0	0.0	8	25.8
important (2.0-2.49)	5	38.5	3	25.0	2	33.3	10	32.3
less important (2.5-5.0)	3	23.1	0	0.0	0	0.0	3	9.7
total#	13	100.1	12	100.0	6	100.0	31	100.1

\*Number of graduates varied from 58 to 59.

†Relationship of importance to subject area group is statistically significant ( $p < .05$ ),  $\chi^2 = 14.96$ , 6 d.f.

‡Pertains to all areas of dietetics.

#Refer to Table 17 for 31 subject areas.

¶N represents number of subject areas.

Table 19. 1971-1974 Graduates'\* mean ratings of educational preparation in 31 subject areas

subject area	mean ratings†
totally adequate (1.00-1.49)	
menu planning‡	1.42
recipe standardization‡	1.44
adequate (1.50-1.99)	
food production‡	1.56
food science‡	1.61
normal nutrition#	1.66
patient counseling#	1.74
sanitation and health regulations‡	1.74
nutrition through life cycle#	1.83
written/oral communication¶	1.86
management theory‡	1.88
purchasing/procurement‡	1.92
instructional techniques¶	1.95
documentation of clinical care#	1.98
generally adequate (2.00-2.49)	
clinical nutrition#	2.02
personnel management‡	2.02
problem solving/decision making¶	2.03
physiology#	2.05
equipment/layout‡	2.06
community nutrition#	2.16
biochemistry/chemistry¶	2.17
time management¶	2.41

\*N varied from 57 to 59.

†Scale used by respondents: 1 = totally adequate, 2 = generally adequate, 3 = in between, 4 = inadequate.

‡Management subject area group.

#Clinical subject area group.

¶General education subject area group, pertains to all areas of dietetics.

||Subject areas graduates believed were "essential" refer to Table 17.

Table 19. (cont.)

subject area	mean ratings
generally adequate (2.00-2.49) (cont.)	
nutritional assessment#	2.46
interpretation of patient lab values#	2.47
in between (2.50-4.00)	
cost control‡	2.57
labor relations/unions‡	2.58
budget planning‡	2.64
marketing dietetic services‡	3.00
computerization in foodservice management‡	3.10
quality assurance/audits#	3.14
parenteral/enteral nutrition#	3.15
computerization in nutritional care#	3.31

nutritional assessment. Graduates were moderately critical of their preparation for "budget planning" (2.64), "labor relations/unions" (2.58), and "cost control" (2.57). Graduates were most critical of their preparation for "computerization in nutritional care," "parenteral/enteral nutrition," "quality assurance/audits," "computerization in foodservice management," and "marketing dietetic services." These subject areas were rated 3.0 (in between adequate and inadequate) or lower. Low ratings were expected for computerization in nutritional care and foodservice management as these topics were not part of the curriculum from 1971 to 1974. Similarly, marketing in relation to dietetics has also come more into focus as an important aspect of dietetic practice within recent years.

The adequacy of preparation for subject area groups are illustrated in Table 20. A chi square analysis did not show any significant

Table 20. 1971-1974 Graduates'\* adequacy of preparation ratings and subject area groups†

preparation#	subject area groups							
	management		clinical		general education‡		total#	
	N¶	%	N	%	N	%	N	%
adequate (1.0-1.99)	7	53.8	4	33.3	2	33.3	13	41.9
generally adequate (2.0-2.49)	2	15.4	6	50.0	2	33.3	10	32.3
in between (2.5-4.0)	4	30.8	2	16.7	2	33.3	8	25.8
total#	13	100.0	12	100.0	6	99.9	31	100.0

\*Number of graduates varied from 57 to 59.

†Relationship of preparation adequacy to subject area group is statistically insignificant,  $\chi^2 = 3.72$ , 4 d.f.

‡Pertains to all areas of dietetics.

#Refer to Table 19 for 31 subject areas.

¶N represents number of subject areas.

differences between adequacy of preparation and subject area groups. A generalist dietetic program such as KSU's strives to prepare graduates well in all areas of practice. The lack of evidence that the program is particularly weak in one area relative to another is a favorable indication. As a whole, graduates believed their preparation was good in both management and clinical, as well as in other skills which affect all areas of practice.

The subject area importance by adequacy of educational preparation is presented in Table 21. A chi square analysis failed to show any significant differences between importance and adequacy of educational preparation. However, none of the subject areas considered by the graduates to be essential were rated with a mean score of 2.50 or lower. Also noteworthy is that a high percentage (41.9%) of the subject areas received mean preparation scores of 1.99 or higher. Both of these responses indicate graduates were positive toward their education.

Graduates' general recommendations. Graduates were asked in open-ended questions to suggest new course work and to indicate whether they were supportive of ADA's Task Force on Education recommendation that dietetic education should be broader based. Of the 49 graduates who suggested new course work, 31 cited computers, 11 mentioned marketing, nine listed budget planning and fiscal management, and five stated legislation. Other subjects each identified by four graduates included: enteral/parenteral nutrition, quality assurance, sports nutrition, geriatric nutrition, and issues associated with starting a private practice. Of the 46 graduates who stated their opinions regarding the need for a broader based education, 63% were not in support of this ADA

Table 21. Ratings for importance and adequacy of preparation by 1971-1974 graduates\*†

importance#	adequacy of preparation#							
	adequate‡ (1.0-1.99)		generally adequate (2.0-2.49)		in between (2.5-4.0)		total#	
	← subject areas →							
	N¶	%	N	%	N	%	N	%
essential (1.0-1.49)	6	46.2	4	40.0	0	0.0	10	32.3
very important (1.5-1.99)	3	23.1	3	30.0	2	25.0	8	25.8
important (2.0-2.49)	4	30.8	2	20.0	4	50.0	10	32.3
less important (2.5-5.0)	0	0.0	1	10.0	2	25.0	3	9.7
total#	13	100.1	10	100.0	8	100.0	31	100.1

\*Number of graduates varied from 57 to 59.

†Relationship of importance to adequacy of preparation is statistically insignificant,  $\chi^2 = 8.46$ , 6 d.f.

‡Includes totally adequate items.

#Refer to Tables 17 and 19 for 31 subject areas.

¶N represents number of subject areas.

recommendation. Graduates indicated they were pleased with the extent to which their education was specialized in dietetics, including both management and clinical areas. Concern was expressed that although dietitians should be "well educated and not just well trained" after the completion of a Bachelor's degree, dietitians do need to be competent in a variety of areas. Graduates questioned the ability of educational programs to prepare competent dietitians with an education more broadly based within a four year curriculum.

Forty-six graduates expressed their thoughts as to the strengths and weaknesses of the KSU-CUP. Four graduates believed the opportunity to train as a part of a physician-directed team as a strength of the clinical part of the program. The hospital experiences were cited by three graduates as another strength. Weaknesses in the clinical area included not having diet therapy until the clinical semester and the need for more enteral/parenteral nutrition. These recommendations were cited by six and five of the graduates, respectively. The diet therapy class has been changed to an earlier semester since fall of 1983. A strength in the management area listed by nine graduates was the work experiences in the residence halls. Four graduates cited: the variety of experiences, personnel management, and the hands on experience as strengths. The two most frequently mentioned management weaknesses were budgeting/fiscal management/accounting, listed by 10 graduates, and computers, cited by 6 graduates. A one credit hour course was added to the curriculum in 1976 and, in 1984, a four hour course replaced the initial course. Financial accounting, a four hour course, was added as a separate course in 1982; specific application to foodservice management occurs in professional courses. Three graduates expressed the need for more



emphasis in personnel management, and more experiences in a hospital feeding situation.

### 1976-1982 Graduates

#### Characteristics of the Respondents

Educational background. The research population was composed of 202 graduates of the Coordinated Undergraduate Program in Dietetics at Kansas State University from 1976 through 1982. Graduates received the questionnaire from six months to one year following graduation. The distribution of graduates per year and the number and percentage responding were:

year of graduation	number of graduates	number of responses	percent of responses	percent of total sample
1976	21	18	85.7	10.4
1977	38	35	92.1	20.2
1978	35	29	82.9	16.8
1979	29	26	89.7	15.0
1980	28	23	82.1	13.3
1981	20	14	70.0	8.1
1982	31	28	90.3	16.2
total	202	173		100.0

The overall graduate response rate was 85.6%, of which 97 (56%) graduated following the spring semester, 58 (34%) after the fall semester, and 18 (10%) following the summer term.

Supervisors of graduates completed corresponding questionnaires. A total of 133 supervisors returned the survey. Only two surveys were received from supervisors when the corresponding graduate failed to respond. In contrast, 50 questionnaires were received from graduates without the corresponding supervisor's response. Some of these graduates

were employed in situations without an immediate supervisor; others were not employed, or were involved in advanced study and consequently had no supervisor.

Nine (5.2%) of the 173 responding graduates had started graduate school within the first 12 months following graduation from KSU. Of these, six anticipated earning a Master's degree and two expected to complete a doctoral degree. One of the current Master's degree students did not respond when asked the highest degree expected.

Employment profile. One hundred forty-three graduates (83%) reported being currently employed in full time positions. Fifteen graduates (9%) indicated they were employed part time. Two graduates did not respond, while 13 (8%) reported they were unemployed. Nine of the unemployed graduates were not seeking employment as they were involved in graduate studies. A few expressed difficulty in finding satisfactory employment as the reason for being unemployed.

The type of positions held by the 1976 through 1982 graduates are shown in Table 22. Most graduates (41.0%) were employed in clinical positions. A higher percentage (64.6%) of the 1971 through 1974 graduates chose clinical dietetics for their first position (Table 11). While the percentage of recent graduates and the 1971-1974 graduates selecting management positions were similar, a higher percentage of the 1976-1982 graduates were employed in generalist, community, consulting and other positions. Seventeen percent of the recent graduates were employed in generalist positions following graduation as compared to only 8% of the early graduates. Only 10.4% of the 1971-1974 graduates were employed in community, consulting, and other positions, while 17.3% of the 1976-1982

Table 22. 1976-1982 Graduates' area of entry-level practice (N = 173)

area of practice	graduates	
	N	%
clinical	71	41.0
generalist	30	17.3
administrative	26	15.0
community*	12	6.9
consultant*	11	6.4
other*	7	4.0
no response	16	9.2
total	173	100.0

\*Combined into one category referred to as "other" for data analysis.

graduates reported employment in these kinds of positions during the first year after graduation. The recent graduates seem to be taking advantage of the wider variety of positions now more frequently available for dietitians.

Salary. Entry-level salary ranges reported by the most recent group of graduates for the 1982-1983 year were:

salary range	number of graduates	percent
less than \$13,999	4	17.4
\$14,000 - \$14,999	4	17.4
\$15,000 - \$15,999	4	17.4
\$16,000 - \$16,999	3	13.0
\$17,000 - \$17,999	2	8.7
\$18,000 - \$18,999	3	13.0
\$19,000 - \$19,999	0	0.0
greater than \$20,000	3	13.0
total	23	99.9

Both the mean and median are within the \$15,000-\$15,999 range. The ADA position paper on salaries and employment practices of dietitians (69),

published in 1981, recommends a minimum annual salary of \$15,700 for an ADA dietitian without experience, and \$17,000 for a registered dietitian without experience. Approximately half of the 1982 graduates were receiving these minimum recommended salaries or more. The salary ranges for the 1976-1981 graduates are listed in Appendix D, Table 23.

Salaries of the 1971-1974 graduates' current and first positions are located in Table 8. Entry-level salaries have increased considerably since the years 1971-1975, and the variance from high to low salary levels is larger. As a whole, the graduates with experience are making more than the entry-level graduates. The 1971-1974 graduates' mean salaries for the year of 1984 were in the range of \$22,000-23,999. The entry-level graduates' mean salaries for the period 1982-1983 were within the \$15,000-15,999 range. However, three (13.0%) of the 1982 graduates were earning in excess of \$20,000, a salary which is close to, if not within, the mean salary range of the 1971-1974 graduates.

#### Graduates' Ratings of Job Function Importance

Graduates and supervisors were asked to rate the importance of 19 job functions using a five point scale: 1 = no importance, 2 = minor importance, 3 = fairly important, 4 = important, and 5 = essential. Job functions were divided into those requiring clinical, administrative, interpersonal, and judgment-maturity skills. These divisions were not designed or ordered in a manner to make the divisions readily apparent to the respondent. Ratings by graduates and supervisors were analyzed to compare those holding clinical, administrative, generalist, or other positions, which included community and consultant dietitians.

Job functions rated highly by all graduates. Graduates' mean ratings of job function importance by job type are listed in Table 24. A significant difference existed between ratings of job function importance by graduates in different positions for 14 of the 19 job functions. Graduates were in agreement as to the importance of the job functions: "prepares acceptable reports," "communicates effectively," "assists others to change," "makes decisions based on adequate information," and "demonstrates professional development." These functions were rated from important to essential by all graduates. "Communicates effectively" and "makes decisions based on adequate information" were regarded most highly by all graduates. "Prepares acceptable reports" was the least highly rated of the five functions.

Clinical job functions. Graduates in clinical, generalist, and "other" positions, which included consulting and community positions, rated clinical job functions highly. All of the clinical skills except "consults as a member of the health care team" were rated with scores of 4.12 or higher by graduates in generalist or other positions, and mean scores of 4.54 or higher by clinical dietitians. KSU graduates may be employed in facilities in which the team approach to patient care is not well developed or the role of the dietitian on this team is not fully recognized. Clinical dietitians rated this function as slightly less than important, with a mean score of 3.83. The generalist and "other" dietitians ratings were 3.03 and 3.08, respectively, indicating they view this function as only a fairly important activity.

Graduates holding administrative positions rated all of the clinical job functions lower than their classmates. The clinical job functions

Table 24. 1976-1982 Graduates' mean ratings of job function importance by job type<sup>a</sup>

job function	mean ratings <sup>†</sup>				F
	clinical	administrative	generalist	other <sup>d</sup>	
clinical					
provides nutritional care plans	4.70	2.23	4.43	4.69	77.9***
applies basic sciences to diet plans	4.54	2.46	4.17	4.31	39.8***
communicates nutritional care data	4.69	1.85	4.37	4.27	58.3***
accepts responsibility for client's nutrition	4.73	2.35	4.23	4.12	45.9***
consults as a member of the health care team	3.83	1.48	3.03	3.08	20.7***
administrative					
performs personnel management	2.06	4.62	4.10	1.91	36.3***
plans nutritious menus	2.75	3.77	3.73	3.19	4.7**
uses available resources effectively	4.03	4.65	4.23	4.27	3.4*
follows established policies	2.13	4.46	3.73	2.40	23.2***
participates effectively on the management team	2.99	4.85	4.37	3.54	16.5***
prepares acceptable reports	3.83	4.04	3.87	4.12	<1.0
delegates functions appropriately	3.13	4.39	4.14	2.64	11.4***
functions within financial constraints	3.09	4.49	4.13	3.72	10.6***
interpersonal					
communicates effectively	4.69	4.69	4.60	4.96	2.6
uses appropriate educational methods and materials	4.75	4.08	4.50	4.85	11.3***
assists others to change	4.34	4.39	4.87	4.15	1.1
judgment and maturity					
functions within organizational goals	4.44	4.83	4.40	3.62	9.0***
makes decisions based on adequate information	4.58	4.73	4.40	4.58	<1.0
demonstrates professional development	4.44	4.35	4.40	4.58	<1.0

<sup>a</sup>N varied from 145 to 153.<sup>b</sup>Scale: 1 = no importance; 2 = minor importance; 3 = fairly important; 4 = important; 5 = essential.<sup>d</sup>Includes consulting, community and other positions.

\*p &lt; .05.

\*\*p &lt; .01.

\*\*\*p &lt; .001.

were viewed as only having minor importance. Mean scores ranged from 1.48 to 2.46 for these functions as rated by graduates in administrative positions.

Administrative job functions. Graduates in administrative and generalist positions rated administrative job functions highly. All the administrative skills except "plans nutritious menus" were rated with mean scores of 4.04 or higher by the administrative dietitians. "Performs personnel management," "uses available resources effectively," and "participates effectively on the management team" were regarded most highly by these graduates, with mean scores of 4.62, 4.65, and 4.85, respectively. "Plans nutritious menus" was rated with a mean score of 3.77. Menu planning may be an activity reserved for dietitians with more experience. Furthermore, graduates employed in facilities using cycle menus may not be involved in regular menu planning.

Graduates in generalist positions rated all of the administrative skills with mean scores of 4.10 or higher, except for "plans nutritious menus" (3.73), "follows established policies" (3.73), and "prepares acceptable reports" (3.87). Graduates in generalist positions regarded "uses available resources effectively" and "participates effectively on the management team" most highly, with mean scores of 4.33 and 4.37.

The clinical and "other" dietitians varied in their perceptions regarding the importance of administrative functions. "Uses available resources effectively" and "prepares acceptable reports" were considered important by these two groups of graduates. "Performs personnel management" and "participates effectively on the management team" were believed to be of only slightly more than minor importance.

Interpersonal and judgment-maturity job functions. Significant differences were reflected in ratings by graduates in various positions for "uses appropriate educational methods and materials" and "functions within organizational goals." Graduates in administrative positions scored "uses appropriate educational methods and materials" with a mean rating of 4.08 compared to dietitians in all other categories, who scored it above 4.50. All of the graduates except those in the "other" category rated "functions within organization goals" with mean scores of 4.40 or higher. The "other" dietitians, which included 11 of 30 graduates in consulting positions, rated this function with a mean score of 3.62. These graduates may not identify as closely with organizational goals as graduates employed in one facility.

Graduates were grouped into three approximately equal size categories by year of graduation to permit examination of possible changes in graduate perceptions. The 1976-1977 graduates were grouped together, as were the 1978-1979 and 1980-1982 graduates. Significant differences were found only for the interpersonal skill "communicates effectively." Mean ratings increased from 4.55 to 4.77 and to 4.81. The increased emphasis upon effective communication skills in the KSU dietetic program may be reflective of greater attention to this topic in the program, or due to more emphasis upon communication in the work place.

#### Supervisors' Ratings of Job Function Importance

Job functions rated highly by all supervisors. Supervisors' mean ratings of job function importance by job type are listed in Table 25. A significant difference existed between ratings of job function importance by supervisors of graduates in different positions for 15 of the 19 job



Table 25. Supervisors' mean ratings of job function importance by job type<sup>a</sup>

job function	mean ratings <sup>†</sup>				F
	clinical	administrative	generalist	other <sup>‡</sup>	
clinical					
provides nutritional care plans	4.66	2.39	4.23	4.15	34.6***
applies basic sciences to diet plans	4.58	2.52	3.92	4.10	28.4***
communicates nutritional care data	4.78	2.70	4.58	4.30	34.9***
accepts responsibility for client's nutrition	4.77	2.83	4.58	4.44	29.2***
consults as a member of the health care team	3.90	2.27	3.62	3.58	8.9***
administrative					
performs personnel management	1.74	4.50	3.96	2.00	36.2***
plans nutritious menus	2.86	3.35	4.09	3.00	4.8**
uses available resources effectively	3.94	4.44	4.63	4.45	5.1**
follows established policies	2.00	4.59	4.16	2.78	28.0***
participates effectively on the management team	3.10	4.77	4.62	3.37	14.8***
prepares acceptable reports	3.89	4.09	4.16	3.95	<1.0
delegates functions appropriately	2.61	4.04	4.29	2.38	16.2***
functions within financial constraints	3.42	4.32	4.46	3.85	5.7***
interpersonal					
communicates effectively	4.59	4.39	4.39	4.60	1.2
uses appropriate educational methods and materials	4.59	3.82	4.35	4.65	10.7***
assists others to change	4.12	4.17	4.35	4.65	3.0*
judgment and maturity					
functions within organizational goals	4.48	4.48	4.58	3.75	4.4**
makes decisions based on adequate information	4.48	4.52	4.50	4.50	<1.0
demonstrates professional development	4.47	4.26	4.56	4.45	1.1

<sup>a</sup>N varied from 117 to 133.<sup>b</sup>Scale: 1 = no importance; 2 = minor importance; 3 = fairly important; 4 = important; 5 = essential.<sup>c</sup>Includes consulting, community and other positions.

\*p &lt; .05.

\*\*p &lt; .01.

\*\*\*p &lt; .001.

functions. Supervisors were in agreement as to the importance of four functions: "prepares acceptable reports," "communicates effectively," "makes decisions based on adequate information," and "demonstrates professional development." These were the same functions which were agreed upon by the graduates. However, graduates agreed also upon the importance of the function "assists others to change."

The supervisors, like the graduates, rated the four functions from important to essential. "Prepares acceptable reports" was rated least highly of the four functions supervisors had unanimously agreed were important. Graduates also rated this function slightly less highly than the other job functions agreed upon as important.

Clinical job functions. Supervisors of graduates in all areas of practice, except for administrative, rated the clinical functions from important to essential. All of the clinical skills except "consults as a member of the health care team" had mean scores of 3.92 or higher by supervisors of generalists and "other" graduates, and 4.58 or higher by supervisors of clinical dietitians. Graduates also rated "consults as a member of the health care team" lower than the other clinical skills. Supervisors of administrative dietitians rated the clinical skills as having only minor importance, with mean scores ranging from 2.27 to 2.83. Graduates in administrative positions rated the importance of clinical skills lower than the supervisors.

Administrative job functions. Supervisors of administrative and generalist dietitians rated the administrative job functions as important to essential. All of the administrative skills except for "plans nutritious menus" had mean scores of 4.04 or higher from the supervisors

of administrative dietitians. "Performs personnel management," "follows established procedures," and "participates effectively on the management team" were rated as most important, with mean scores of 4.50, 4.59, and 4.77, respectively. "Plans nutritious menus," with a mean score of 3.35, was rated the lowest of all administrative job functions. Graduates also scored this function less highly than the other administrative functions.

Supervisors of generalist dietitians rated all of the administrative job functions with mean scores of 4.09 or higher, except for "performs personnel management," which had a mean score of 3.96. "Participates effectively on the management team" and "uses available resources effectively" were rated highest, with scores of 4.62 and 4.63, respectively.

Supervisors of clinical and "other" dietitians varied in their perceived importance of the administrative functions. "Uses available resources" was rated highest of all the functions by these two groups, with a mean score of 4.45 by the supervisors of the "other" dietitians. Overall, "uses available resources effectively," "prepares acceptable reports," and "functions within financial constraints" were rated as important. Those functions believed by supervisors of clinical and "other" dietitians to have only minor importance were "performs personnel management," "follows established policies," and "delegates functions appropriately."

Supervisors were also grouped by the graduates' year of graduation to permit an examination of changes in ratings over the years. The 1976-1977 graduates' supervisors were grouped together, as were the supervisors of the 1978-1979 and 1980-1982 graduates. A significant difference was found among the three groups of supervisors for only one job function, "uses available resources effectively." Supervisors of the 1976-1977

graduates rated this function higher than the supervisors of 1980-1982 and 1978-1979 graduates, with scores of 4.49, 4.28, and 3.90, respectively. Supervisors may have been influenced in their assessment of the importance of this activity due to financial pressures existing in their institutions at the time when the questionnaires were completed. Graduates grouped into the same categories did not differ significantly in their ratings of this job function.

Interpersonal and judgment-maturity job functions. A significant difference existed between ratings of job function importance by supervisors of graduates in different positions for three of the six interpersonal and judgment-maturity functions. The interpersonal function "uses appropriate educational methods and materials" was rated significantly lower by supervisors in administrative positions. Supervisors of clinical and administrative dietitians rated "assists others to change" with scores of 4.12 and 4.17, whereas the generalist and "other" supervisors rated this function with mean ratings of 4.35 and 4.65. The third function with a significant difference in rating was the judgment-maturity activity "functions within organizational goals." Supervisors of graduates in "other" positions rated this function with a mean score of 3.75, compared to mean ratings of 4.48 and higher by all other supervisors. Significant differences occurred among graduates grouped by year of graduation when rating the interpersonal function "communicates effectively," differences that were not apparent among supervisors grouped in the same manner.

### Correlation between Graduates' and Supervisors' Mean Ratings

The correlation between mean ratings by graduates and supervisors on importance of job functions is located in Table 26. Statistically significant correlations were found for 13 of the 19 job functions. The Pearson correlation shows, overall, graduates and supervisors were in agreement as to the importance of the job functions. Significant correlations did not exist for "uses available resources," "prepares acceptable reports," "communicates effectively," "assists others to change," "makes decisions based on adequate information," and "demonstrates professional development." The restricted range of data for these functions is the probable cause for the lack of significant correlations.

### Graduates' Ratings of Educational Preparation

Graduates were asked to rate their educational preparation for the performance of 19 job functions using a five point scale: 1 = definite weakness, 2 = more weakness than strength, 3 = in between, 4 = more strength than weakness, and 5 = definite strength. Job functions were divided into those requiring clinical, administrative, interpersonal, and judgment-maturity skills. Graduates whose position did not require the use of a particular job function would not be expected to accurately assess their educational preparation in that area. Therefore, only those job functions rated as important with mean scores of 4.00 or higher (Table 24) were considered in relation to preparation ratings.

Clinical job functions. Graduates' mean ratings of educational preparation for performance of job functions are located in Table 27. Graduates in all positions except administration rated all the clinical skills except for "consults as a member of the health care team" as

Table 26. Correlation between mean ratings by 1976-1982 graduates and supervisors on importance of job functions†

job function	correlation coefficient
clinical	
provides nutritional care plans	.63**
applies basic sciences to diet plans	.62**
communicates nutritional care data	.71**
accepts responsibility for client's nutrition	.64**
consults as a member of the health care team	.48**
administrative	
performs personnel management	.84**
plans nutritious menus	.48**
uses available resources effectively	.18
follows established policies	.62**
participates effectively on the management team	.62**
prepares acceptable reports	.17
delegates functions appropriately	.35**
functions within financial constraints	.36**
interpersonal	
communicates effectively	.07
uses appropriate educational methods and materials	.38**
assists others to change	.09
judgment and maturity	
functions within organizational goals	.21*
makes decisions based on adequate information	-.09
demonstrates professional development	.19
average Pearson correlation, using r to z transformation	.43

†N varied from 117 to 133.

\*Pearson r statistically significant,  $p < .01$ .

\*\*Pearson r statistically significant,  $p < .001$ .

Table 27. 1976-1982 Graduates' mean ratings of educational preparation for performance of job functions by job type\*

Job function	mean ratings†				F
	clinical	administrative	generalist	other‡	
clinical					
provides nutritional care plans	4.27¶	3.73	4.25¶	4.12¶	3.9*
applies basic sciences to diet plans	3.62¶	3.58	4.00¶	3.96¶	1.1
communicates nutritional care data	4.45¶	4.12	4.43¶	4.54¶	1.9
accepts responsibility for client's nutrition	4.35¶	4.00	4.30¶	4.39¶	1.6
consults as a member of the health care team	4.18	4.89	4.00	3.92	1.1
administrative					
performs personnel management	3.59	3.35¶	3.30¶	3.22	1.5
plans nutritious menus	4.12	4.12	4.17	4.27	<1.0
uses available resources effectively	4.10¶	4.27¶	4.03¶	4.19¶	<1.0
follows established policies	3.92	4.27¶	4.17	4.08	1.5
participates effectively on the management team	4.16	4.19	4.14	4.32	<1.0
prepares acceptable reports	3.97	3.81¶	4.00	3.79¶	<1.0
delegates functions appropriately	3.96	3.81¶	3.83¶	3.92	<1.0
functions within financial constraints	3.70	3.15¶	3.43¶	3.52	2.1
interpersonal					
communicates effectively	4.16¶	4.15¶	4.10¶	4.39¶	<1.0
uses appropriate educational methods and materials	4.25¶	4.08¶	4.13¶	4.19¶	<1.0
assists others to change	3.96¶	3.65¶	3.63¶	3.81¶	1.5
judgment and maturity					
functions within organizational goals	4.44¶	4.50¶	4.23¶	4.42	1.1
makes decisions based on adequate information	4.38¶	4.23¶	4.23¶	4.31¶	<1.0
demonstrates professional development	4.34¶	3.96¶	3.97¶	4.35¶	2.8*

\*N varied from 145 to 153.

†Scale: 1 = definite weakness; 2 = more weakness than strength; 3 = in between; 4 = more strength than weakness; 5 = definite strength.

‡Includes consulting, community and other positions.

§Job functions rated by graduates as important to essential with mean importance scores of 4.00 or higher refer to Table 26.

¶p &lt; .05.

important. The clinical dietitians were favorable toward their preparation for "provides nutritional care plans," "communicates nutritional care plans," and "accepts responsibility for client's nutrition." Mean ratings for these job functions ranged from 4.35 to 4.45. Graduates in clinical positions were slightly critical of their preparation for "applies basic sciences to diet plans," which had a mean score of 3.82. Generalist dietitians, like clinical dietitians, were favorable towards their preparation for all of the clinical job functions.

Graduates in positions classified as "other" were favorable toward their preparation for "communicates nutritional care data." They were slightly critical of the preparation for "applies basic sciences to diet plans." This function received a mean score of 3.96 by this group of graduates.

Administrative job functions. Graduates in administrative positions rated all of the administrative functions as important except "plans nutritious menus." Preparation for "uses available resources effectively," "follows established policies," and "participates effectively on the management team" were rated favorably by administrative dietitians. Mean scores for these functions ranged from 4.19 to 4.27. Graduates were slightly critical of their preparation for "prepares acceptable reports" and "delegates functions appropriately," both of which had mean scores of 3.81. Administrative dietitians were most critical of their preparation for "performs personnel management" and "functions within financial constraints." These functions received mean scores of 3.35 and 3.15, respectively. Providing hands-on educational experiences in either of these areas can be difficult due to the sensitive nature of personnel issues and the complexity of financial planning.



Graduates in generalist positions had rated all of the administrative positions as important except for "plans nutritious menus," "follows established policies," and "prepares acceptable reports." Graduates were favorable toward their preparation for "uses available resources effectively" and "participates effectively on the management team." As with the administrative dietitians, the generalist dietitians were critical of their preparation for "delegates functions appropriately" (3.83), "functions within financial constraints" (3.43), and "performs personnel management" (3.30).

Graduates in clinical and in "other" positions rated the administrative job function "uses available resources effectively" as important. Both of these groups of graduates rated their preparation for the performance of this function favorably with mean scores of 4.10 and 4.19. Also, graduates in "other" positions rated the administrative function "prepares acceptable reports" as important. They were mildly critical of their preparation for this function, as were the administrative dietitians.

Interpersonal and judgment-maturity job functions. Graduates in all areas of practice were favorable towards their preparation for the performance of the job functions "communicates effectively," "uses appropriate educational methods and materials," "functions within organizational goals," and "makes decisions based on adequate information." All of the graduates were somewhat critical of their preparation for the function "assists others to change." Mean scores ranged from 3.63 to 3.96 for this function. Graduates in clinical and "other" positions were favorable towards their preparation for "demonstrates professional development" with mean scores of 4.34 and 4.35. Significantly less

favorable toward preparation for this function were graduates in administrative and generalist positions, whose mean ratings were 3.96 and 3.97. Development of a graduates' abilities in these areas are subject to maturation and professional experience and hence are not functions for which graduates can be expected to be fully prepared upon completion of an educational program.

Graduates' ratings by year of graduation. Graduates' mean ratings of job function importance which display significant differences between groups of graduates are located in Table 28. Such differences occurred in the four functions "performs personnel management," "plans nutritious menus," "uses available resources effectively," and "makes decisions based on adequate information." In general, the more recent graduates rated the educational preparation for each of these functions more positively than the earlier graduates, a trend not evident among the supervisors' responses. While recent graduates did rate "performs personnel management" and "makes decisions based on adequate information" higher than the earlier graduates, these two job functions were not highly rated. Graduates were most critical of their preparation for "performs personnel management." The 1978-1979 graduates rated this function highest with a mean score of 3.63. The function "makes decisions based on adequate information" was rated highest by the 1980-1982 graduates, with a mean score of 3.98.

#### Supervisors' Ratings of Graduate Performance

Supervisors were asked to rate the performance of the graduate working under their direction in each of the 19 job functions. The five point scale used was: 1 = unsatisfactory, 2 = definitely needs to improve,

Table 28. 1976-1982 Graduates† significantly different mean ratings of educational preparation for performance of job functions by years of graduation‡

job function	mean ratings			F
	1976-1977	1978-1979	1980-1982	
administrative				
performs personnel management	3.15	3.63	3.50	3.8*
plans nutritious menus	3.89	4.31	4.24	3.9*
uses available resources effectively	3.90	4.19	4.26	3.1*
judgment and maturity				
makes decisions based on adequate information	3.56	3.85	3.98	3.6*

†N varied from 145 to 153.

‡Scale: 1 = definite weakness; 2 = more weakness than strength, 3 = in between; 4 = more strength than weakness; 5 = definite strength.

\*p < .05.

3 = acceptable, 4 = performs effectively, and 5 = outstanding. The supervisors' assessment of the graduates is another means to examine how successful the program was in preparing competent entry-level practitioners. Supervisors would not be expected to assess the graduate's performance of job functions which are not important to the position. Therefore, only those job functions rated as important by the supervisors with mean scores of 4.00 or higher (Table 25) were considered in relation to performance ratings.

Clinical job functions. Supervisors' mean ratings of educational preparation for graduate performance of job functions are located in Table 29. Supervisors of clinical dietitians and graduates in "other" positions rated all of the clinical skills as important except for "consults as a member of the health care team." Supervisors of clinical dietitians rated preparation for all of the clinical skills favorably. Supervisors of graduates in "other" positions were mildly critical toward graduate performance of "provides nutritional care plans" and "applies basic sciences to diet plans." Graduates had also been slightly critical of their preparation for "applies basic sciences to diet plans."

Three of the clinical job functions were considered important by the supervisors for the generalist dietitians. Performance for these functions, which included "provides nutritional care plans," "communicates nutritional care data," and "accepts responsibility for client's nutrition" were rated favorably by the supervisors, with mean scores of 4.23, 4.39, and 4.31, respectively.

Administrative job functions. Supervisors of graduates in administrative positions rated all of the administrative functions as important

Table 25. Supervisors' mean ratings of educational preparation for graduate performance of job functions by job type<sup>a</sup>

job function	mean ratings <sup>b</sup>				F
	clinical	administrative	generalist	other <sup>c</sup>	
clinical					
provides nutritional care plans	4.10 <sup>†</sup>	3.67	4.22 <sup>†</sup>	3.96 <sup>†</sup>	3.6*
applies basic sciences to diet plans	4.17 <sup>†</sup>	3.75	4.08	3.90 <sup>†</sup>	2.3
communicates nutritional care data	4.17 <sup>†</sup>	3.56	4.39 <sup>†</sup>	4.00 <sup>†</sup>	5.6**
accepts responsibility for client's nutrition	4.30 <sup>†</sup>	3.88	4.31 <sup>†</sup>	4.30 <sup>†</sup>	3.0*
consults as a member of the health care team	4.05	3.58	4.30	4.00	1.7
administrative					
performs personnel management	3.33	4.00 <sup>†</sup>	4.22	3.71	13.2***
plans nutritious menus	3.66	3.86	3.96 <sup>†</sup>	4.07	1.0
uses available resources effectively	3.82	4.00 <sup>†</sup>	4.04 <sup>†</sup>	4.16 <sup>†</sup>	1.4
follows established policies	3.44	4.14 <sup>†</sup>	4.39 <sup>†</sup>	3.56	10.6***
participates effectively on the management team	3.74	4.23 <sup>†</sup>	4.35 <sup>†</sup>	3.86	4.7**
prepares acceptable reports	3.94	3.59 <sup>†</sup>	4.24 <sup>†</sup>	4.11	1.5
delegates functions appropriately	3.74	3.65 <sup>†</sup>	4.20 <sup>†</sup>	3.25	5.0**
functions within financial constraints	3.75	3.91 <sup>†</sup>	4.21 <sup>†</sup>	4.00	2.9*
interpersonal					
communicates effectively	4.20 <sup>†</sup>	3.91 <sup>†</sup>	4.27 <sup>†</sup>	4.33 <sup>†</sup>	1.3
uses appropriate educational methods and materials	4.25 <sup>†</sup>	3.87	4.19 <sup>†</sup>	4.42 <sup>†</sup>	2.8*
assists others to change	3.90 <sup>†</sup>	3.63 <sup>†</sup>	4.04 <sup>†</sup>	4.16 <sup>†</sup>	1.1
judgment and maturity					
functions within organizational goals	4.14 <sup>†</sup>	4.13 <sup>†</sup>	4.28 <sup>†</sup>	4.29	1.2
makes decisions based on adequate information	4.00 <sup>†</sup>	3.91 <sup>†</sup>	4.15 <sup>†</sup>	4.21 <sup>†</sup>	<1.0
demonstrates professional development	4.22 <sup>†</sup>	4.17 <sup>†</sup>	4.24 <sup>†</sup>	4.39 <sup>†</sup>	<1.0

<sup>a</sup>N varied from 117 to 133.<sup>b</sup>Scale: 1 = unsatisfactory; 2 = definitely needs to improve; 3 = acceptable; 4 = performs effectively; 5 = outstanding performance.<sup>c</sup>includes consulting, community and other positions.

Job functions rated by supervisors as important to essential with mean importance scores of 4.00 or higher refer to Table 25.

\*p &lt; .05.

\*\*p &lt; .01.

\*\*\*p &lt; .001.

except "plans nutritious menus." Supervisors believed graduates were performing effectively for the functions "performs personnel management" (4.00), "uses available resources effectively" (4.00), "follows established policies" (4.14), and "participates effectively on the management team" (4.23). Supervisors were slightly critical of graduates' abilities to "prepare acceptable reports" and "function within financial constraints." Supervisors were most critical of "delegates functions appropriately," which was rated with a mean score of 3.65. Graduates also showed concern for their preparation in these areas (Table 27). Additionally, the graduates showed concern for the educational preparation for "performs personnel management" even though the supervisors were not critical of their performance in this area.

Supervisors of generalist dietitians rated all of the administrative functions as important except "performs personnel management." Supervisors rated graduates' performances in all the important administrative functions highly except for "plans nutritious menus." Supervisors were slightly critical of graduates' abilities in this area, as reflected by a mean score of 3.96 for this job function. Graduates were not critical of their preparation for "plans nutritious menus" (Table 27). However, graduates were critical of their preparation for "performs personnel management," "delegates functions appropriately," and "functions within financial constraints."

Supervisors of graduates in "other" positions rated the administrative function "uses available resources" as important. Supervisors were pleased with graduate performance in this area as indicated by a mean score of 4.16 for this job function. Graduates had rated this function

as important as well, and were favorable toward their preparation for that activity.

Interpersonal and judgment-maturity job functions. All of the interpersonal and judgment-maturity functions were rated as important by supervisors for all graduates except "uses appropriate educational methods and materials. Supervisors of administrative dietitians represented the exception in that they rated this function as less than important. Supervisors of generalist dietitians and graduates in "other" positions rated graduate performance in all of the interpersonal and judgment-maturity functions favorably. While a significant difference between performance mean scores of supervisors did not exist for any of the functions considered important, supervisors of administrative dietitians rated graduate performance slightly below 4.00 for "communicates effectively," "assists others to change," and "makes decisions based on adequate information." Supervisors of clinical dietitians rated "assists others to change" below 4.00. The remainder of the supervisors scored all of these functions with mean ratings of 4.00 or above.

In contrast, all graduates rated their preparation for "assists others to change" somewhat critically. The administrative and generalist dietitians rated their preparation for "demonstrates professional development" significantly less favorably than the clinical dietitians and graduates in "other" positions. Graduates, unlike the supervisors, did not rate their preparation for "communicates effectively" and "makes decisions based on adequate information" critically.

Overall assessment of graduate performance. Supervisors' ratings of a graduate's overall desirability as an employee are located in Table 30.

Table 30. Supervisors'\* mean ratings of 1976-1982 graduates' overall ability and performance by job type

overall ability and performance	mean ratings†				mean for all positions
	clinical	adminis- trative	generalist‡	other	
professional knowledge and skill#	3.98	3.82	4.00	4.05	3.96
interpersonal relations	4.03	4.00	4.09	4.21	4.04
working effectiveness	4.11	3.96	4.19	4.21	4.08
overall desirability as employee#	4.24	4.26	4.33	4.32	4.26

\*N = 133.

†Scale: 1 = inferior, 2 = below average, 3 = average, 4 = above average, 5 = superior.

‡Includes consulting, community, and other.

#All ratings were 3.00 or higher.

The five point scale used was: 1 = inferior, 2 = below average, 3 = average, 4 = above average, and 5 = superior. Graduates were rated as above average in "interpersonal relations," "working effectiveness" and "overall desirability as an employee." The ratings for "professional knowledge and skill" were slightly below 4.00; however, none of the graduates were rated below 3.00 for this category, nor for "overall desirability as an employee." In general, supervisors were pleased with the KSU-CUP graduates they had hired.



### Comparison to Previous Study

The first five years of annual evaluations of the KSU-CUP was reported in 1978 (1). That study was based on data from 111 graduates, from 1971 through 1975, and their supervisors. Similarities between the job function importance ratings from the first study and the current research are apparent. Then, as now, the clinical job function "consults as a member of the health care team" was rated less highly than the other clinical functions. Also, the administrative dietitians in both studies rated "plans nutritious menus" as less important than the other administrative functions,

The 1976-1982 graduates and their supervisors rated the program overall more favorably than the 1971-1975 graduates. Administrative dietitians in the first study had been somewhat critical of "makes decisions based on adequate information" and "uses available resources effectively." The more recent graduates employed in administrative positions rated both functions with mean scores above 4.00, indicating their degree of preparation was more a strength than a weakness. Overall, the 1976-1982 graduates in generalist positions and their supervisors rated few of the 19 functions below 4.00, whereas the earlier graduates had rated nearly half of the functions below 4.00 and their supervisors rated 11 of 19 functions below 4.00. However, in both studies the generalist dietitians and their supervisors overall rated preparation more favorably than all other graduates and supervisors. As a generalist program, a positive evaluation by those in generalist positions indicates the program is successful in its mission.

Preparation for "performs personnel management" and "functions within financial constraints" were rated somewhat critically by both

groups of graduates in administrative and generalist positions. Personnel management is an area in which classroom education cannot fully prepare the student, yet experiences are difficult to provide due to the sensitive nature of many personnel concerns. The ability to function within financial constraints and prepare budgets is another area that is not easily taught. "Real" experiences in financial planning are not readily available, although students have experiences with the components of financial management and with hypothetical cases. However, with the exception of these two functions, the recent graduates and their supervisors were generally more favorable toward the educational preparation offered at KSU than the 1971-1975 graduates.

Supervisors' assessments of the overall ability and performance of graduates were similar in both studies. Graduates were rated with scores indicating levels of only slightly below above average, to above average and higher in "professional knowledge and skill," "interpersonal relations," "working effectiveness," and "overall desirability as an employee" by supervisors in both evaluations. The acceptability of a graduate as an employee is an important measure of the success of an educational program.

Roach et al. (1) concluded in the first study competent entry-level graduates were being prepared, individuals who were pleased with their education and whose supervisors were positive toward their abilities. This second study, a continuation of the first, also shows the KSU-CUP is effectively preparing graduates for entry-level dietetic practice. Furthermore, the 1976-1983 graduates and their supervisors were more favorable toward their educational preparation in most areas when compared to the earlier study.

## SUMMARY AND CONCLUSIONS

Kansas State University's coordinated undergraduate program in dietetics received approval from The American Dietetics Association in 1971, and thereby became the second such approved program. Dietetics programs have traditionally involved four years of college course work resulting in a Bachelor's degree, followed by an internship. Coordinated undergraduate dietetic programs consist of a didactic component and concurrent practice for professional courses within a four year curriculum.

Evaluation of the KSU-CUP has been a priority since its inception. Annual graduate and supervisor evaluations have been sent out beginning with the first class (1). The results of the 1971-1975 graduate and supervisor responses were reported in 1978, with the conclusion that competent practitioners were being prepared. Continuing evaluation of the KSU-CUP provides assurance that contemporary graduates of its program are prepared to meet the demands of a constantly changing profession.

The purpose of this study was to further evaluate the coordinated undergraduate program in dietetics at Kansas State University. The specific objectives were to:

- identify professional and educational characteristics of graduates ten or more years following graduation;
- evaluate the quality of the educational experience offered by the KSU-CUP as perceived by that group;
- assess the effectiveness of the KSU-CUP through the ratings of the 1976-1982 graduates and their supervisors from six months to one year following graduation; and

- propose changes in the KSU-CUP program to enhance further the capabilities and competence levels of its graduates.

Accomplishment of the research objectives was achieved through a two part study.

#### 1971-1974 Graduates

The population for the first part of this research was the 71 graduates of the KSU-CUP during the first four years of the program. Questionnaires were sent to the graduates during July, 1984. Sixty (84.5%) of the graduates responded.

The instrument was designed to collect data on graduates' educational achievements and aspirations, professional involvement, and employment history. Additionally, graduates were asked to evaluate their educational experiences at KSU. A pilot test was conducted to assess the effectiveness of the draft instrument prior to use in the study.

Twenty-five (41.7%) of the graduates had completed a Master's degree and two (3.3%) had received doctoral degrees. Nutrition/clinical dietetics was the subject area chosen by most graduates (44.0%) for their Master's degrees. More than half of the graduates who responded (55.1%) have or anticipate completing a degree beyond their Bachelor's degree. Eighteen percent of the graduates have or plan to complete a doctoral degree.

Most graduates (90.0%) have maintained their ADA membership continuously. Forty-three percent of the graduates hold memberships in one or more professional organizations in addition to ADA. Attendance at state and national dietetic meetings has been common. During the past three years, 73.3% of the graduates attended a state dietetic meeting and

28.4% attended a national dietetic meeting. Graduates made professional contributions to their communities during the past two years through public and media presentations, and community organizations.

Seventy-two percent of the graduates were employed as of summer, 1984. The mean salary range for those employed full time was \$22,000-\$23,999. Twenty percent of the graduates were employed part-time. Family responsibilities were the primary reason for 28.3% of the graduates being unemployed.

Most graduates (64.6%) chose clinical dietetics for their first position, while management practice was the area selected by the highest number of graduates (33.3%) for their most recent position. Twenty-seven percent of the graduates are currently or were most recently engaged in private practice or consulting. Slightly over half (51.9%) of the graduates were employed in hospitals. Other health care facilities and nursing homes were the place of employment for 16.8% of the graduates.

Position titles were used to define graduates' current position levels as upper, intermediate, and entry, and were then checked with the graduate's salary to assess accuracy of the definitions. Forty percent of the graduates were most recently employed in positions defined as entry-level, while 34.6% were in intermediate level and 25.0% in upper level positions. Career progression was defined by the number of upward steps in position levels between the graduate's first position and most recent position. Forty-three percent of the graduates had not progressed upwards, while 13.0% had moderate and 43.5% had high progression. Graduates who have had a high level of progression are more likely to be in private practice, consulting, general practice, education or "other" as opposed to management or clinical dietetic practice.

Graduates held favorable opinions of their educational experiences at KSU. "Written/oral communications" was considered to be the most essential subject area in the execution of their professional responsibilities. "Computerization in nutritional care" and in "foodservice management" were rated as relatively less important. However, graduates were critical of their preparation in computer use and suggested additional course work in this area be added to the program. Other subjects for which graduates were critical of their preparation, ordered beginning with the least satisfactory degree of preparation, included: "parenteral/enteral nutrition," "quality assurance audits," "marketing dietetic services," "budget planning," "labor relations/unions," and "cost control." Graduates were most favorable toward their preparation for "menu planning" and "recipe standardization."

#### 1976-1982 Graduates

The second part of the research was a continuation of work previously reported by Roach et al. (1) which had studied the 1971-1975 graduates and their supervisors. The research population for this study was 202 KSU-CUP graduates from 1976 through 1982 and their supervisors. Graduates received two questionnaires, one to be completed personally and one to be completed by their immediate supervisors, from six months to one year following graduation. One hundred seventy-three (85.6%) of the graduates responded. A total of 133 supervisors returned the survey.

Two corresponding instruments had been previously prepared for recent graduates and their supervisors (1). The graduates' questionnaire was designed to collect information on employment status, graduate school plans, and an evaluation of the KSU-CUP. The supervisor's survey was

prepared to collect data on the KSU-CUP through an evaluation of the graduate.

Nine (5.2%) of the recent graduates had started graduate school within the first 12 months following graduation from KSU. Of these, six anticipated earning a Master's degree and two expected to complete a doctoral degree. Eighty-three percent of the graduates reported being currently employed in full time positions. Fifteen (9.0%) indicated they were employed part-time. Most graduates (41.0%) were employed in clinical positions. The mean salary range of the 1982 graduates was \$15,000-\$15,999.

Graduates and supervisors were asked to rate the importance of 19 job functions. Overall, graduates in clinical positions and their supervisors rated nearly all of the functions as important except for the administrative activities. Likewise, graduates in administrative positions and their supervisors rated nearly all of the functions as important except for the clinical activities. Graduates in generalist positions and their supervisors rated nearly all of the 19 functions as important.

Graduates and their supervisors were favorable towards their preparation in most areas. The clinical and generalist dietitians were slightly critical of their preparation for "applies basic sciences to diet plans." Graduates in administrative were slightly critical of their preparation for "prepares acceptable reports" and "delegates functions appropriately." Administrative and generalist dietitians were most critical of their preparation for "performs personnel management" and "functions within financial constraints." All graduates were somewhat critical of their preparation for the job function "assists others to change." An examination of graduates' mean ratings by year of graduation indicated

the recent graduates rated their preparation for "performs personal management," "plans nutritious menus," "uses available resources effectively," and "makes decisions based on adequate information" significantly more favorably than the earlier graduates. Supervisors were slightly critical of many of the same job functions as the graduates; however, supervisors of administrative dietitians were not critical of their ability to "perform personnel management." Overall, the supervisors were very pleased with the KSU-CUP graduates they had hired.

### Conclusions

Kansas State University's CUP graduates favorably evaluated their education. The 1971-1974 graduates were positive toward their KSU education when surveyed ten or more years after graduation. The 1976-1982 graduates were favorable toward their educational preparation for entry-level dietetic practice when surveyed six months to one year after graduation. Supervisors of recent graduates were pleased with the performance and ability of the entry-level dietitians they had hired. Professionally, graduates have been successfully employed as dietitians ten or more years after graduation as well as within the first year.



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## APPENDIXES

APPENDIX A

Correspondence and Final Instrument for 1971-1974 Graduates

## (KSU Letterhead)

June 29, 1984

Dear :

Evaluation of the coordinated program in dietetics at Kansas State University is an important means by which the program can be improved to assure thorough preparation of students for future practice of dietetics. As part of this evaluation process, you should have received a questionnaire one year post graduation. Study results from 1971 through 1975 surveys were published in the Journal of The American Dietetic Association in August 1978. Analysis of the data from surveys of graduates from 1976 through 1983 is in progress. A study which examined the professional activities of KSU-CUP graduates was published in the March 1983 issue of the Journal of The American Dietetic Association.

Now we would once again appreciate your time and cooperation in the completion of a questionnaire for KSU-CUP graduates who received their Bachelor degrees ten or more years ago. Three kinds of information are requested in this survey: educational and professional activities, evaluation of the coordinated undergraduate program in dietetics, and a record of employment. All information you provide will be strictly confidential. While the surveys are numbered, your name will not be associated with the survey. The number permits follow-up of those questionnaires not returned. Although complete information would be helpful, if there are questions you would prefer to omit, you may do so.

Please complete the survey and return in the enclosed stamped envelope. Also enclosed is a form to help us update our graduate address file. A separate small stamped envelope is provided for the return of this information. Thank you for your time and assistance.

Sincerely,

Barbara M. Scheule, R.D.  
Graduate Student

Faith Roach, Ph.D., R.D.  
Associate Professor  
Dietetics, Restaurant, and  
Institutional Management

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Enclosures



(KSU Letterhead)

August 3, 1984

Dear :

We need your help! A few weeks ago we mailed you a questionnaire. Perhaps you did not receive it, it was misplaced, or it is still in the mail, but, we would still like to hear from you. As one of the early graduates from KSU's coordinated undergraduate program in dietetics, you have valuable information which can assist us in our goal to prepare well qualified entry-level dietitians. We are eager to review the results of the survey; however, we have currently received only 38% of the questionnaires. Please complete your survey as soon as possible.

All information provided is strictly confidential. Your name will not be linked with your responses. Surveys have been numbered only for the purpose of follow-up of missing responses.

Separate stamped envelopes have been provided for the return of the survey and address information form. Your responses are important to assure an unbiased representation of 1971 through 1974 KSU-CUP graduates. We would appreciate hearing from you as soon as possible.

Sincerely,

Barbara M. Scheule, R.D.  
Graduate Student

Faith Roach, Ph.D., R.D.  
Associate Professor  
Dietetics, Restaurant, and  
Institutional Management

jj

Enclosures



Department of Diabetics, Restaurant  
and Institutional Management

Julien Hall  
Manhattan, Kansas 66506  
(913) 532-1021

Please complete this survey based upon your undergraduate education and return in the enclosed stamped envelope by July 20. Thank you for your help.

Demographic Information

1. Please indicate the year you (a) received your degree from this department, and (b) accepted professional employment after graduating.

a. Graduation  
\_\_\_\_ 1971  
\_\_\_\_ 1972  
\_\_\_\_ 1973  
\_\_\_\_ 1974

Other, please specify \_\_\_\_\_

b. Post graduation employment

\_\_\_\_ 1971  
\_\_\_\_ 1972  
\_\_\_\_ 1973  
\_\_\_\_ 1974  
\_\_\_\_ 1975

Other, please specify \_\_\_\_\_  
have not been employed profes-  
sionally since graduation

2. The following information regarding annual salary would be helpful, but if you prefer to omit the question, please do so.

a. Beginning salary for initial post  
graduation position:  
\_\_\_\_ less than \$6,000  
\_\_\_\_ \$6,000 to \$7,999  
\_\_\_\_ \$8,000 to \$9,999  
\_\_\_\_ \$10,000 to \$11,999  
\_\_\_\_ \$12,000 to \$13,999  
\_\_\_\_ greater than \$14,000

If this was a part time position, indicate  
the fraction of full time (e.g. 1/2, 1/3,  
1/4) \_\_\_\_\_

c. Salary range for the current fiscal year  
(current position):

\_\_\_\_ less than \$16,000  
\_\_\_\_ \$16,000 to \$17,999  
\_\_\_\_ \$18,000 to \$19,999  
\_\_\_\_ \$20,000 to \$21,999  
\_\_\_\_ \$22,000 to \$23,999  
\_\_\_\_ \$24,000 to \$25,999  
\_\_\_\_ \$26,000 to \$27,999  
\_\_\_\_ \$28,000 to \$29,999  
\_\_\_\_ \$30,000 to \$31,999  
\_\_\_\_ \$32,000 to \$33,999  
\_\_\_\_ greater than \$34,000  
\_\_\_\_ not currently employed

If this is a part time position, indicate  
the fraction of full time (e.g. 1/2, 1/3,  
1/4) \_\_\_\_\_

- c. What is the highest annual salary you  
have been paid for a full time position  
(if different than your current  
salary)? \$ \_\_\_\_\_

Educational and Professional Activities

3. Educational status and plans

a. What degree(s) have you earned beyond  
your Bachelor's? Indicate special-  
ization using appropriate number(s)  
from the code below.

Master's \_\_\_\_\_ Doctorate \_\_\_\_\_  
Subject area ( ) Subject area ( )

b. What is the highest degree you expect  
to earn? \_\_\_\_\_ Bachelor's \_\_\_\_\_  
\_\_\_\_\_ Master's \_\_\_\_\_ Doctorate \_\_\_\_\_

Subject area ( ) Subject area ( )

Subject area code numbers:

- (1) = Nutrition/Clinical diabetics  
(2) = Public health nutrition  
(3) = Foodservice management  
(4) = Food science  
(5) = Education  
(6) = Business administration  
(7) = Medical doctor  
(8) = Juris doctor  
(9) = Other, please specify \_\_\_\_\_  
\_\_\_\_\_ (Master's)  
\_\_\_\_\_ (Doctorate)

c. Have you taken any graduate courses  
during 1983 or 1984?

\_\_\_\_ yes \_\_\_\_\_ no

4. From the following list, check your  
current professional memberships:

\_\_\_\_ American Diabetes Association  
\_\_\_\_ American Dietetic Association  
\_\_\_\_ American Kidney Association  
\_\_\_\_ American Public Health Association  
\_\_\_\_ American School Food Service  
\_\_\_\_ Association  
\_\_\_\_ American Society for Foodservice  
\_\_\_\_ Hospital Administrators  
\_\_\_\_ American Society for Parenteral and  
\_\_\_\_ Enteral Nutrition  
\_\_\_\_ National Association of Colleges  
\_\_\_\_ and Universities Food Services  
\_\_\_\_ National Council on Rural Nutrition  
\_\_\_\_ Society of Nutrition Education  
\_\_\_\_ Other, please specify \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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5. When did you become a member of The American Dietetic Association (ADA)?
- ☐ Have not become a member
  - ☐ Immediately upon graduation
  - ☐ 1-2 years post graduation
  - ☐ 3-4 years post graduation
  - ☐ 5-6 years post graduation
  - ☐ 7-8 years post graduation
  - ☐ 9 or more years post graduation
6. Since you first became a member of ADA have you maintained your membership continuously?
- ☐ Yes
  - ☐ No
- If you checked "no" please answer the following:
- a. Are you now a member?
- ☐ Yes
  - ☐ No
- b. For how many years did your membership last?
- ☐ 1-2 years
  - ☐ 3-4 years
  - ☐ 5-6 years
  - ☐ 7-8 years
  - ☐ 9 or more years
- c. What was the main reason you discontinued your membership?
- ☐ Change of profession
  - ☐ High cost
  - ☐ Inactive in profession due to family commitment
  - ☐ Dissatisfied with ADA services
  - ☐ Other, please specify \_\_\_\_\_
7. Registration status
- a. When did you become a Registered Dietitian?
- ☐ Have never been registered
  - ☐ 1 year post graduation
  - ☐ 2-3 years post graduation
  - ☐ 4 or more years post graduation
- b. Since you first became a Registered Dietitian have you maintained your registration continuously?
- ☐ Yes
  - ☐ No
8. How many dietetic association meetings have you attended in the last 3 years?
- ☐ State meetings
  - ☐ National meetings
9. How frequently have you attended regional or district dietetic association meetings in the past year?
- ☐ Nearly all
  - ☐ More than half
  - ☐ About half
  - ☐ Less than half
  - ☐ None, or only once
10. Please list the ADA practice group(s) to which you belong:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
11. Indicate the number of years you have participated in ADA professional activities at the district, state, and/or national level.
- \_\_\_\_\_ years
- ☐ district committees/offices
  - ☐ state practice group committees/offices
  - ☐ other state committees/offices
  - ☐ national practice group committees/offices
  - ☐ other national committees/offices
12. In the past two years, have you participated in any of the following dietetic related activities (over and above regular work responsibilities)?
- |   | no                       | once                     | more than once           |
|---|--------------------------|--------------------------|--------------------------|
| public presentation (e.g. weight loss, career guidance, etc.)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| dietetic related media presentations (e.g. radio, newspaper, TV)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| participant in a nutritional/dietetic capacity in community groups (e.g. Am. Heart Association, Red Cross, dietetic support groups, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| participant in a nutritional/dietetic capacity in citizen committees/groups (e.g. PACs, school boards, etc.)                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- Dietetic Education Evaluation
13. Please rank the following methods of achieving eligibility for registration based upon your perception of the quality of education offered by the method. One (1) represents the method you consider most desirable and four (4) the least. If you believe there is no difference between two or more methods, use the same number for them.
- ☐ Coordinated undergraduate program
  - ☐ Internship
  - ☐ Bachelor's degree with three year completed experience
  - ☐ Master's degree with six month experience
14. How would you rate KSU's coordinated undergraduate program relative to other CUPs?
- ☐ KSU program much better
  - ☐ KSU program better
  - ☐ No difference
  - ☐ Other CUP better
  - ☐ Other CUP much better
15. How acceptable do you consider the KSU coordinated undergraduate program as a method for gaining registration?
- ☐ Entirely acceptable
  - ☐ Generally acceptable
  - ☐ Occasionally questionable
  - ☐ Frequently questionable
  - ☐ Unacceptable

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18. On the following list of topics, please circle on Scale A the response which indicates the degree to which each has been relevant to your professional position(s); on Scale B, circle the response which best indicates how well you believe your undergraduate degree at KSU prepared you in this topic.

	Scale A <u>Relevance</u>	Scale B <u>Preparation</u>
	How important is this topic to your professional responsibilities?	How adequate was your preparation in this topic as a KSU undergraduate?
	(1) Essential (2) Important (3) Of minor importance (4) Unrelated to my job	(1) Totally adequate (2) Generally adequate (3) In between (4) Inadequate
TOPICS	Scale A Relevance 1 2 3 4	Scale B Preparation 1 2 3 4
1. Food production	1 2 3 4	1 2 3 4
2. Recipe standardization	1 2 3 4	1 2 3 4
3. Menu planning	1 2 3 4	1 2 3 4
4. Food science	1 2 3 4	1 2 3 4
5. Sanitation and health regulations	1 2 3 4	1 2 3 4
6. Purchasing/procurement	1 2 3 4	1 2 3 4
7. Equipment/layout	1 2 3 4	1 2 3 4
8. Budget planning	1 2 3 4	1 2 3 4
9. Cost control	1 2 3 4	1 2 3 4
10. Labor relations (unions)	1 2 3 4	1 2 3 4
11. Personnel management	1 2 3 4	1 2 3 4
12. Management theory	1 2 3 4	1 2 3 4
13. Computerization in foodservice management	1 2 3 4	1 2 3 4
14. Computerization in nutritional care	1 2 3 4	1 2 3 4
15. Normal nutrition	1 2 3 4	1 2 3 4
16. Nutrition through the life cycle	1 2 3 4	1 2 3 4
17. Physiology	1 2 3 4	1 2 3 4
18. Biochemistry/chemistry	1 2 3 4	1 2 3 4
19. Clinical nutrition	1 2 3 4	1 2 3 4
20. Interpretation of patient lab values	1 2 3 4	1 2 3 4
21. Documentation of clinical care	1 2 3 4	1 2 3 4
22. Nutritional assessment	1 2 3 4	1 2 3 4
23. Patient counseling	1 2 3 4	1 2 3 4
24. Parenteral/enteral nutrition	1 2 3 4	1 2 3 4
25. Community nutrition	1 2 3 4	1 2 3 4
26. Quality assurance/audit	1 2 3 4	1 2 3 4
27. Written/oral communication	1 2 3 4	1 2 3 4
28. Instructional techniques	1 2 3 4	1 2 3 4
29. Marketing dietetic services	1 2 3 4	1 2 3 4
30. Time management	1 2 3 4	1 2 3 4
31. Problem solving/decision making	1 2 3 4	1 2 3 4
Please write in and rate each topic which are/are not relevant to your position(s)		
32.	1 2 3 4	1 2 3 4
33.	1 2 3 4	1 2 3 4

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17. What new course work requirements or subject content would you recommend in light of current social trends (e.g., technological advances, health care issues, new directions in dietetic profession, or others)?

18. ADA's Task Force on Education recommended in the November/December 1982 "ADA Courier" that the concept of specialization be removed from undergraduate education with a course requirement in the liberal arts be increased to provide for a more broad based education at that level. Considering your own educational background and from what you've observed in your contacts with other professionals, please comment on the merit of this recommendation.

19. What are your professional plans for the future (e.g., change area of practice within field of dietetics, further develop professional skills within current area of practice, change to another field or other)?

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20. The ISU Dietetics faculty regularly seeks ways to improve the program which includes

- .retaining the strong features.
- .strengthening the weak features.
- .eliminating any unnecessary aspects, and
- .adding important courses/tools/experiences previously not included.

Given your experience to date, what advice can you give us? (What should we retain, improve, delete, add?)

Components of the curriculum	Strong features	Weak features
Clinical Dietetics		
Management Dietetics		
Other		

-6-

21. Employment Background

Please complete the following chart to provide a profile of your employment background. Include all positions held since graduation, including employment in areas other than electronics.

Start with your present or most recent paid position, go down the columns, and end with the first position after graduation. Each box represents one position. If you have held two part-time positions concurrently, or have been promoted to another position within the same organization, use a separate box for each individual position. Refer to the code sheet provided for responses where a code is required. An example is given below.

EXAMPLE

- I. a. Employment dates:  
From 7/76 to 8/78  
MO/YR MO/YR
- b. X Full time        Part time
- c.        Position title  
(see Code C)
- d. 17 Type of facility  
(see Code D)
- e.        Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
       No X Yes
- g.        If yes, indicate reason  
(see Code G)

Interpretation of Example:

The box at the left represents a full time position as an Administrative Staff Position (C 7) in a College/University Foodservice (D 17). The primary reason for leaving this position was to accept a better paying job (E 2). There was a period of unemployment between positions as the job of interest was not immediately available (G 5).

START HERE with most current position:

- I. a. Employment dates:  
From        to         
MO/YR MO/YR
- b.        Full time        Part time
- c.        Position title  
(see Code C)
- d.        Type of facility  
(see Code D)
- e.        Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
       No        Yes
- g.        If yes, indicate reason  
(see Code G)

- II. a. Employment dates:  
From        to         
MO/YR MO/YR
- b.        Full time        Part time
- c.        Position title  
(see Code C)
- d.        Type of facility  
(see Code D)
- e.        Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
       No        Yes
- g.        If yes, indicate reason  
(see Code G)

- III. a. Employment dates:  
From        to         
MO/YR MO/YR
- b.        Full time        Part time
- c.        Position title  
(see Code C)
- d.        Type of facility  
(see Code D)
- e.        Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
       No        Yes
- g.        If yes, indicate reason  
(see Code G)

- IV. a. Employment dates:  
From        to         
MO/YR MO/YR
- b.        Full time        Part time
- c.        Position title  
(see Code C)
- d.        Type of facility  
(see Code D)
- e.        Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
       No        Yes
- g.        If yes, indicate reason  
(see Code G)

CONTINUE ON TOP OF NEXT COLUMN

NEED MORE SPACE? GO TO TOP LEFT  
COLUMN ON NEXT PAGE.

## 21. Employment Background (continued)

CONTINUE HERE.

## VI. a. Employment dates:

From MM/YY to MM/YY

- b.      Full time      Part time
- c.      Position title  
(see Code C)
- d.      Type of facility  
(see Code D)
- e.      Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
     No      Yes
- g.      If yes, indicate reason  
(see Code G)

## VII. a. Employment dates:

From MM/YY to MM/YY

- b.      Full time      Part time
- c.      Position title  
(see Code C)
- d.      Type of facility  
(see Code D)
- e.      Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
     No      Yes
- g.      If yes, indicate reason  
(see Code G)

## VIII. a. Employment dates:

From MM/YY to MM/YY

- b.      Full time      Part time
- c.      Position title  
(see Code C)
- d.      Type of facility  
(see Code D)
- e.      Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
     No      Yes
- g.      If yes, indicate reason  
(see Code G)

CONTINUE ON TOP OF NEXT COLUMN

## VIIA. Employment dates:

From MM/YY to MM/YY

- b.      Full time      Part time
- c.      Position title  
(see Code C)
- d.      Type of facility  
(see Code D)
- e.      Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
     No      Yes
- g.      If yes, indicate reason  
(see Code G)

## IX. a. Employment dates:

From MM/YY to MM/YY

- b.      Full time      Part time
- c.      Position title  
(see Code C)
- d.      Type of facility  
(see Code D)
- e.      Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
     No      Yes
- g.      If yes, indicate reason  
(see Code G)

## I. a. Employment dates:

From MM/YY to MM/YY

- b.      Full time      Part time
- c.      Position title  
(see Code C)
- d.      Type of facility  
(see Code D)
- e.      Primary reason for leaving  
(see Code E)
- f. Unemployed before this position?  
     No      Yes
- g.      If yes, indicate reason  
(see Code G)

NEED MORE SPACES?  
GO TO BACK OF CODE SHEET.



## CODE SHEET FOR EMPLOYMENT BACKGROUND RESPONSES

This is the code sheet for answering items c, e, g, and g regarding your employment background. Fill in each blank with the appropriate code number, and, where requested, appropriate written response.

## Code C

## Position title

- (1) Director (0-1 dietitians under supervision)
- (2) Director (2-3 dietitians under supervision)
- (3) Director (4 or more dietitians under supervision)
- (4) Associate/Assistant Director (0-1 dietitians under supervision)
- (5) Associate/Assistant Director (2-3 dietitians under supervision)
- (6) Associate/Assistant Director (4 or more dietitians under supervision)
- (7) Administrative Staff Dietitian
- (8) Head Clinical Dietitian
- (9) Clinical Staff Dietitian
- (10) Generalist Dietitian (administrative, clinical, and/or teaching responsibilities)
- (11) Community Dietitian (e.g., WIC, public health, etc.)
- (12) Private Practice-Nutrition Consultant
- (13) Private Practice-Foodservice Manager
- (14) Private Practice-Facility Consultant
- (15) Health Care Facility Consultant
- (16) Research Dietitian
- (17) Teaching Dietitian
- (18) College/University Faculty
- (19) Clinical Instructor-CLIP
- (20) Other dietetic position, please specify
- (21) Non-dietetic position, please specify

## Code E

## Reason for leaving (Indicate one primary reason)

- (1) Not applicable; currently employed in this position
- (2) To accept a better paying job
- (3) To accept a job with better hours
- (4) Wanted to get a different experience
- (5) Wanted a more challenging job
- (6) Didn't like the work
- (7) To go back to school
- (8) To raise a family
- (9) To care for family members
- (10) Spouse transferred to another city
- (11) Wanted to move to another city
- (12) Position was temporary
- (13) Promotion within the facility
- (14) Other, please specify

## Code G

## Reason for unemployment between positions (Indicate one primary reason)

- (1) Retiring a facility
- (2) Extending school
- (3) Chose not to work for awhile
- (4) No job available
- (5) Job of interest to me not available
- (6) Other, please specify

## Code D

## Type of facility

- (1) University Medical Center
- (2) Hospital (500 or more beds)
- (3) Hospital (300-499 beds)
- (4) Hospital (200-299 beds)
- (5) Hospital (100-199 beds)
- (6) Hospital (under 100 beds)
- (7) Outpatient Clinic
- (8) Physician's Office
- (9) Health Maintenance Organization (HMO)
- (10) Nursing Home (200 or more residents)
- (11) Nursing Home (100-199 residents)
- (12) Nursing Home (under 100 residents)
- (13) Senior Health Care Facility
- (14) Public or Voluntary Agency (e.g., Home Health Care)
- (15) Government Agency (e.g., WIC, Public Health)
- (16) School Foodservice
- (17) College/University Foodservice
- (18) College/University Academic Unit
- (19) Vocational/Technical School
- (20) Commercial/Industrial Foodservice
- (21) Business
- (22) Private Office, self-employed
- (23) Other, please specify

II. Employment Background (continued)

CONTINUE HERE:

XI. a. Employment dates:  
From      mo/yr to      mo/yr  
b.      Full time      Part time  
c.      Position title  
(see Code C)  
d.      Type of facility  
(see Code D)  
e.      Primary reason for leaving  
(see Code E)  
f. Unemployed before this position?  
     No      Yes  
g.      If yes, indicate reason  
(see Code G)

XII. a. Employment dates:  
From      mo/yr to      mo/yr  
b.      Full time      Part time  
c.      Position title  
(see Code C)  
d.      Type of facility  
(see Code D)  
e.      Primary reason for leaving  
(see Code E)  
f. Unemployed before this position?  
     No      Yes  
g.      If yes, indicate reason  
(see Code G)

XIII. a. Employment dates:  
From      mo/yr to      mo/yr  
b.      Full time      Part time  
c.      Position title  
(see Code C)  
d.      Type of facility  
(see Code D)  
e.      Primary reason for leaving  
(see Code E)  
f. Unemployed before this position?  
     No      Yes  
g.      If yes, indicate reason  
(see Code G)

XIV. a. Employment dates:  
From      mo/yr to      mo/yr  
b.      Full time      Part time  
c.      Position title  
(see Code C)  
d.      Type of facility  
(see Code D)  
e.      Primary reason for leaving  
(see Code E)  
f. Unemployed before this position?  
     No      Yes  
g.      If yes, indicate reason  
(see Code G)

XV. a. Employment dates:  
From      mo/yr to      mo/yr  
b.      Full time      Part time  
c.      Position title  
(see Code C)  
d.      Type of facility  
(see Code D)  
e.      Primary reason for leaving  
(see Code E)  
f. Unemployed before this position?  
     No      Yes  
g.      If yes, indicate reason  
(see Code G)

XVI. a. Employment dates:  
From      mo/yr to      mo/yr  
b.      Full time      Part time  
c.      Position title  
(see Code C)  
d.      Type of facility  
(see Code D)  
e.      Primary reason for leaving  
(see Code E)  
f. Unemployed before this position?  
     No      Yes  
g.      If yes, indicate reason  
(see Code G)

CONTINUE ON TOP OF NEXT COLUMN

ADDRESS INFORMATION

DATE \_\_\_\_\_

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

BUSINESS ADDRESS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ AC \_\_\_\_\_

HOME ADDRESS \_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ AC \_\_\_\_\_

APPENDIX B

Coding Information for 1971-1974 Graduates

1971-1974 Graduates  
Coding Information  
Card 1

Card  
Column

- 1-3 Identification number
- 4 Year of graduation  
     1 = 1971  
     2 = 1972  
     3 = 1973  
     4 = 1974  
     5 = other, please specify
- 5 Year of post graduation employment  
     1 = 1971  
     2 = 1972  
     3 = 1973  
     4 = 1974  
     5 = 1975  
     6 = other, please specify  
     7 = have not been employed professionally since graduation
- 6 Salary for first position  
     1 = less than \$6,000  
     2 = \$6,000 to 7,999  
     3 = \$8,000 to 9,999  
     4 = \$10,000 to 11,999  
     5 = \$12,000 to 13,999  
     6 = greater than \$14,000
- 7-8 Part time positions (tenths of time worked)
- 9-10 Salary for current position  
     01 = less than \$16,000  
     02 = \$16,000 to 17,999  
     03 = \$18,000 to 19,999  
     04 = \$20,000 to 21,999  
     05 = \$22,000 to 23,999  
     06 = \$24,000 to 25,999  
     07 = \$26,000 to 27,999  
     08 = \$28,000 to 29,999  
     09 = \$30,000 to 31,999  
     10 = \$32,000 to 33,999  
     11 = greater than \$34,000  
     12 = not currently employed
- 11-12 Part time positions (tenths of time worked)
- 13-14 Highest annual salary if different than current (same code as columns 9-10)
- 15 Master's degree completed
- 16 Doctoral degree completed
- 17 Subject area for completed Master's degree (see code on page one of instrument)
- 18 Subject area for completed doctoral degree (see code on page one of instrument)

Card 1  
(continued)

Card  
Column

- 19 Highest degree expected  
1 = Bachelor's degree  
2 = Master's degree  
3 = Doctoral
- 20 Subject area for planned Master's degree (see code on page one of instrument)
- 21 Subject area for planned doctoral degree (see code on page one of instrument)
- 22 Have you taken any graduate courses during 1983 or 1984?  
1 = yes  
2 = no
- 23-33 Memberships in professional organizations (refer to page one of instrument for listing of organizations)  
1 = yes, a member  
2 = no, not a member
- 34 Year of becoming an ADA member  
1 = have not become a member  
2 = immediately upon graduation  
3 = 1-2 years post graduation  
4 = 3-4 years post graduation  
5 = 5-6 years post graduation  
6 = 7-8 years post graduation  
7 = 9 or more years post graduation
- 35 ADA membership maintained continuously?  
1 = have never been a member  
2 = yes  
3 = no
- 36 Are you now a member?  
1 = yes  
2 = no
- 37 Number of years membership has lapsed  
1 = 0-1 year  
2 = 3-4 years  
3 = 5-6 years  
4 = 7-8 years  
5 = 9 or more years
- 38 Main reason for discontinuing membership  
1 = change of profession  
2 = high cost  
3 = inactive in profession due to family commitment  
4 = dissatisfied with ADA services  
5 = other, please specify
- 39 When did you become a Registered Dietitian?  
1 = have never been registered  
2 = 0-1 year post graduation  
3 = 2-3 years post graduation  
4 = 4 or more years post graduation

Card 1  
(continued)

Card  
Column

- 40 Registration maintained continuously?  
1 = have never been registered  
2 = yes  
3 = no
- 41 Number of state dietetic meetings attended in the past 3 years
- 42 Number of national dietetic meetings attended in the past 3 years
- 43 Frequency of regional or district dietetic association meeting attendance in past year  
1 = nearly all  
2 = more than half  
3 = about half  
4 = less than half  
5 = none, or only once
- 44 Number of ADA practice group memberships
- 45-46 Number of years in district committees/offices
- 47-48 Number of years in state practice group committees/offices
- 49-50 Number of years in other state committees/offices
- 51-52 Number of years in national practice group committees/offices
- 53-54 Number of years in other state committees/offices
- 55 Public presentation given during past two years  
1 = no  
2 = once  
3 = more than once
- 56 Dietetic related media presentation during past two years  
(same code as column 55)
- 57 Participant in community groups during past two years  
(same code as column 55)
- 58 Participant in citizen committees/groups  
(same code as column 55)
- 59 Coordinated undergraduate program (Ranked by 1 = most desirable means to achieve eligibility for registration, 4 = least desirable method)
- 60 Internship (same code as column 59)
- 61 Bachelor's degree with three year preplanned experience  
(same code as column 59)
- 62 Master's degree with six month experience (same code as column 59)
- 63 KSU's coordinated undergraduate program relative to other CUPs  
1 = KSU program much better  
2 = KSU program better  
3 = no difference  
4 = other CUP better  
5 = other CUP much better

Card 1  
(continued)

Card  
Column

- 64 KSU's coordinated undergraduate program as a method for gaining registration  
     1 = entirely acceptable  
     2 = generally acceptable  
     3 = occasionally questionable  
     4 = frequently questionable  
     5 = unacceptable
- 80 1 = Card number one

Card 2

Card  
Column

- 1-3 Identification number
- 4-36 Subject areas/topics (see code on Scale A, page 3 of instrument)
- 37-69 Subject areas/topics (see code on Scale B, page 3 of instrument)
- 70 Agreement or disagreement with the ADA Task Force on Education recommendation to provide a more broad based education at the undergraduate level  
     1 = agree with recommendation  
     2 = disagree with recommendation, do not believe liberal arts should be increased in dietetic curriculum
- 80 2 = Card number two

Card 3

Card  
Column

- 1-3 Identification number
- 4-6 Months in most recent position
- 7 Full or part time position  
     1 = full time  
     2 = part time
- 8-9 Position code (see code sheet for employment background responses with instrument, Code C)
- 10-11 Facility type (see code sheet for employment background responses with instrument, Code D)
- 12-13 Primary reason for leaving (see code sheet for employment responses with instrument, Code E)
- 14 Unemployed before this position?  
     1 = no  
     2 = yes



Card 3  
(continued)

Card  
Column

- 15 Reason for unemployment (see code sheet for employment background responses with instrument, Code G)
- 16-27 Next most recent position, responses coded same as columns 4-15
- 28-39 Next most recent position, responses coded same as columns 4-15
- 40-51 Next most recent position, responses coded same as columns 4-15
- 52-63 Next most recent position, responses coded same as columns 4-15
- 64-75 First position following graduation, responses coded same as columns 4-15
- 76 A period of unemployment of 2 or more years, 1 = yes
- 80 3 = Card number three

APPENDIX C

Final Instrument for 1976-1982 Graduates

SURVEY OF RECENT GRADUATES  
DEPARTMENT OF DIETETICS, RESTAURANT AND INSTITUTIONAL MANAGEMENT  
KANSAS STATE UNIVERSITY

## I. Identifying Information:

A. Name \_\_\_\_\_

B. Are you currently employed?

\_\_\_\_\_ Yes (Position Title \_\_\_\_\_)

Full time \_\_\_\_\_ OR Part time \_\_\_\_\_

Is this your first position since graduation?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, your first position \_\_\_\_\_

The following information regarding entry level salary would be helpful to us, but if you prefer to omit this section, feel free to do so.

Beginning salary range:

\_\_\_\_\_ Less than 13,999

\_\_\_\_\_ 14,000 to 14,999

\_\_\_\_\_ 15,000 to 15,999

\_\_\_\_\_ 16,000 to 16,999

\_\_\_\_\_ 17,000 to 17,999

\_\_\_\_\_ 18,000 to 18,999

\_\_\_\_\_ 19,000 to 19,999

\_\_\_\_\_ More than 20,000

\_\_\_\_\_ No, and I'm not actively seeking employment  
because \_\_\_\_\_

\_\_\_\_\_ No, but I am seeking employment. My major difficulties in  
finding satisfactory employment have been \_\_\_\_\_

II. Answer this question only if you have enrolled in graduate school since you completed your undergraduate degree.

1. At what institution was your graduate work taken?

\_\_\_\_\_

2. What is the highest degree you (a) have obtained? \_\_\_\_\_

(b) expect to obtain? \_\_\_\_\_

(over)

3. In terms of providing a substantive background for graduate work, was your KSU program: ☐ unsatisfactory ☐ marginal  
☐ adequate ☐ more than satisfactory ☐ excellent?
- III. Answer this question only if you are not currently employed in dietetics/institutional management, (i.e., if you are in graduate school, currently unemployed, or employed in some field other than dietetics/institutional management).
- A. From your perspective, what were the greatest strengths of the undergraduate program at KSU (i.e., specific aspects of the program you would not want us to change)? \_\_\_\_\_

\_\_\_\_\_

- B. What were the weaknesses which you would like to see overcome?

\_\_\_\_\_

\_\_\_\_\_

The remaining questions are intended for those who are employed in dietetics/institutional management. If you are not so employed, you may omit the rest of the questions. Thank you for your cooperation. Please return your completed questionnaire in the self-addressed, stamped envelope.

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- IV. Listed below are a number of activities which are sometimes included as part of a dietitian's work. In Column 1, indicate how important each of these are in your job. In Column 2, indicate how adequately you feel the educational program at KSU prepared you for each. Use the following codes in making your ratings:

COLUMN 1 - IMPORTANCE CODES

- 1 = Of no importance  
2 = Of minor importance  
  
3 = Fairly important  
4 = Important  
  
5 = Essential

COLUMN 2 - EDUC. PROGRAM CODES

- 1 = A definite weakness  
2 = More a weakness than a strength  
3 = Inbetween  
4 = More a strength than a weakness  
5 = A definite strength

	<u>COLUMN 1</u> <u>IMPORTANCE</u>	<u>COLUMN 2</u> <u>PROGRAM</u>
1. Prepares nutritional care plans based on individual needs during the life cycle, recognizing that food habits and attitudes are resistant to change .....	_____	_____
2. Applies knowledge of physiology, biochemistry, and nutrition in planning diets .....	_____	_____
3. Communicates nutritional care data through written record .....	_____	_____
4. Accepts responsibility for client's nutritional care .....	_____	_____
5. Participates in health team rounds and conferences by serving as the consultant on nutritional care .....	_____	_____
6. Performs personnel management responsibilities of recruiting, interviewing, hiring, orienting, appraising, terminating. (Underline which are currently performed.) .....	_____	_____
7. Plans nutritious, acceptable menus .....	_____	_____
8. Uses available resources (materials, personnel, facilities, time, and money) effectively to provide services .....	_____	_____
9. Uses established policies and procedures related to food purchasing, food production and service, and foodservice equipment purchasing .....	_____	_____
10. Participates effectively as a management team member or leader .....	_____	_____
11. Functions within the goals of the foodservice and the organization .....	_____	_____
12. Maintains effective communications with clients, personnel, colleagues, related professionals and the community .....	_____	_____
13. Uses appropriate methods and materials for educating others .....	_____	_____
14. Prepares reports in an acceptable format .....	_____	_____
15. Delegates functions (e.g. daily production planning, tallying of menus) to appropriate personnel .....	_____	_____

	<u>COLUMN 1</u> <u>IMPORTANCE</u>	<u>COLUMN 2</u> <u>PROGRAM</u>
16. Functions within the financial constraints of the organization .....	_____	_____
17. Makes decisions based on adequate information ..	_____	_____
18. Assists others in the process of change .....	_____	_____
19. Demonstrates continuing professional development by applying new concepts that are appropriate to the situation .....	_____	_____

V. In reviewing the ratings given above, pay special attention to those which you rated as "4" or "5" in Column 1 and "1", "2", or "3" in Column 2.

- a. If you believe the educational program at KSU is not an effective way to become proficient in any of these activities (i.e., if proficiency depends mostly on experience or on innate characteristics not affected by education), list the number (1-17) of such activities below.

(Numbers) \_\_\_\_\_

- b. For the remainder, please make specific suggestions as to how the KSU program could be made more effective (Use back side if you need more space).

ACTIVITY NUMBER

SUGGESTIONS

\_\_\_\_\_ \* \* \* \* \*

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ \* \* \* \* \*

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ \* \* \* \* \*

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ \* \* \* \* \*

\_\_\_\_\_  
\_\_\_\_\_

VI. Describe any special aspects of the KSU program (courses, requirements, experiences) which have been especially valuable to you in your present position.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- VII. Since graduating from KSU, have you tried to "keep up to date" professionally? ☐ Yes ☐ No. If yes, how? (Be as specific as possible; name the journals you read regularly, any books or pamphlets you have read, and workshops or conferences you have attended, etc.).

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- VIII. What professional plans do you have for the future?

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Thank you for your cooperation. Please return completed questionnaire to:

DEPARTMENT OF DIETETICS, RESTAURANT AND INSTITUTIONAL MANAGEMENT  
JUSTIN HALL  
KANSAS STATE UNIVERSITY  
MANHATTAN, KANSAS 66506

SUPERVISOR'S RATING FORM  
DEPARTMENT OF DIETETICS, RESTAURANT AND INSTITUTIONAL MANAGEMENT  
KANSAS STATE UNIVERSITY

To the Supervisor:

The faculty and administration of Kansas State University are determined to develop the strongest possible program to prepare students to enter the profession of dietetics. To this end, the observations and suggestions of those who supervise our graduates are vital. Your candid responses to the questions listed on the following pages will serve our mutual interests; we will sincerely appreciate your help. Summary results for the entire group will be made available to educators, professional dietitians and other employers. Please indicate if you would like this information.

---

Faith Roach, Ph.D., R.D.  
Director, Coordinated Undergraduate  
Program in Dietetics

I approve of my supervisor providing confidential ratings of my performance for the purpose stated above, and I ☐ waive ☐ do not waive (check one) my rights to review these ratings.

---

Signature of individual to be rated



1. The list below describes functions which dietitians sometimes perform. Use Column 1 to indicate how important each is for the individual you are rating. In Column 2, rate how effectively the individual performs each task. To make your ratings, use the code numbers listed below:

COLUMN 1 - IMPORTANCE CODES

- 1 = Of no importance  
2 = Of minor importance  
3 = Fairly important  
4 = Important  
5 = Essential

COLUMN 2 - EFFECTIVENESS CODES

- 1 = Unsatisfactory  
2 = Definitely needs to improve  
3 = Acceptable  
4 = Performs effectively  
5 = Outstanding performance

	<u>COLUMN 1</u> <u>IMPORTANCE</u>	<u>COLUMN 2</u> <u>PROGRAM</u>
1. Prepares nutritional care plans based on individual needs during the life cycle, recognizing that food habits and attitudes are resistant to change .....	_____	_____
2. Applies knowledge of physiology, biochemistry, and nutrition in planning diets .....	_____	_____
3. Communicates nutritional care data through written record .....	_____	_____
4. Accepts responsibility for client's nutritional care .....	_____	_____
5. Participates in health team rounds and conferences by serving as the consultant on nutritional care .....	_____	_____
6. Performs personnel management responsibilities of recruiting, interviewing, hiring, orienting, appraising, terminating. (Underline which are currently performed.) .....	_____	_____
7. Plans nutritious, acceptable menus .....	_____	_____
8. Uses available resources (materials, personnel, facilities, time, and money) effectively to provide services .....	_____	_____
9. Uses established policies and procedures related to food purchasing, food production and service, and foodservice equipment purchasing .....	_____	_____
10. Participates effectively as a management team member or leader .....	_____	_____
11. Functions within the goals of the foodservice and the organization .....	_____	_____
12. Maintains effective communications with clients, personnel, colleagues, related professionals and the community .....	_____	_____
13. Uses appropriate methods and materials for educating others .....	_____	_____
14. Prepares reports in an acceptable format .....	_____	_____
15. Delegates functions (e.g. daily production planning, tallying of menus) to appropriate personnel .....	_____	_____

(over)

	COLUMN 1 <u>IMPORTANCE</u>	COLUMN 2 <u>PROGRAM</u>
16. Functions within the financial constraints of the organization .....	_____	_____
17. Makes decisions based on adequate information ..	_____	_____
18. Assists others in the process of change .....	_____	_____
19. Demonstrates continuing professional development by applying new concepts that are appropriate to the situation .....	_____	_____
II. Compare this individual with other graduate dietitians you have supervised and who were similar in age, experience and responsibilities. Use the following key:		
1 = The individual is inferior	4 = The individual is above average	
2 = The individual is below average	5 = The individual is superior	
3 = The individual is average		
		<u>RATING</u>
a. Professional knowledge and skill .		_____
b. Interpersonal relationships with staff and colleagues .....		_____
c. Ability to work effectively within the systems established by the institution .....		_____
d. Overall desirability as an employee .....		_____
III. Our major concern is in improving our professional preparation program for dietitians. We would welcome your observations on any weaknesses in preparation you have noted in the individual being rated. If you have specific suggestions for correcting these weaknesses, please note these also. Likewise, feel free to note any aspects of the program which you feel have been so effective that they should definitely be retained.		
_____		
_____		
_____		
_____		
_____		
IV. How would you classify the position of the individual being rated?		
_____ Clinical _____ Administrative _____ Both Clinical and Administrative		
_____ Other (Specify) _____		

THANK YOU. PLEASE RETURN COMPLETED FORM TO:

DEPARTMENT OF DIETETICS, RESTAURANT AND INSTITUTIONAL MANAGEMENT  
JUSTIN HALL  
KANSAS STATE UNIVERSITY  
MANHATTAN, KANSAS 66506

APPENDIX D

Coding Information for 1976-1982 Graduates

1976-1982 Graduates  
Coding Information  
Card 1, Graduate's Response

Card  
Column

- 1-20 Graduate's name
- 21 Currently employed  
1 = yes  
2 = no
- 23 Full or part time  
1 = full time  
2 = part time
- 24 Currently employed in first position following graduation  
1 = yes  
2 = no
- 25 Type of position  
1 = clinical  
2 = administrative  
3 = generalist  
4 = community  
5 = consultant  
6 = other
- 26 Salary ranges  
2 = \$13,999-20,000 1982 graduates  
3 = \$11,199-17,000 1981 graduates  
4 = \$ 9,999-15,000 1980, 1979, and 1978 graduates  
5 = \$ 7,900-13,000 1977 graduates  
6 = \$ 7,900-12,000 1976 graduates
- 27 Salary code (\$1,000 difference per each step in salaries, coded starting with lowest range = 1, next highest range = 2, and so forth)
- 28 Started a graduate program  
1 = yes  
2 = no
- 29 Highest degree expected by those who have started a graduate program  
1 = Master's degree  
2 = doctoral degree
- 30 KSU's coordinated undergraduate program, adequacy of preparation for a graduate program  
1 = unsatisfactory  
2 = marginal  
3 = adequate  
4 = more than satisfactory  
5 = excellent
- 31-49 Job function importance (see instrument page 3 for functions and codes)
- 50-68 Job function preparation (see instrument page 3 for functions and codes)

Card 1  
(continued)

Card  
Column

- 69 Responses received  
     1 = graduate response only  
     2 = supervisor response only  
     3 = both graduate and supervisor responses
- 70 Semester of graduation  
     1 = May  
     2 = December  
     3 = summer
- 71-72 Year of graduation (last two numbers of year recorded)
- 80 1 = Card number one, graduate's response

Card 2, Supervisor's Response

Card  
Column

- 1-20 Graduate's name
- 31-49 Job function importance (see instrument page 2 for functions and codes)
- 50-68 Job function performance (see instrument page 2 for functions and codes)
- 69-72 Graduate overall abilities and performance (see instrument page 3 for criteria and codes)
- 73 Type of position  
     1 = clinical  
     2 = administrative  
     3 = generalist  
     4 = community  
     5 = consultant  
     6 = other
- 74 Graduate:  
     1 = waived right to see supervisor's response  
     2 = did not waive right to see supervisor's response
- 80 2 = Card number two, supervisor's response

APPENDIX E  
Supplemental Table

Table 23. Salary ranges for 1976-1981 graduates

salary ranges	graduates	
	N	%
1981 graduates		
less than \$11,999	1	8.3
\$12,000-12,999	0	0.0
\$13,000-13,999	1	0.3
\$14,000-14,999	4	33.3
\$15,000-15,999	1	8.3
\$16,000-16,999	2	16.7
more than \$17,000	3	25.0
total	12	99.9
1978-1980 graduates		
less than \$9,999	3	4.5
\$10,000-10,999	6	9.0
\$11,000-11,999	8	11.9
\$12,000-12,999	20	29.9
\$13,000-13,999	16	23.9
\$14,000-14,999	6	9.0
more than \$15,000	8	11.9
total	67	100.1
1977 graduates		
less than \$7,999	0	0.0
\$8,000-8,999	0	0.0
\$9,000-9,999	2	6.1
\$10,000-10,999	15	45.5
\$11,000-11,999	7	21.2
\$12,000-12,999	7	21.2
more than \$13,000	2	6.1
total	33	100.1
1976 graduates		
less than \$7,999	2	11.8
\$8,000-8,999	0	0.0
\$9,000-9,999	3	17.6
\$10,000-10,999	7	41.2
\$11,000-11,999	5	29.4
more than \$12,000	0	0.0
total	17	100.0

EVALUATION OF THE COORDINATED UNDERGRADUATE PROGRAM  
IN DIETETICS AT KANSAS STATE UNIVERSITY

by

BARBARA M. EINSPAHR SCHEULE

B.S., University of Nebraska, 1980

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AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Dietetics, Restaurant,  
and Institutional Management

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1985



## ABSTRACT

The purpose of this two part study was to evaluate the Kansas State University undergraduate program in dietetics. An instrument designed to collect data on graduates' educational achievements and aspirations, professional involvement, and employment history was sent to the 1971-1974 graduates during July of 1984. Sixty (84.5%) of the graduates responded. The second part of the research project was a continuation of work previously undertaken and reported by Roach et al. (1). Graduates received two questionnaires, one to be completed personally, and one to be completed by their immediate supervisors, from six months to one year following graduation. One hundred and seventy-three (85.6%) of the 1976-1982 graduates responded. A total of 133 supervisors returned the survey.

Twenty-five (41.7%) of the 1971-1974 graduates have completed a Master's degree and two have received doctoral degrees. More than half of the graduates (55.1%) have or anticipate completing a degree beyond their Bachelor's degree. Seventy-two percent of the graduates were employed as of summer 1984. Family responsibilities was the primary reason given for 28.3% of the graduates being unemployed. Most graduates (64.6%) chose clinical dietetics for their first position, while management practice was the area selected by the highest number of graduates (33.3%) for their most recent position.

Nine (5.2%) of the 1976-1982 graduates had started graduate school within the first 12 months following graduation from KSU. Of these, six anticipated earning a Master's degree and two expected to complete a doctoral degree. Eighty-three percent of the graduates reported being

currently employed in full time positions. Fifteen (9.0%) indicated they were employed part time. Most graduates (41.0%) were employed in clinical positions.

Evaluations of the KSU dietetic program by the 1971-1974 graduates ten or more years later, and the 1976-1982 graduates six months to one year following graduation were positive. The 1971-1974 graduates were critical of their preparation for "computerization in nutritional care," "parenteral/enteral nutrition," "quality assurance/audits," "computerization in foodservice management," and "marketing dietetic services." Subjects rated somewhat unfavorably were "budget planning," "labor relations/unions," and "cost control." These graduates were most favorable towards their preparation for "menu planning" and "recipe standardization."

The 1976-1982 graduates were somewhat critical of their preparation for "applies basic sciences to diet plans," "prepares acceptable reports," "delegates functions appropriately," "performs personnel management," "functions within financial constraints" and "assists others to change." These graduates had rated all other of the 19 job functions favorably. Supervisors of the 1976-1982 graduates indicated they were pleased with the ability and performance of the graduates they had hired. A comparison of this study with the previous study (1) indicated the 1976-1982 graduates and their supervisors were more favorable toward their educational preparation in most areas than the earlier graduates and their supervisors.