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ABSTRACT

This working paper was prepared to provide the framework for discussions and recommendations at a conference to examine a research study on the doctorate in education and propose improvements in doctoral programs. (SP 004 602 is the conference report.) The paper summarizes the data of a 1960 research study ("An Inquiry into Conditions Affecting the Pursuit of the Doctoral Degree in the Field of Education," SP 004 600 and SP 004 601) and proposes implications with suggestions for discussion. Findings and suggestions are presented under six subtopics: 1) general characteristics of the institutions (92 known to award doctorates in education, 1956-1958) and of the individuals (3,379 who had received doctoral degrees during that 2-year period); 2) the recruitment of candidates; 3) admission practices; 4) requirements in instructional programs; 5) a look to the future. Included also are recommendations for further study and a 14-item bibliography. (SP 004 603 and ED 010 188 are also related documents.) (JS)

THE DOCTORATE IN EDUCATION

An Inquiry into Conditions Affecting the
Pursuit of the Doctoral Degree
in the Field of Education

CONFERENCE WORKING PAPER

Conference, May 2, 3, and 4, 1960

Edgewater Beach Hotel
Chicago, Illinois

THE AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION

The American Association of Colleges for Teacher Education

The American Association of Colleges for Teacher Education, an autonomous department of the National Education Association, is a national voluntary association of colleges and universities organized to improve the quality of institutional programs of teacher education. All types of four-year institutions for higher education are represented in the present membership. These include private and church-related liberal arts colleges, state teachers colleges, state colleges, state universities, private and church-related universities, and municipal universities. The teacher-education programs offered by the member institutions are varied. Only one uniform theme dominates the AACTE--the dedication to ever-improving quality in the education of teachers.

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PREFACE

Early in 1958, the Committee on Studies of The American Association of Colleges for Teacher Education approved a plan calling for an analysis of conditions and factors affecting the pursuit of doctoral programs in Education. Subsequently referred to the Association's Subcommittee on Faculty Personnel for Teacher Education, the study was entitled An Inquiry into Conditions Affecting the Pursuit of the Doctoral Degree in the Field of Education. Two aspects of the survey were a questionnaire sent to the 92 known institutions which awarded a doctor's degree in Education and a similar questionnaire sent to all those persons who had received such a degree during the period 1956-58.

The study is now complete, and the results are available for analysis. In order to give the widest possible publicity to the findings and to make the results and implications of the study available to all, the following steps have been taken or are planned:

1. The AACTE has published THE DOCTORATE IN EDUCATION in two related volumes: Volume I--The Graduates and Volume II--The Institutions.

2. A "Work Conference," composed of representatives of institutions now offering doctorates in Education, of those institutions intending to offer such degrees in the near future, and of other interested organizations, is to be held May 2, 3, and 4, 1960. The Conference will concern itself with examining the data and proposing improvement in doctoral programs.

3. In preparation for the Conference, this Working Paper, summarizing the data, drawing inferences from the material, and proposing logically derived implications, is being circulated among all invited participants and will provide the framework for discussions and recommendations.

4. Proceedings of the Conference, together with any conclusions generally agreed upon, recommendations, and programs of suggested action, will be published following the Conference.

The content of the Working Paper, culled from the voluminous data of the two original surveys, has been submitted to and has received the approval of the Subcommittee on Faculty Personnel for Teacher Education.

The Conference and this Working Paper were made possible in part by funds granted by Carnegie Corporation of New York. The statements made and the views expressed are solely the responsibility of the authors.

(Continued)

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DeKalb, Illinois
April 1960

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I. GENERAL CHARACTERISTICS OF THE INSTITUTIONS AND INDIVIDUALS

The Inquiry was composed of two related phases, both conducted in 1958 and 1959. One of them was conducted by a research team from the University of Denver which sent a questionnaire to each of 92 institutions awarding doctorates in Education, asking them to report on their practices in preparing individuals for the two degrees--Doctor of Education and Doctor of Philosophy in Education. The other, conducted by a research team from the University of Illinois, surveyed the 3375 individuals who had received these degrees during the period 1956-58, asking them to report on their experiences and reactions as they attempted to complete their doctoral requirements. The following is a "thumbnail sketch" of the institutions and the people who make up the samples, together with some implications drawn from the data.

This report is necessarily "sketchy" and covers inadequately all of the relevant data. In order to compensate partially for this deficiency, reference is frequently made to the data in the original studies as these are recorded in the numbered tables. Throughout this report, material abstracted from the survey of the graduates (Illinois Study) will be referred to as Volume I; material abstracted from the survey of institutional practices (Denver Study) will be referred to as Volume II.

Characteristics of the Institutional Sample

Of the 92 institutions known to award doctorates in Education during the 1956-58 period, 81 of them returned completed questionnaires, constituting 88% of the total (Vol. II). Ninety percent of the institutions were either state or private universities, with 60% of the sample being composed of state universities, and 40% privately controlled (Vol. II, Table 3). Of the total 92 institutions, 17 awarded only the Doctor of Philosophy in Education degree, 27 awarded only the Doctor of Education degree, and 48 awarded both degrees (Vol. II, Table 2).

Considerable difference in the method of administrative control of the two degrees was reported. Eighty-two percent of the institutions which granted the Ph.D. in Education stated that the administrative responsibility rested with the Graduate School, whereas only 58% reported such control for the Ed.D. (Vol. II, Table 5). Nearly a third (32%) of the latter institutions tended to centralize control of the Ed.D. in the College of Education. However, since the universities which gave autonomy to the College of Education tended to be the larger ones, over 50% of all those who received the Ed.D. were under the control of that college.

As might be expected, the size of the faculty in Education is related to the size of the institutions which award doctorates. Since only the larger universities tend to award advanced degrees, the staff in Education is proportionately large. The median number of full-time faculty in Education is 35, which is augmented by an additional part-time staff of 10 (Vol. II, Tables 7 and 8). (Medians rather than means are used throughout this report, since a small number of extremely large institutions would tend to skew the central tendency and distort general impressions. For instance, the range of full-time staff is 7-152, and of part-time personnel is 0-174.)

The production of new doctorates has more than tripled over the past ten years, from 681 in 1949 to 2043 in 1958. However, the production during the two most recent years has slowed down. In 1956, 1627 new doctorates were produced; while in 1957 this number had been increased by only 174, with a two-year total of 3428. This number was almost equally distributed between public and private universities, with the private institutions accounting for 52% of the total (Vol. II, Table 10).

Greatest production was concentrated in a very small number of institutions, with nearly 25% of all advanced degrees being conferred by two institutions, and a third (33%) granted by the five highest producing (Vol. II, Table 9). The Middle Atlantic States constituted the region of greatest productivity, accounting for 36% of all doctorates in Education. The East North Central Region came in second with 19% (Vol. II, Table 11).

While the variety of fields of concentration extends over 59 different areas, over 50% are in the five largest fields of: School Administration (22%), Guidance and Counseling (10%), Educational Psychology and Child Development (9%), Elementary Education (6%), and Secondary Education (5%) (Vol. II, Table 14).

Characteristics of the Recipient Sample

Three thousand three hundred and seventy-five questionnaires were mailed to individuals who had received a doctorate in Education during the 1956-58 period. Of these, 2542 were usable returns, representing 78% of the total (Vol. I, Table 2). Sixty-six percent were recipients of the Doctor of Education degree, and 34% received the Doctor of Philosophy in Education degree (Vol. I, Table 3). These percentages vary somewhat from those yielded by the institutional phase which showed 63% receiving the Ed.D. and 37% the Ph.D. However, since these reports are based on less than a 100% sample,

the differences may be accounted for in the missing returns. (The graduate phase was based on 2542 returns, and the institutional phase reported on 3428 (Vol. II, Table 9). Since the institutional phase is based on a higher percentage of the total, its figures are probably more nearly accurate.)

Important differences are revealed in the fields of concentration chosen by the recipients of the two degrees. Students who chose School Administration, Curriculum, or Secondary Education were candidates for the Ed.D. in over 80% of the cases, while those who specialized in Clinical Psychology, Educational Psychology, or Social Foundations favored the Ph.D. (Vol. I, Table 6).

A greater proportion of men than women chose the Ed.D. degree. This is probably explained by the fact that men tended to choose the field of School Administration where 86% of them pursued the Doctor of Education degree.

The sample can be characterized sociologically as strongly mobile in an upward direction. While those who succeeded in obtaining an advanced degree may be classified exclusively as "professional," only 30% of the fathers and 3% of the mothers may be so classified (Vol. I, Tables 16 and 19). Thirty percent of the sample were reared in large cities or their suburbs, and over 50% came from towns of more than 10,000 population (Vol. I, Table 11). The "Great Plains" States seem to produce a much higher proportion of the total group than might be expected from the general distribution of population, while the Southern States produce generally less than expected. About 80% of the sample was married, and 84% of these had children (Vol. I, Table 24). Sixty-two percent of the spouses held a bachelor's degree or higher, usually in the field of Education (Vol. I, Tables 25 and 26).

The age of the group at the time of completion of the degree was 38-39 for the candidates for the Ph.D., and the Ed.D. recipients were about two years older. On the average, the graduates had about ten years of prior experience, with the men reporting from two to three years of military service.

I. GENERAL CHARACTERISTICS OF THE INSTITUTIONS AND INDIVIDUALS

Implications and Suggestions for Discussion

1. While 92 different institutions engage in doctoral programs, 25% of the candidates were graduates of two institutions; 33% were graduated by five; and nearly 50% of the graduates came from the 12 largest institutions.

   a. Should we encourage the continued growth of the largest institutions, or is there a need for increasing the production of others?

   b. Is there an optimum size of graduate faculty necessary for the development of *quality* programs?

      In other words, can graduate institutions be either too large or too small for most efficient preparation of graduate students?

2. Different patterns of administrative control of the two degrees seem to suggest that the Ph.D. in Education should be controlled by the Graduate School, whereas the Ed.D. may be properly delegated to the College of Education. However, many institutions obviously use the same administrative control for both degrees.

   a. Is there one type of administrative organization that is better than another for the control of degrees in Education?

   b. Is it better to have a "horizontal" administrative organization, with a graduate college controlling <u>all</u> graduate degrees, or should the organization be "vertical," with a single college controlling all degrees in its field?

3. Students who elect certain fields of concentration, such as School Administration, tend to be candidates for the Ed.D., while those electing Clinical Psychology tend to select the Ph.D.

   a. Are there sufficient differences in the program or preparation for the two degrees to suggest that one is more appropriate to one kind of specialty than another?

4. The fields of School Administration and Counseling and Guidance account for a third of all doctorates in Education.

   a. Do we need to consider the importance of a better distribution of areas of specialty in terms of the needs in the field?

5. Fifty-six different fields of concentration are reported, with the Ed.D. covering 50 of them and the Ph.D., 49. In many institutions it is possible to get either degree in the same field.

   a. How far is it desirable to go in specialization?

   b. Can we defend graduate concentration in such areas as Extension Education, General Planning, Cocurricular Education, and Group Process and Development?

6. Evidence in the graduate phase of the study reveals that the traditional source of doctoral candidates--the small towns and semirural areas--is rapidly diminishing in its supply. Teaching has been characteristically used as a means of effecting upward social mobility.

   a. If an increasing number of candidates continue to come from urban centers, what effect will this have on the character of the candidate population and its expectations of the doctoral program?

      (Urban population seems to be more interested in specialization.)

II. THE RECRUITMENT OF CANDIDATES

If there is to be any substantial increase in the number of candidates for advanced degrees in the immediate future, it is particularly important that considerable attention be paid to the source of supply and the means by which it may be tapped effectively. It would appear from an examination of the evidence produced by the study of recipients of doctoral degrees that the major factors affecting the choice of institution, the kind of doctoral program chosen, and even the extent to which candidates are capable of continuing study after they have begun, are largely fortuitous rather than deliberately considered by the degree-granting institutions.

While the institutions polled reported that they exercise some initiative in attempting to attract promising candidates, these efforts are largely restricted to the efforts of individual faculty members, with 48% of the institutions reporting this as a major means of recruitment (Vol. II, Table 43). Other than this, 33% depend upon their publications to bring the advantages of the program to the attention of students and 21% hope that the availability of financial aid will make their institution attractive. It is important to note that 39% of the institutions frankly reported that they did not engage in any systematic effort to attract doctoral candidates.

The Timing of the Decision to Engage in Advanced Study

An examination of the responses of those who complete doctoral programs reveals that many factors are influential in their choices. In the first place, it is important to emphasize that most students do not make a decision to pursue advanced work early in their carrers. Nearly three-fourths of them wait until they are already engaged in graduate work, or have completed work on the master's degree, before deciding to continue their studies (Vol. I, Table 29). Since an overwhelming proportion (87%) of those who became candidates for a doctorate in Education engaged in some form of educational work prior to their candidacy--usually teaching and/or administration--and probably elected to continue their graduate work for the purpose of improving their financial welfare, the decision to continue work for the doctorate became a matter of expediency (Vol. I, Table 58). In only a small percent of the cases had the candidate considered the advantages of the doctoral degree during his undergraduate days (12% of the Ed.D.'s and 21% of the Ph.D.'s).

Reasons for the Decision To Engage in Doctoral Study

The most influential factors determining the decision to pursue an advanced degree are: the advice or example of a former professor, the counseling of one's professional colleagues, and the urgings of one's spouse (Vol. I, Table 32). Respondents frankly admitted that in nearly 35% of the cases chance determined to some degree their choice of the institution from which they eventually received their doctor's degree (Vol. I, Table 76).

When asked to indicate their personal reasons for wanting an advanced degree, the respondents gave the kinds of answers one could easily predict, such as the desire for new knowledge and to remain well qualified in their professional work; but, equally important was the natural desire to increase their earnings and to advance in the profession (Vol. I, Table 35).

The three most influential material factors which enabled students to pursue their advanced work were: an unexpired G.I. Bill, obtaining a scholarship or fellowship, and personal savings (Vol. I, Table 37).

Prior Experience of the Candidates

Half of the candidates for doctoral degrees earned their undergraduate degree at one of the major private or public universities (Vol. I, Table 41). Since these same institutions are the ones in which the majority of doctorates (95%) are awarded, there is some reason to believe that one of the important factors in the decision to pursue a doctor's degree is the presence of such a program on the campus of the student's undergraduate institution. While nearly a third of the students (32%) received their three degrees from different institutions, 13% stayed at the same place for all three degrees (Vol. I, Table 53). Eighteen percent received the bachelor's and master's degrees from the same institution, and nearly a third obtained their master's and doctor's degrees on the same campus. In other words, two-thirds of the students were awarded two of their three degrees by the same college or university.

There appears to be a slight difference between the two degrees in Education with regard to the concentration of all degrees at the same institution. Thirty-five percent of the candidates for the Doctor of Education degree received their three degrees from different institutions, while this was true of only 27% of those who obtained the Doctor of Philosophy in Education (Vol. I, Table 55).

A third of those who completed the requirements for the doctorate held an undergraduate major in Education, but an almost equal number specialized in the social sciences at the undergraduate level (27%) (Vol. I, Table 44). However, a much larger proportion (69%) of those who received doctorates also completed a master's degree in the same field.

One-half of the doctoral candidates completed their undergraduate degrees in complex state universities, but a much larger percentage (82%) obtained their master's degrees in this type of institution (Vol. I, Tables 42 and 46).

Sixth-year programs in Education have developed too recently to produce much evidence concerning the extent to which they constitute an aspect of the candidate's program of study leading to the doctorate. It is not surprising to discover that only 1.5% of the sample reported the completion of work leading to a certificate of advanced standing (Vol. I, Table 52).

A definite pattern of prior professional experience is revealed by the study of recipients of advanced degrees. A large portion (87%) of those who eventually obtained doctorates in Education came from some educational position, either in the public schools or colleges (Vol. I, Table 58). After an initial period of public-school service during which time they completed their master's degree requirements, they continued on into the early stages of the doctoral program. At this point, they either chose to remain in the public schools in some administrative or specialist capacity, or accepted a teaching position in an institution of higher learning and became a serious candidate for an advanced degree. This pattern varies significantly between those who pursued the two degrees. While half of those who received the Ed.D. degree came directly from a public-school position, this was true of only about a quarter of the Ph.D. recipients (Vol. I, Table 62).

The strong influence of the nature of prior experience on the selection of the type of degree is particularly apparent for those who elected the Ed.D. degree (Vol. I, Tables 60-66). Success in the teaching field or administrative position is likely to incline one to pursue a program of advanced study which maximized ability already demonstrated.

Factors Influencing the Choice of Institution

Evidence pertaining to the reasons candidates chose a particular institution for advanced study is not flattering to the graduate school. Over half the respondents indicated that proximity played an important part in their selection (Vol. I, Table 71). The study does not reveal whether proximity results in better knowledge of the institution and its program or becomes a matter of convenience. It would seem important that institutions discover to what extent their services are being used simply because they are conveniently available and to what extent individuals choose them because of their reputation for excellence. Some evidence of the latter is revealed by the fact that nearly two-thirds (63%) of the respondents indicated that they chose the institution because of the reputation of individual faculty members (Vol. I, Table 71).

In order that unwarranted conclusions are not drawn, several factors involved in the selection process need to be related. Since candidates for doctoral degrees tend to begin graduate study while they are currently engaged in some educational enterprise, it is understandable that they would choose the institution most accessible to them and to which they might go while fully employed. Once they begin their studies at the master's degree level, convenience impells them to continue this pattern until forced by the residence requirement to enter the graduate school full-time. This conclusion is borne out by the fact that 37% of the respondents listed "credit already earned" as an important reason for their choice of the institution to which they applied for candidacy (Vol. I, Table 71).

Although the chance factors listed above account for nearly half the reasons for choosing a particular institution, one must not discount the degree to which these fortuitous circumstances happen to fit into a person's careful planning for his advanced work. The large universities which produce the greatest number of doctoral graduates, are situated in heavy concentrations of population, which also represents the biggest pool of potential candidates. Irrespective of the institution's proximity, one cannot summarily dismiss the students' claims that their choice of institution was influenced by careful planning.

II. THE RECRUITMENT OF CANDIDATES

Implications and Suggestions for Discussion

1. It is quite clear from the evidence that the choice of institution is determined as much by chance as it is by careful planning. Recruitment seems to be a haphazard enterprise, with institutions depending more upon professorial reputation than formal procedures.

   a. Is this as it should be, or is it important that particular institutions develop unique programs which would be attractive to particular kinds of students?

   b. In other words, should institutions of higher learning continue to engage in a competitive appeal for the largest number of students it can attract? Or,

   c. Is there hope that cooperation among them will result in the careful selection of certain kinds of students for which their programs are specifically planned?

2. The great majority of doctoral degree holders decided late in their professional career to become candidates for the degree. In many instances, credit is accumulated without definite pattern in the early stages of advanced work.

   a. To what extent is it desirable that college teachers and/or public school administrators plan early in their career to engage in doctoral study?

   b. How can the potentially promising future teachers and administrators be identified?

   c. At what stage in higher education should and could this be attempted?

3. It would appear that students view the possession of a doctorate as the means of improving their professional status. Thus, the perspective they bring to their advanced study is basically conditioned by the demands of their professional work.

   The vocational emphasis is largely responsible for the proliferation in fields of study. In any well planned recruitment program it is mandatory that there be a definitive conception of what a doctor's degree in Education attempts to do. In the eyes of students, it helps them to get a better job.

   a. To what extent does this conception agree with that of the curriculum makers of doctoral programs, and that of the professors who teach the various courses in the program?

4. The great proportion of doctoral degree holders in Education earned a master's degree in the same field.

   a. Unless both degrees were earned at the same institution, and carefully planned programs of study were developed to avoid duplication and repetition, is there a good chance that the fifth year of study will have little relation to what goes on in the sixth and seventh?

   b. Do we need to examine with care the nature of present master's degree programs, and to plan doctoral study in terms of it?

5. It appears that the major state universities are dominantly in the business of producing the overwhelming percentage of master's degrees in Education.

   a. Does this suggest that the private universities should take a more active part in this level?

   b. To what extent is the ubiquitous nature of the state university responsible for this situation, and what can and should be done about it?

III. ADMISSIONS PRACTICES

(In the following presentation of a summary of admissions practices, the word "admissions" refers only to initial entry into doctoral study. Admission to candidacy is discussed in Section IV.)

Those students who complete a master's degree and continue to do graduate work at the same institution (nearly a third of the total--31%) (Vol. I, Table 53) are usually permitted to take some course work before they make formal application for admission to candidacy. The other two-thirds are more likely to make formal application before beginning their doctoral work. In either event, certain general requirements are enforced as prerequisites to candidacy.

Accreditation of Prior Institutions

Ninety percent of the institutions require that the student present a transcript of credits from a regionally-accredited undergraduate institution, but only 64% require that former graduate credits be earned at an accredited institution. Part of the difference in the lower percentage requiring regional accreditation of prior institutions at the graduate level is explained by the fact that nearly a third of the institutions do not require possession of a master's degree for initial admission to doctoral programs.

Grade-Point Average Required

One of the traditional methods of determining the academic qualifications of students for advanced study has been reliance on demonstrated ability in their former college work. It is, therefore, surprising to learn that only 35% of the institutions reported that they expected candidates to present transcripts showing an academic level of "B" or better at the undergraduate level, and 58% stated that they expected the student to earn an average of "B" or better in their previous graduate work. Over a third (36%) did not specify any particular grade-point average for admission (Vol. II, Tables 17 and 18). In the two-thirds of the institutions requiring some grade-point average, the minimum levels acceptable were an average of "C" in the undergraduate program, and, with the exception of 1.2%, a level of "B" in the graduate work.

Admissions Examinations

Two-thirds of the institutions expect the candidate to take from one to three admissions examinations, with the largest number (30%) requiring only one. However, nearly a fifth of them require no formal examination at the time of admission to the program, but do require that certain examinations occur at the time of admission to candidacy (Vol. II, Table 24).

Over one-half (55%) require the student to present from one to three letters of recommendation, while 20% do not have such a requirement (Vol. II, Table 19).

Interviewing

It is a general practice for graduate institutions to engage in some more or less formal interviewing of candidates before acceptance into the program, usually by one or two individuals--the dean or major professor in the field in which the student intends to specialize (Vol. II, Table 25). Thirty-one percent of the private universities report that they do not engage in any formal interviewing at the time of admission, while only 21% of the public institutions do not engage in this practice (Vol. II, Table 26).

Age Requirements

Much has been said in recent years about the disadvantages of individuals of advanced age beginning doctoral study and the desirability of encouraging students to begin their work early in their careers. While it is true that 31% of the institutions do not encourage students over 45 to begin advanced study, two-thirds of them do not have any stated age restrictions. When an age limitation is enforced, institutions prefer that students be under 40 at the time of admission (Vol. II, Table 22).

Prior Experience

Normally, one might expect that those who pursue a graduate program in Education would bring to it a background of experience in some form of educational work. That this is a fact is borne out by the evidence in this study that 87% of them have such a background (Vol. I, Table 58). And yet, only a little over half (51%) of the institutions require that students present evidence that they have engaged in some kind of teaching experience prior to acceptance into the program (Vol. II, Table 21), and 49% require the possession of a teaching certificate (Vol. II, Table 20). The survey does not reveal to what extent the lack of requirement of teaching experience and certification is limited to a field such as clinical psychology, where it is entirely likely that the applicant was engaged in some form of noneducational employment.

Admission to Candidacy

Some reassurance can be given that institutions exercise some care in examining the qualifications of candidates after they have been admitted to the program by the fact that in 62% of the cases the student is admitted to advanced work provisionally, presumably on the assumption that final approval must await the student's demonstration of competency (Vol. II, Table 23). It is probably less important that certain arbitrary hurdles to initial admission be erected as it is to be sure that only the academically fit shall survive. These conditions will be examined in the next section.

III. ADMISSIONS PRACTICES

Implications and Suggestions for Discussion

1. Ten percent of graduate institutions do not require that students present credentials from accredited undergraduate schools, and 36% are unconcerned about the accreditation of prior graduate institutions.

   a. Does this represent a lack of confidence in accreditation, or does it merely indicate that the doctoral degree institution prefers to place its confidence in its own examination and selection procedures?

   b. Why should greater stress be placed on undergraduate than graduate accreditation?

2. Again, 36% of the institutions do not require any specific grade-point average to be earned in prior institutions, and one-fifth of the graduate schools are willing to accept an undergraduate academic average lower than "B."

   a. Does this mean that the student's prior academic achievement is of little importance, and that graduate schools are prepared to accept anyone who barely makes the minimum standard for graduation from college?

3. Is it important that there be an age limitation at the time of admission, and what good purpose is served when one is established?

4. Prior experience in the field in which a student intends to specialize seems to be a reasonable requirement, and a reasonably good argument might be made that this experience be in teaching and/or administration for those who desire a degree in Education. And yet, only half of the institutions have such a requirement.

   a. Does this mean that a student would be permitted to take all of his graduate work before having an opportunity to ground it in practice?

   b. If Education is to be considered a respectable profession, to what extent is it desirable that those who seek advanced degrees in the field should have demonstrated their serious dedication by presenting some evidence of their apprenticeship?

5. Twenty percent of the institutions have no formal admissions examinations, a practice which presumes that students are permitted to take whatever courses they choose until such time as is required to apply for formal admission.

   a. If this formal period is delayed any length of time, how does the institution control the tendency of students to accumulate credits, hoping later to have all of them accepted as integral parts of a planned curriculum?

6. Admissions practices vary tremendously among institutions.

   a. What evidence do we have that institutions with more rigorous and selective practices produce better-qualified graduates?

IV. REQUIREMENTS IN INSTRUCTIONAL PROGRAMS

Neither study gave much attention to an examination of the actual curricular requirements for doctoral study. Except for a small section reporting on required courses, major attention was devoted to administrative controls on the instructional program.

Core Requirements

Three-fourths of the institutions require a student to take a common core of courses for all areas of specialty within the degree. The courses most often mentioned as core requirements, with the percentage of institutions requiring them, were as follows (Vol. II, Table 39):

Educational Measurement and Research	61%
Educational Statistics	48
Educational Psychology	36
Philosophy of Education	34
Curriculum and Instruction	21
Educational Sociology	19
History of Education	16

Since institutions generally permit the student to concentrate 32-36 semester hours in the field of Education at the doctoral level, it is reasonable to expect that there would be more general agreement concerning the courses which are indisputably a part of any program (Vol. II, Table 35). The widespread requirement of Educational Measurement is understandable, but it hardly constitutes a desirable core of fundamental studies.

Semester Hour Requirements

As might be expected, there is a great concentration of Education courses in the Ed.D. degree, with 59% of the institutions reporting that it is possible for a student to take all of his course work in this field (Vol. II, Table 37). Ph.D. candidates are inclined to take a larger number of courses outside their specialty, with 43% of the Ph.D. programs expecting this kind of related study as compared to 38% of the Ed.D. programs (Vol. II, Table 36). The median number of hours taken outside Education is 18 for the Ed.D. and 15 for the Ph.D. However, since the Ed.D. candidate is expected to take a larger number of total hours of doctoral work, this represents 20% of the total in both cases.

In the survey of student reactions to their course requirements it is interesting to note that 94% of the respondents felt that their studies were appropriate and useful. Seventy-five percent felt that the balance between work in the major field and the required related study was good (Vol. I, Tables 93-96). However, 13% reported that they were concerned about what they felt was an overemphasis in their major field. Evidently, if this group had had more freedom of selection, they would have taken more work outside their major.

Candidates for the Ed.D. degree are expected to take a larger number of total hours beyond the master's degree than are those who elect the Ph.D. The median number of hours for the former is 60 and for the latter, 48 (Vol. II, Table 28). On the assumption that 30 hours are required for the master's degree, this would mean that candidates for the Doctor of Education degree need to complete a total of 90 semester hours of graduate work, and candidates for the Doctor of Philosophy in Education degree would need to complete 78. This difference in semester-hour requirements may be partially explained by the original intention of graduate schools to compensate for the concern that the newer degree would fail to carry an equivalent degree of academic respectability, and partly because of the conception of the Doctor of Education as one with a broader command of related fields and consequently less concentration in any one of them. That this early dream has not been realized is revealed by the notable lack of difference between the two degrees other than the number of hours required for graduation, differences in the language requirement, and the nature of the final research project.

Institutions generally expect about the same amount of concentration in the field of Education. The median number of hours for the Ed.D. is 32 and for the Ph.D., 36 (Vol. II, Table 35). Proportionally, however, this difference is significant.

Language Requirement

Perhaps the sole distinguishing difference between the two degrees is to be found in the language requirement. Three-fourths of the candidates for the Ed.D. were not required to take a foreign language, while 96% of the Ph.D. candidates were required to take at least one (Vol. II, Table 40).

Students do not report favorably on the functional value they believe the study of a foreign language holds (Vol. I, Table 97). Sixty percent of the respondents reported that they did not feel that their language study was valuable to them. While no breakdown in responses between the two degrees was made, it would be interesting to speculate concerning the extent to which candidates for the Ph.D. degree differed from candidates for the Ed.D. in their appreciation of this requirement. The only

evidence presented on this matter is the surprising fact that, while 60% of those who completed the language requirement expressed dissatisfaction, only 54% of those who did not fulfill such a requirement felt that it would have been a waste of time (Vol. I, Table 98).

Two-thirds of those who reported on their language study indicated that they spent from one to six months in preparation with a median of five months (Vol. I, Table 77).

Transfer Credit

The median of the maximum number of hours permitted to be transferred from another institution is 45, presumably 30 of which have been earned at the master's degree level (Vol. II, Table 30). The median number of transferable hours for the Ed.D. is 16 and for the Ph.D., 17.5 above the master's degree (Vol. II, Table 31).

Time Limit on Advanced Study

Most institutions provide a period of seven years for completion of all degree requirements, but the average number of years students take is nearer to five (Vol. II, Tables 33 and 34). Some interesting variations in requirements between the two degrees is revealed. Three-fourths of the institutions awarding the Ph.D. in Education require students to be in residence two semesters, while of those awarding the Ed.D., only 55% stipulate this requirement (Vol. II, Table 32). It is possible, in a larger number of cases of those who receive the Ed.D., to satisfy residence requirements by attendance at summer sessions only (27% of the institutions as compared to 17% for the Ph.D.).

The length of time allowed by institutions for completion of all requirements is considered generous when compared to that actually used by the students. While over 25% of the students reported that they took more than the allowable seven years, half of them completed all work in 60 months (Vol I, Table 80). The median length of time in residence for the Ed.D. was 18 months, and for the Ph.D., 24 months. The difference in these medians may well be accounted for by the fact that a greater number of Ph.D.'s engage in a conventional dissertation, and it is a matter of common knowledge that considerably more time is often taken to complete this requirement than is taken to satisfy all others.

Student Load

Most institutions place some limitation on the number of semester hours of work which may be carried by a student who is fully or partially employed during his period of study. While the standard semester hour load for full-time students is 15, a student employed full time is typically restricted to 5 semester hours of graduate study. Proportionally, a student employed three-fourths time is restricted to 6 semester hours; one-half time, to 10 hours; and a person on one-fourth employment may usually take 12 hours of work. The median semester hour load for the summer session is 10.

Extension Credit

The question of whether or not extension courses should carry credit on doctoral programs has been a moot one for years. Considerations relative to the availability of study and library facilities are usually taken into account, but the studies do not reveal any evidence of that fact. Under the circumstances, it is surprising to discover that nearly half of the institutions permit extension credit, with some permitting as much as 30 hours.

Grade-Point Average

Institutions generally place some lower limit on the grade-point average expected during the course of doctoral study, with 76% reporting that students must maintain an average of "B" or better. This lower-than-expected percentage is accounted for by the practice of some institutions to use methods other than the conventional marking system for determining their students' level of academic performance. In very few instances does an institution report no concern for grades as such.

Final Written Project

The completion of a traditional dissertation was reported as required in 79% of the Ed.D. programs and in 96% of the Ph.D. programs. In 13% of the cases, Ed.D. candidates had a choice of either writing the conventional dissertation or reporting on some developed field project (Vol. II, Table 42). Students report that they spent a median of 16 months in the preparation of the final project, with great variations in the amount of time spent (Vol. I, Table 78).

Examinations

In every case a candidacy examination was required for admission to the degree program--the only requirement of the reporting institutions on which there was complete unanimity. A final oral examination was as nearly universal, with over 95% of the institutions making this requirement. However, the final written examination is much less widespread, with less than a third of the institutions engaged in this kind of activity (Vol. II, Table 41).

Institutional Differences

Institutions producing the larger number of graduates differed from those with small doctoral enrollments in that they were less stringent in the requirements for residency, the requirements of cognate work, the undergraduate grade-point average; and they were more flexible in the foreign

language requirement. However, higher-producing institutions tended to be more structured in core courses required, the hours acceptable on transfer or earned in extension, and the preferred maximum age of applicants.

In comparing institutions of comparable size and resources, there is some indication that more flexible arrangements seem to correlate with greater "drawing power."

IV. REQUIREMENTS IN INSTRUCTIONAL PROGRAMS

Implications and Suggestions for Discussion

1. There is a small amount of evidence in the studies to show that individuals choose one degree over the other for various kinds of specialties, such as the Ed.D. for School Administration and the Ph.D. for Clinical Psychology, but there is clear evidence to show that this is not universally the case.

   a. To what extent would it be desirable and practicable to designate different degrees in Education for different purposes, i.e., the Ph.D. in Education for certain specialties, the Ed.D. for others?

   b. Do we need to make a distinction between research and teaching degrees?

2. There seems to be a complete lack of any agreement concerning a core of common courses required of all doctoral students in Education.

   a. Is there not a substantial foundation of subject matter on which all specialized work in Education rests?

   b. Would it not be desirable for all students of Education to be identifiable by their command of a common body of knowledge and understanding?

3. In a great majority of universities it is possible for a student to concentrate all his doctoral hours in education.

   a. Can we assume that breadth of knowledge and an awareness of the interrelation of Education with many other fields will have been achieved before doctoral study begins?

   b. To what extent is it essential that the doctoral program assures breadth by requiring work in cognate fields?

4. A greater number of hours required for completion of the Ed.D. degree assumes that this degree accomplishes something in addition to that achieved by the Ph.D. There is no evidence in the studies that one degree varies significantly from the other except in the foreign language requirement.

   a. To what extent is the additional hours required of Ed.D.'s merely an attempt to compensate for the fear that the newer degree will not carry an equivalent degree of prestige?

   b. Is there not a great need that the curriculum design for the two degrees be substantially different, and that the additional hours for the Ed.D. be used to create this difference?

5. Although three-fourths of the Ed.D. candidates are not required to complete any foreign language requirement, one wonders what differences are to be found in the two degrees in the 25% of institutions which do require Ed.D.'s to satisfy the language requirement.

   Unless other distinguishing characteristics are to be found in individual institutions, it is fair to assume that the choice of one degree over the other may be determined solely on the basis of prestige.

6. A majority of the students report that language study has no functional value for them.

   a. In view of the above fact, should we persist in exacting this requirement?

   b. To what extent is it defended on invalid assumptions--that the student will need it in his original research?

   c. To what extent are we guilty of keeping the requirement in solely on the basis of its "mental discipline"?

7. Universities have customarily argued that a full year of residence is mandatory so that the student may have an opportunity to devote full attention to his studies and will have an opportunity to round out his program of studies under continuous guidance.

   a. Has this original defense become obsolete in the Ed.D., where nearly half the institutions permit the student to complete all requirements without this full year of residence?

   b. To what extent have the variations, such as counting summer session, become an accession to expediency?

8. It is an open secret that it is difficult to duplicate the conditions of campus study in extension centers, and yet nearly half the institutions will permit some credit to be earned in this manner.

   Again, the question needs to be asked concerning our willingness to sacrifice academic standards in order to make doctoral credit easily available to students.

9. While three-fourths of the institutions require a minimum grade-point average of "B" or better, others are willing to settle for less.

   It is a well-known fact that merely establishing an arbitrary minimum sometimes serves only to elevate the marking standards; but it would seem desirable, until some better method of judging the quality of students' work comes along, to hold to a high standard of grades as one of the few criteria we have for weeding out the incompetent.

10. Less than a third of the institutions are requiring a final written examination.

    a. Is this the result of large enrollments in doctoral programs?

    b. Has this traditional method of testing the total competence of the candidates been replaced by the more easily administered oral examination?

    c. To what extent is it possible to engage in more than a cursory examination of the candidate's qualifications in a two- to three-hour period?

11. The term "terminal research project" was used in the institutional phase of the study to identify the traditional dissertation expected of most doctoral candidates.

    It is less disturbing to discover that this requirement is virtually universal for the Ph.D. than it is to find that it is nearly as general for Ed.D.'s.

    If candidates for the former degree are interested in pursuing a professional life requiring research techniques, it is reasonable to expect that they will both develop skill and demonstrate their competence. But, a large portion of graduates enter teaching and administrative careers which make little demands on their research abilities.

    a. Is there a need for reconsidering this almost universal requirement and for individualizing it in terms of the student's professional specialty?

    b. Is there danger that excessive emphasis and concentration on research may poorly prepare a person for a professional career in nonresearch activities?

12. In a great majority of cases, doctoral and master's degree students are taught in the same classes.

    a. Are the educational purposes, objectives, and procedures identical for both levels of preparation?

    b. Should they be identical, and if not, what are the differences?

V. PERSONNEL FACTORS AFFECTING COMPLETION OF DEGREE

The graduate phase had much to report on the conditions which facilitated or impeded the completion of degree requirements; but, since the survey was concerned solely with those who actually completed their work, little is known about the extent to which these same factors were responsible for some students to drop out of the program completely, or to so seriously delay their work that their cases could not be included in the study. The only evidence available is the report of institutions on their judgments concerning the causes of failure, of which financial difficulties and low academic standards of achievement were most often mentioned (Vol. II, Table 50). Four institutions reported that they had made studies of the causes of drop-outs, but no nationwide survey has been endeavored.

Housing

In the large centers of population, in which most of the major universities are located, housing is a perennial problem for all, even for those who seek permanent residence near their work. For doctoral candidates who are usually concerned only with temporary housing during the duration of their studies, this problem is acute. Only a little over half of the institutions stated that student housing on campus was easily available, and even then, in 82% of the cases, no priority was given to doctoral candidates (Vol. II, Table 49). Presumably, the rest had to shift for themselves, finding whatever accommodations suited their needs and pocketbooks. That this problem was not satisfactorily solved is attested by the fact that 26% of the students indicated housing problems, of which the high cost and the inadequacy of accommodations were most frequently mentioned (Vol. I, Tables 137 and 138). Only 15% of the students made use of houses for rent in the immediate vicinity of the campus owned and operated by the university (Vol. I, Table 136).

Social Life

Social life depended to a large extent upon what the students made it. Nearly three-fourths of the institutions tended to encourage student interaction through an active program of informal seminars, professional organizations, and social events; and 87% of the students felt that these had considerable value to them (Vol. I, Tables 101 and 102). Less than half (44%) of the students reported that interaction between students and faculty was fostered to any considerable extent at their institution, but a large portion of them (80%) indicated that this kind of personal contact was of high value to them (Vol. I, Tables 105 and 106). It is clear from the evidence that students feel that student-faculty interaction is more important than social life among the students and that they would like to have more.

Finances

The financial situation with regard to the help students obtain in subsidizing their work is universally dismal. The high cost of advanced degrees and the paucity of financial aid available may, in part, explain the present shortage of doctoral degree graduates. If one chooses a private institution for his advanced work, he faces the stark reality of high median tuition costs of $750 a year as compared to the more modest cost of $180 at a public institution (Vol. II, Table 44).

Although 36% of the respondents reported that they are drawing on the largess of the Federal Government for financial support during residency, 47% indicated that they are paying part of the cost out of their own pockets (Vol. I, Table 119). Sixty percent reported that they are getting some assistance from the university in the form of fellowships and assistantships; 28% were depending upon the earning capacity of their spouses; and 13% had obtained loans. Universities offered assistance in the form of long-term loans, extension of payment of fees to the time when the candidate would again be fully employed, and emergency loans (Vol. II, Table 46). In 25% of the cases the university made no attempt to provide any help in the form of direct financial aid.

The financial picture is brightened somewhat when it is realized that universities are more inclined to depend upon some form of direct aid through scholarships and assistantships. Two-thirds (65%) report some form of grant-in-aid, but it is common knowledge that the amount of money involved is rarely more than a gesture of sympathy (Vol. II, Table 45).

Assistantships and Fellowships

The three types of assistantships commonly used are the assistant to a major professor, teaching assistantships, and research fellowships (Vol. II, Table 47). If a student accepts the responsibility of working with a professor, he may expect a median income of $1150 a year. The teaching assistantship will bring in a median income of $1425 a year; while the research assistantship is most lucrative, with a median income of $1838 a year (Vol. II, Table 48).

It is interesting to note that during the period of the study, more positions as assistants and fellows were available than were filled. Of the 1600 positions available, only 1529 were filled (Vol. II, Table 47). Evidently, candidates for doctoral degrees either do not know of the financial help available, or they turn away from them in favor of more remunerative positions outside the university.

Students who do avail themselves of educational appointments report enthusiastically of its educational value to them, and 80% indicated that it was an important source of financial aid (Vol. I, Tables 110 and 121).

Cost of Dissertation

Considerable disagreement is revealed between the two studies concerning the estimation of how much students were investing in their dissertations. A few institutions guessed an average of $300, while students insisted that the amount was nearer $500 (Vol. I, Table 81). Students bore the entire cost of the dissertation themselves in 69% of the cases, while 25% received some kind of financial aid (Vol. I, Table 83). Five percent were lucky enough to have the full cost borne by someone else, probably a foundation. Since 50% of the married students' wives worked, it is reasonable to assume that they were instrumental in relieving the candidate of some of his financial burden (Vol. I, Table 28).

Guidance During the Program

In the study of the graduates, attention was paid to the students' reactions to the kind of advice and personal assistance they received during the course of their advanced work. Generally, students were rather universally appreciative and complimentary of the help they received. They felt that the faculty was willing to put itself to some inconvenience in order to provide ample time for counseling with students, and 87% of the students reported that such aid was of considerable value to them (Vol. I, Table 112). They were equally enthusiastic about the cooperation received from the university and/or surrounding schools in providing sources of data and opportunities for experimentation (Vol. I, Table 116). However, when it came to the question of availability of facilities for compiling, tabulating, and computing data, their enthusiasm tended to wane a bit (Vol. I, Table 118).

Critical Periods

Somewhere along the thorny path to an advanced degree, most students (66%) reached a point where they faced the doubt of their ability to continue (Vol. I, Tables 85 and 87). Sometimes this questioning reached the stage where temporary interruption of their work was demanded, such as taking time off for full employment in order to accumulate enough money to continue. The 35% of students who reported that such an interruption became a dire necessity said that in three-fourths of the cases this was due either to a lack of funds (31%), or such heavy work pressures (45%) that continuing both graduate study and "keeping the wolf from the door" became intolerable (Vol. I, Table 86). If one adds to these two categories of incidences of interruptions those who found the going so rough they were permanently discouraged, the attrition rate would be astonishing.

Among all students, whether they reached the critical or near-critical stage, it is inevitable that they would find certain factors distracting to their studies. Of the 59% of students who so reported, four factors headed the list: noncourse duties (probably an assistantship), finances, family problems, and full-time employment, in that order of importance (Vol. I, Tables 86 and 88).

Help in Placement

No evidence is available concerning the type of permanent position into which the 1956-58 graduates are likely to go, except a record of the position held during the 1958-59 year. Whether this position represents the graduates' professional choice, or whether it represents a stop-gap appointment until a more desirable position is secured is not revealed. If the former, some comfort may be taken by the fact that 96% went into some kind of educational position immediately following graduation, with 66% reporting some involvement in teacher education (Vol. I, Tables 142 and 146). If these first positions are temporary ones, some concern must be expressed for the lack of involvement of the university's placement services in helping the student to secure a position of his choice. Students report that, while their new positions were secured through the assistance of their major professor in 19% of the cases, in only 13% had the placement office played an important role (Vol. I, Table 148). This barely matches the student's own efforts in seeking employment (14%). In other words, if one adds up all of the institution's facilities and efforts expended in helping the new doctorate to obtain desirable employment, it amounts to only 41% of the total (major professor, other staff personnel, and the employment office). Since only 11% of the students returned to former positions, this leaves nearly half of the students to shift for themselves.

V. PERSONNEL FACTORS AFFECTING COMPLETION OF DEGREE

Implications and Suggestions for Discussion

1. Two-thirds of the students report some kind and degree of critical interruption in their work, usually as a result of financial difficulties or heavy work loads at the university.

   a. Do we need to examine carefully the work conditions of doctoral students with the view to exercising greater jurisdiction over them?

      To what extent these pressures have become so great as to require a long-term interruption or a complete abandonment of the program is not known. Perhaps one of the most needed researches in graduate study is to inquire into this matter.

   b. Are we well aware of the degree of strain and severe pressure placed on students that go beyond the bounds of human endurance?

2. Special housing facilities for doctoral candidates is a rare phenomenon. Those who do doctoral work are usually older and more established heads of households.

   a. Is there a need to consider the necessity for establishing priority for them in the inadequate amount of housing facilities generally provided by the university?

   b. In view of the fact that doctoral students are already making a heavy financial investment in their graduate work, should not this housing be provided at nominal cost?

3. While students seem to appreciate the opportunity for informal student interaction, they suggest that a greater amount of student-faculty interaction be fostered.

   a. To what extent is it desirable for graduate faculties to provide systematic, well-planned informal seminars and social events by which students can gain a better acquaintance with and understanding of the total faculty with whom they work?

4. The resources of the G.I. Bill are now virtually exhausted.

   a. Do we need to consider the necessity of substituting for it some form of university aid?

5. It is well recognized that assistantships pay only nominal compensation and are hardly sufficient to provide subsistence during the period of advanced study. While it might be successfully argued that the expenses one incurs are an excellent investment in one's future professional career, it is a rare student who has the wherewithal to invest.

   a. Would it be possible for individual institutions or some governmental agency to provide an adequate lending agency?

6. The fact that not all of the assistantships and fellowships available were filled suggests that doctoral students are choosing other kinds of employment in order to finance their advanced study.

   a. Does this mean that, while the assistantship is probably the most desirable from a professional point of view, it lacks financial appeal commensurate with its professional appeal?

   b. Is it possible that the attractiveness of the assistantship has been seriously compromised by the knowledge that it is excessively demanding of the student's time and energy?

7. There is some reason to conclude that universities are not exerting enough effort at the two ends of the program--guiding students into areas of critical need and guiding them into positions of greatest demand.

   a. What responsibility does a university have for the proper placement of its graduates?

   b. Is the placement office avoided because it has not been effective, or do doctorates typically secure their professional appointments by other legitimate means?

VI. A LOOK TO THE FUTURE

The most recent estimates of the U.S. Office of Education indicate that by 1970 enrollments at all levels of higher education will double. Since there were approximately 9000 doctorates awarded in 1958, this figure for 1970 would be in the neighborhood of 18,000. Doctorates in Education account for about 18% of the total. Assuming that this relationship will be constant over the next decade, we may expect a production of approximately 3300 Education doctorates a year by 1970. This figure may be viewed as conservative when it is realized that 2043 graduates in Education were actually produced in 1958. Doubling this figure would probably give a more accurate estimate of over 4000 a year in 1970. When one adds to this the known fact that there will be, according to their own report, 34 additional institutions granting doctoral degrees by this date, it is reasonable to assume that the figure of 4000 may actually be an underestimate.

In an attempt to derive some figures which might provide more accurate guesses concerning the future, the institutional phase of the Inquiry asked the participating institutions to predict their future production up to 1970. Two-thirds of the institutions polled responded with estimates of 3700. To this total must be added the number of graduates that undoubtedly will be produced by the 34 additional institutions, beyond the 92 included in the study, which have added or will add a doctoral program by 1970. However, these optimistic estimates must be taken with a liberal dose of caution. To what extent institutions used any criterion other than their professional enthusiasm in projecting their plans is not known. A crude rule-of-thumb of estimating that doctoral graduates in general constitute about 5% of master's degree graduates and that doctorates in Education constitute about 18% of this total should caution against too ready an acceptance of the higher figures as accurate.

In order to discover to what extent new programs would contribute to the future production of doctoral students, a supplementary questionnaire was sent to the 291 institutions which presently grant only master's degrees as their terminal offering. Two hundred and eighty-nine returned the questionnaire, with the following information:

Seven institutions have already added the doctoral program and 27 others plan to do so before 1970. Twenty-one plan to offer the Ed.D. and 25 the Ph.D. (Vol. II, Table 51). Although more new institutions plan to award the Ph.D., the ratio between Ed.D.'s and Ph.D.'s in the total 126 institutions will remain at approximately 60% to 40% (Vol. II, Table 52). Again, a few more private institutions than public plan to add new doctoral programs, but the ratio will continue at the present rate of 70% public and 30% private (Vol. II, Table 53). Regional distribution will shift a little to the West, changing the present ratio of 60% eastern institutions and 40% western to 65% eastern and 35% western (Vol. II, Table 54).

It is interesting to note that the institutions now offering doctorates and those planning to do so show a continued popularity in the years ahead for the five fields of concentration of School Administration, Guidance and Counseling, Educational Psychology, Elementary and Secondary Education (Vol. II, Table 55); but plans for the future show a decided shift away from the field of School Administration, and an increase in such fields as Special Education, Science Education, and Audio-Visual Education (Vol. II, Table 56).

Sixth-year programs promise to increase at about the same rate as doctoral programs, with 25 additional programs being added to the present 59 (Vol. II, Table 51). These new programs will follow the pattern of emphasizing the five most popular fields for the doctorate in Education.

Plans to make important changes were reported by several institutions in regard to each of the following areas:

1. Discontinuance of provisional admission.
2. Addition of, or strengthening, examination requirements.
3. Improvement in admissions counseling.
4. Addition of core requirements.
5. Expansion of assistantships.

VI. A LOOK TO THE FUTURE

Implications and Suggestions for Discussion

As we look to the future, a number of pertinent and challenging questions call for courageous answers. These will be posed succinctly and may well represent the critical areas in which improvement is needed, and in which a greater degree of consensus or more uniform practice is desirable.

1. Should we continue to accept the present quality and cultural background of our students and attempt to turn out the best prepared people under the circumstances, or should we attempt to attract individuals with greater potential by arbitrarily elevating standards to the point where only the most qualified are accepted?

2. Should Ed.D. and Ph.D. programs be characterized more by similarities or by differences?

3. Should programs for either degree be highly prescriptive or completely flexible?

4. Does the absence of requirements in related fields of study lead to overspecialization?

5. What curriculum designs, if any, should determine the student's program leading to each degree?

6. Is there a need to come to some agreement concerning the administrative control for doctoral degrees, or may this safely be left to the discretion of individual institutions?

7. Have we already reached the saturation point in production of graduates in some fields to the detriment of others?

8. To what extent is it necessary that institutions control the production of graduates in terms of the needs in the field instead of a tendency to cater to the desires of individual students?

9. Are we getting the kind and quality of student who will profit most from advanced study in a field of specialization?

10. What financial inducements are necessary to attract the most qualified candidates?

11. How may we reduce the drop-out rate that is due to financial difficulties?

12. Should we be concerned about the 4 to 1 ratio of men to women? Are we ignoring a potentially abundant supply of doctoral candidates?

VII. RECOMMENDATIONS FOR FURTHER STUDY

Implied throughout both phases of the Inquiry, and specifically listed at the end, are the following recommendations:

1. A study of the actual demands for doctoral candidates in each of the major areas of concentration, by regions.

2. A study of the placement of doctoral graduates in terms of their field of preparation.

3. A study of the causes of drop-outs.

4. A study of the adequacy of present programs in preparing graduates for the professional competencies needed in the field.

5. A study of the minimal resources and conditions necessary for inauguration of a doctoral program.

6. An investigation of institutional controls, both administrative and curricular which hold the greatest promise for the production of highly-qualified and professionally-competent graduates.

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