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AN ANALYSIS OF FACULTY MEMBERS' ATTITUDES TOWARDS CONTINUING PROFESSIONAL EDUCATION: A STUDY OF FOUR PROFESSIONAL SCHOOLS AT THE UNIVERSITY OF LOUISVILLE

By

Patricia Bell

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ABSTRACT

AN ANALYSIS OF FACULTY MEMBERS' ATTITUDES TOWARDS CONTINUING PROFESSIONAL EDUCATION: A STUDY OF FOUR PROFESSIONAL SCHOOLS AT THE UNIVERSITY OF LOUISVILLE

By

Patricia Bell

Purpose of the Study

The purpose of this study was to analyze the attitudes of faculty members in the School of Dentistry, the School of Law, the School of Medicine, and the Speed Scientific School (the School of Engineering and Applied Science), four professional schools at the University of Louisville toward elective and mandatory continuing professional education. Nine research questions provided the guidelines for the research.

Procedures

A questionnaire was constructed to determine faculty attitudes toward elective and mandatory continuing professional education.

Seventy-three percent of the two hundred eighty-one full time faculty members responded to the questionnaire.

The study received the endorsement and assistance of the Vice President of Academic Affairs and the Directors of Continuing Education in the four professional schools.

Pearson's Product Moment Correlation was used to see if there was a relationship between the respondents' attitude towards elective continuing professional education and their age, years of professional service prior to the University of Louisville, and at the University of Louisville. The same procedure was used for mandatory continuing professional education.

An analysis of covariance (with years of professional service at the University of Louisville and years of professional service prior to the University of Louisville being covaried out) was used to find if differences existed between the respondents' attitudes toward elective continuing professional education (ECPE) and mandatory continuing professional education (MCPE).

A randomized block analysis of covariance was used to find if there were any differences between the four schools respondents' overall attitudes toward continuing professional education.

The amount of involvement in EPCE, MCPE, and ECPE-MCPE was broken down by school.

A breakdown of how the respondents wanted to be involved and where they wanted to be involved was done by school.

Major Findings

1. The respondents were more in favor of elective continuing professional education than mandatory continuing professional education.

2. The respondents from the engineering and medical schools were less in favor of continuing professional education than respondents from the law and dental schools.

3. An interaction between the attitudinal measures was found. Respondents from the four schools appeared to have similar attitudes toward ECPE. The medical school, engineering school and dental school had less favorable attitudes toward MCPE than ECPE. However, the law school seemed to be slightly more in favor of MCPE as compared to ECPE.

4. Five aspects of involvement were investigated: planning, research, evaluation, advisory capacity, and teaching. Approximately 25% of the respondents indicated no interest in any of the five aspects of ECPE while over 9% indicated interest in all five aspects of it. Some 46% of the respondents indicated no interest in any of these five aspects of MCPE while 5% indicated interest in all five aspects of it.

5. Of the respondents indicating an interest in being involved in ECPE, 55% were willing to be involved in planning, 37% in research, 37% in evaluation, 51% in an advisory capacity, and 91% in teaching. Of the respondents interested in ECPE, 31% indicated interest in being involved on a released time basis, 69% with overload pay, 63% in on-campus work, and 36% in off-campus work. Of those respondents indicating an interest in being involved in MCPE, 46% were willing to be involved in planning, 32% in research, 40% in evaluation, 51% in an advisory capacity, and 87% in teaching. Of the respondents interested in MCPE, 25% indicated interest in being involved on a released time basis, 76% on overload pay, 57% in on-campus work, and 29% in off-campus work.

In Memory of My Husband,

Hugh Clay Bell, Jr.

1923-1974

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"No one man can hope to be master of all knowledge, but he has a professional obligation to try to keep abreast of those portions which are essential to his practice. He cannot do so without continued reading and study. The knowledge he acquires in professional school may be sadly out-of-date long before he reaches retirement. He must not run the risk of subjecting his patients or clients to the dangers of obsolete knowledge. He must continue to be a scholar, even in the press of practice. . . . A professional person is a lifelong learner."[1]

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[1]William J. McGlothlin, Past Vice-President, University of Louisville, The Professional Schools (New York: The Center for Applied Research in Education, Inc., 1968), p. 28.

CHAPTER I

PURPOSE OF THE STUDY

The purpose of this study was to analyze the attitudes of faculty members in the School of Dentistry, the School of Law, the School of Medicine, and the Speed Scientific School (the School of Engineering and Applied Science), four professional schools at the University of Louisville toward elective and mandatory continuing professional education. Nine research questions provided the guidelines for the research.

INTRODUCTION

Obsolescence stemming from the accelerated growth and expansion of knowledge and technology is a central concept and concern in discussing continuing professional education. In order to maintain their job effectiveness, all professionals need to acquire new knowledge after receiving their last degree.

> "Ten or fifteen years ago, many colleges and universities regarded continuing education with condescension, if not outright neglect. Many schools viewed as almost their sole responsibility the training of young people for academic degrees. Once the students received degrees, they were on their own.
>
> That attitude has changed significantly in recent years. More colleges and universities are stressing continuing education. One reason is that

> schools are appreciating the fact that students can become seriously out of date in their professional knowledge and skills within a decade or more after graduation."[2]

A review of the literature in continuing professional education shows that the rapid growth of knowledge, human forgetfulness, the introduction of new technologies, changing national needs, changing societal and social values, individuals changing jobs, and job responsibilities means that the responsibility for lifelong learning can no longer be left solely to the professional--it is a responsibility that must be shared by the professional and the public.

THE DEVELOPING AWARENESS OF THE NEED FOR CONTINUING PROFESSIONAL EDUCATION

The following sections will describe some developments that have taken place in the movement toward continuing education in the four professions involved in this study: dentistry, law, medicine, and engineering.

Continuing Dental Education

Shortly after the enactment of Title XIX of the Social Security Act (Medicaid) in 1965, the concept of continuing education as a requirement for relicensure became a focal point of the dental

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[2]Howard J. Sanders, Continuing Education, Two-Part Report (reprinted from Chemical Engineering News, May 13 & 20, 1974), pp. 26-38.

profession's attention.[3]

In 1966, New York State's Department of Welfare proposed regulations that would require all dentists seeking reimbursement for services rendered under the Medicaid program to meet certain standards of continuing education. The standards were to be set by the Department of Welfare, State of New York.[4]

The American Dental Association's House of Delegates responded to New York's Proposal via a policy statement reflecting the association's opposition to an outside agency setting the standards for the profession in publicly funded health programs.[5]

Following the 1966 annual session of ADA House of Delegates, the Council on Dental Education considered the implications of the action of the New York State Department of Welfare and also reviewed the report of the National Advisory Commission on Health Manpower which commented at some length on the need to develop effective programs to assure the continued competence of health practitioners. The report identified the difficult problems that would be involved in any program to relicense professional practitioners. Nonetheless, the National Advisory Committee recommended that professional societies and state governments explore the possibility of periodic relicensing of physicians and other health professionals.[6]

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[3]Continuing Dental Education Requirements for State Dental Relicensure and Constituent Society Membership, Division of Educational Measurements, Council on Dental Education, American Dental Association (211 East Chicago Avenue, Chicago, Illinois, 60611),17 pp.

[4]Ibid. [5]Ibid. [6]Ibid.

> "In response to these developments and in the firm belief that the determination of all educational standards for practice should be the responsibility of agencies of the dental profession, the Council on Dental Education submitted a resolution to the 1967 House of Delegates urging that constituent dental societies, in consultation with state boards of dentistry, take steps to develop mechanisms to insure the continued competence of all dentists licensed in their jurisdiction. The House of Delegates voted to recommit the resolution to the Council for further study and report to the 1968 House."[7]

In 1968, the Council submitted a resolution of a more general nature which, after amendment, was adopted. This resolution urged that mechanisms be developed to foster continued education of dentists.[8]

Minnesota became in 1969 the first state to require continuing education for relicensure of dentists. Shortly afterward, other state boards were faced with the administrative task of a continuing education requirement and constituent societies began to study the feasibility of continuing education for maintaining memberships.[9]

By May, 1970, Kansas had become the second state to institute mandatory continuing dental education. In September of the same year, Kentucky followed suit.[10]

North Dakota and South Dakota adopted continuing education as a necessary requirement for relicensure in the summer of 1971.

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[7]Ibid., p. 2.

[8]Ibid.

[9]Ibid.

[10]Ibid.

Three years later (1974), California became the sixth state with such a requirement.[11]

By 1974, seven state dental associations and the District of Columbia Dental Society required continuing education in order to maintain membership: Colorado (1970), Washington State (January, 1971), Nevada (September, 1971), Arizona (January, 1972), Florida (1972), Louisiana (May, 1973), and South Carolina (May, 1974).[12]

Continuing Legal Education

In 1974, the National Committee on Legal Education and Admissions to the Bar of the American Bar Association (ABA) recommended that the American Law Institute (ALI), in cooperation with the American Bar Association, assume the task of providing continuing legal education. The ALI-ABA Committee on Continuing Professional Education is the result of that action. Since its establishment in 1947, the work of the Committee has been to provide members of the legal profession with continuing education opportunities in order to maintain and advance their professional competence on a voluntary basis.[13]

The Committee makes its publications available as course materials for local programs; it helps suggest speakers and lectures. The Committee furnishes assistance in the starting up of new continuing legal education organizations and it creates model

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[11]Ibid. [12]Ibid.

[13]"Annual Report, ALI-ABA Committee on Continuing Professional Education," ALI-ABA/CLE Review, Vol. 6, No. 34 (August 29, 1975), p. 4.

courses for use by others.[14]

On April 3, 1975, the Minnesota Supreme Court approved mandatory continuing legal education. Six days later, the Iowa Supreme Court also approved Mandatory Continuing Legal Education. These decisions meant that lawyers and in some cases, members of the judiciary were, and are, required to attend a fixed number of hours of continuing legal education programs over a one or three-year period. Non-compliance means that a lawyer could have his right to practice limited or suspended.[15] Currently, California, Wisconsin, Kansas, Maryland, Michigan, and Kentucky are studying the issue.

In October, 1975, the Michigan State Bar Journal devoted its entire issue to mandatory continuing legal education.[16]

Continuing Medical Education

In 1961, in recognition of the need for coordination and leadership in the continuing education of physicians, the Joint Study Committee in Continuing Medical Education was formed.[17]

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[14]Ibid., Vol. 6, No. 31 (August 1, 1975), p. 3.

[15]"Annual Report, ALI-ABA Committee on Continuing Professional Education," ALI-ABA/CLE Review, Vol. 6, No. 29 (July 18, 1975).

[16]"Mandatory Continuing Legal Education: What Where, How, When, Why, Why Not and Whether," Michigan State Bar Journal, Vol. 54, No. 10 (October, 1975), pp. 745-824.

[17]Bernard V. Dryer, "Lifetime Learning for Physicians--Principles, Practices, Proposals: Summary of the Report of the Joint Study Committee in Continuing Medical Education," Journal of the American Medical Association, 37 (May 26, 1962), pp. 676-679.

The Committee was composed of members from major medical organizations. The purpose of the committee was to consider the formation of a national agency for continuing medical education. The agency, if formed, was to be under the sponsorship of the major medical organizations. From this committee, Dr. Bernard V. Dryer was chosen Study Director.

In 1962, Dr. Dryer presented the committee report, "Lifetime Learning for Physicians--Principles, Practices, Proposals," to the medical community. This comprehensive "landmark" report emphasized the necessity of cooperative, long range planning by all concerned professional groups if lifetime professional education is to be achieved within a profession. The report covers the following topics: assumptions on which the report was based; the objectives, curriculum and evaluation procedures of a university without walls, curriculum and teaching materials; presentation and distribution system; elective participation; international extension and organizational structure. Eight health related national professional associations sponsored and joined in developing the study.[18]

In 1965, the Congress of the United States passed Public Law 89-239, in order to provide an approach for improving health care. The purpose of Public Law 89-239 was to provide monies by which professional staffs and supporting staffs could be obtained, and provide the means to support "people activities" in planning, to secure consultation, and to support operational programs, projects,

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[18]Bernard V. Dryer, editor, "Lifetime Learning for Physicians: Principles, Practices, Proposals," Journal of Medical Education, 37 (June, 1962), pp. i-134.

and activities. Medical continuing education has increased at a rapid rate, as a result of this law.[19]

Continuing Engineering Education

A central concern in continuing engineering education is that of obsolescence, as a result of the accelerated growth and expansion of knowledge and technology. Professional engineering societies have tried to deal with the problem of obsolescence by making the individual member in the society aware of this problem and possible solutions through journals and regularly scheduled professional meetings.

Realizing that this approach to stem obsolescence was not enough, the American Engineers Council for Professional Development set up a joint advisory committee to study the problem of continuing engineering studies. In 1964, the American Engineers Council for Professional Development, the American Society for Engineering Education, the Engineers Joint Council, and the National Society of Professional Engineers published a joint report titled, Continuing Engineering Studies to deal with the problem.[20]

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[19]Donald L. Erickson, Martha Nichols, editors, Learning How to Learn--Know Why and How Seminar on the Process of Continuing Education,(February 12-14, 1970, Laramie, Wyoming [WICHE--Mountain States Regional Medical Program, Wyoming Division, 3100 Henderson Drive, Cheyenne, Wyoming, 82001, August, 1969]), p. 1.

[20]Engineer's Council for Professional Development, Report of the Joint Advisory Committee, Continuing Engineering Studies (New York, April, 1965).

In 1965, the Engineers Joint Council for Professional Development (the council is composed of the nine major engineering societies) established a permanent committee on continuing education with a full-time director.

In 1968, the American Society for Engineering Education (ASEE) published a landmark comprehensive report entitled, "Goals of Engineering Education."[21] The report was the result of five (5) years of intensive surveys and analysis, and the accumulation of a large mass of data from other professions by the Goals of Engineering Education Committee of ASEE. The purpose of the report was to evaluate current programs, practices, and proposals in the light of their applicability ten or twenty years from then. On the basis of this report, the Committee proposed some broad goals for future engineering education. The report discussed the importance of continuing education as a distinct category in the engineering curriculum. It went on to say that the recommendations in the report were more than dealing with the problem of obsolescence, it was also a matter of establishing and maintaining an entirely new dimension of personal development throughout the engineer's career (lifelong learning). During that same year, the British Institution of Chemical Engineers began a study of continuing engineering education in the field of Chemical Engineering. In 1972, UNESCO published the Proceedings of the FEANI-UNESCO Seminar entitled, "The Continuing Education of Engineers." This

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[21]American Society for Engineering Education Goals Committee, "Goals of Engineering Education," Journal of Engineering Education, 58 (January, 1968), pp. 369-446.

report looked at the problem of continuing engineering education from an international perspective.[22]

Research Questions

The purpose of this study was to analyze the attitudes of faculty members in four professional schools*, at the University of Louisville toward elective and mandatory continuing professional education. The following research questions will be investigated:

1. Is there a relationship between the attitude of faculty members on elective continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?

2. Is there a relationship between the attitude of faculty members on mandatory continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?

3. Is there a difference in the attitude of the faculty members toward elective continuing professional education and mandatory continuing professional education?

4. Is there a difference in the overall attitude of the faculty members in the four schools toward elective continuing professional education and mandatory continuing professional education?

5. Do faculty attitudes toward elective continuing professional education differ according to school?

6. Do faculty attitudes toward mandatory continuing professional education differ according to school?

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* The four schools in this study are: Dentistry, Law, Medicine, and the Speed Scientific School (the School of Engineering and Applied Science).

[22]Sir Frederick Warner and Dr. R. Edgeworth Johnstone, Studies in Engineering Education: The Continuing Education of Engineers, Proceedings of the FEANI-UNESCO Seminar (Helsinki, 1972), 154 pp.

7. What percent of their time do faculty want to be involved in elective continuing professional education and/or mandatory continuing professional education?

8. For those professionals interested in elective continuing professional education, what type of involvement would they prefer?

9. For those professionals interested in mandatory continuing professional education, what type of involvement would they prefer?

Definition of Terms

Words and phrases have long created semantic problems. Depending on the content in which they are used, they could have different meanings. For the purpose of this study and in the interest of providing a more common understanding of terminology, the following definition of terms were used:

1. An Attitude is the predisposition or tendency to react specifically towards an object . . . by feelings and emotions.[23]

2. A Professional is one who has acquired knowledge through academic training or experience, which is practical in nature, is strongly organized, can be applied to solve problems of mankind and whose conduct is governed by a code of ethics.

3. Professional Learning is a procedure designed to screen candidates for admission to a profession and in some instances, to review periodically the qualifications of existing practitioners in order to protect the public through an effort to assure and certify minimum competence for the practice of the profession.[24]

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[23]Dictionary of Education, 3rd ed., s.v. attitude.

[24]The definition was adopted from the source: G. Lester Anderson and Merton W. Ertell, "Extra-institutional Forces Affecting Professional Education," Education for the Professions, The Sixty-First Yearbook of the National Society for the Study of Education, Part II (Chicago, Illinois: The University of Chicago Press, 1962), p. 237.

4. Continuing Education is "any kind of learning or teaching which extends or builds upon previous experience in the same general realm of knowledge and whose specific goals are not intended to terminate all study in that realm."[25]

5. Elective Continuing Professional Education is an organized educational program designed to keep the professional's learned skills up-to-date, to advance in his/her field and to learn about new problems to be solved, and which is voluntary in nature.

6. Mandatory Continuing Professional Education is continuing education for the professional worker which is required by law as a condition for certification or relicensure or by rule by a particular professional society or organization.

Instrumentation

A specially prepared generalized attitudinal scale will be used to measure faculty attitudes toward elective continuing professional education and mandatory continuing professional education.

A detailed description of the instrument and the areas which it will seek data is presented in Chapter III. A copy of the questionnaire can be found in Appendix A.

Assumptions of the Study

This dissertation has proceeded with the following assumptions:

1. Faculty members in this study are interested in and concerned about elective continuing professional education.

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[25]Cyril O. Houle, "What is Continuing Education," discussion paper for Seminar on Continuing Professional Education, University of Chicago, August, 1969. (Mimeographed.)

2. Faculty members in this study are interested in and concerned about mandatory continuing professional education as it relates to relicensure.
3. The respondents' answers to the survey questions represent honest appraisals.
4. Confidentiality to the respondents was sufficiently assured so that the lack of anonymity in some instances will not bias their response.

Delimitation of the Study

While this study is not universally applicable, the study can be generalized to some extent to institutions with similar characteristics or to professional schools within larger or smaller institutions.

This dissertation did not weigh individual questions toward their total attitude of the respondents.

Significance of the Problem

Continuing education literature emphasizes the concept of obsolescence stemming from the accelerated growth and expansion of knowledge and technology, and the concern to find suitable remedies. Some of the literature goes on to say that in order for professionals to maintain their job effectiveness, all professionals need to acquire new knowledge after receiving their last degree. Jesse H. Shera aptly states, "that degrees themselves are in part obsolescent because the knowledge the degree represents is

itself partly obsolete."[26]

At the present time, several of the professional boards of registration in the Commonwealth of Kentucky have studies underway relative to the position of mandatory professional continuing education in the licensing process. The results of this dissertation will afford meaningful input to those evaluations.

The University of Louisville, at the direction of the Kentucky Council for Public Higher Education, has developed an academic master plan for the University. The results of this dissertation may provide significant data toward a revision of this master plan in the area of continuing professional education.*

The results of this investigation might be used as a reference source for adult educators in the field of continuing professional education and provide data that can be used in conjunction with other studies in continuing professional education.

Overview of Dissertation

This study is organized into five chapters.

The first chapter, the introduction, includes: the purpose of the study, the developing awareness of the need for continuing professional education, the research questions the study will investigate, the definition of terms, instrumentation, assumptions, delimitation, and the significance of the problem.

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* The master plan will be under continual revision.

[26]Jesse H. Shera, "The Self-Destructing Diploma," Ohio Library Association Bulletin, 42 (October, 1972), pp. 4-8.

In Chapter II, the literature pertinent to the study is reviewed. This review will focus on elective continuing professional education and mandatory continuing professional education in the following professions: dentistry, law, medicine, and engineering.

Chapter III will present a methodology for answering the research questions posed in Chapter I.

Chapter IV will present the findings of the research.

Chapter V will present conclusions and make recommendations for further research.

CHAPTER II

SELECTED REVIEW OF THE LITERATURE

The related literature examines: (1) elective and mandatory continuing professional education in dentistry, law, medicine, and engineering and (2) how professionals in those fields feel about elective and mandatory continuing professional education. This review is not presented with the intention of providing a detailed description of elective and mandatory continuing professional education in these professions but rather is offered as representative of the literature in order to provide a better understanding of the conditions in which the investigation of the study was undertaken.

Elective Continuing Dental Education

Over the years the American Dental Association has been steadfast in its position that continuing study is the fundamental and lifelong responsibility of the professional man. Indeed, the first section of the American Dental Association's Principles of Ethics clearly affirms the responsibility of the dentist to keep himself abreast of scientific discoveries and developments which will assist him in his practice and enable him to render better care. "Education Beyond the Usual Level. The right of a dentist to professional status rests in the knowledge, skill, and experience

with which he serves his patients and society. Every dentist has the obligation of keeping his knowledge and skill freshened by continuing education through all of his professional life."[1]

In recent years the dental profession's interest in continuing education has accelerated. Technological change through research, innovations in the patterns of health care delivery, new clinical procedures, and an increasing social awareness has accentuated the need for dentists to remain professionally current.

The first dental society was the Society of the Surgeon Dentists of the City and State of New York. The Society was organized on December 3, 1834.[2] "This was a local organization, most of whose membership was composed of medically trained practitioners, and it was their philosophy that dentistry was a branch of medicine. Perhaps it suffered some isolation from the medical profession and thus sought to establish a surgeon-dentist group.[3]

The world's first dental association was started by Horace W. Hayden of Baltimore. After several failures, he finally succeeded in getting dentists organized on August 10, 1840 in New York City.[4] Dr. Hayden went from city to city to induce dentists to come together and interchange their opinions for the benefit of each other; he talked and wrote incessantly. In Boston, he

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[1]Principles of Ethics of the American Dental Association.

[2]Milton B. Asbell, "Horace H. Hayden (1769-1884), Father of Professional Dentistry," New York Journal of Dentistry, Vol. 39, No. 7 (August-September, 1969), p. 227.

[3]Ibid. [4]Ibid.

was very discouraged; however, in New York he found fifteen interested men and five from other cities, principally Baltimore, who organized an association of dentists.[5]

As time passed, " . . . medical faculties found it incompatible for dentistry to be taught as a medical discipline; dentistry needed separate facilities which were not available at medical institutions. Thus, it was that dental education became independent insofar as it was practical to arrange a dental curriculum that would provide the study of the biological sciences together with dental technological training."[6]

Drs. Hayden and Chapin A. Harris founded the first dental college in the world, the Baltimore College of Dental Surgery. They were also instrumental in the formation of the first dental periodical in the world--the American Journal of Dental Science.[7]

Continuing education in dentistry as it is now constituted, developed after World War II in response to the expressed needs of dentists returning from their tour of duty. These dentists needed to "refresh" themselves on the "new technics" and materials developed during their absence. As a result, there was a wave of demand for the dental schools to offer short refresher courses.[8]

Since the middle 1940's dental education has shifted from a technical orientation to an emphasis on the biological sciences.

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[5]Ibid. [6]Ibid., p. 229. [7]Ibid.

[8]Joseph L. Hozid, "Role of Continuing Education in Dental Obsolescence," Journal of the American Dental Association, Vol. 78 (June, 1969), p. 1300.

Today's rapid proliferation of scientific, professional, and technical knowledge requires that professional expertise be continually updated.[9]

By 1974, the following Constituent Dental Societies had instituted voluntary continuing education programs: Alabama, Alaska, Arkansas, Connecticut, Delaware, Georgia, Hawaii, Idaho, Indiana, Maine, Massachusetts, Michigan, Mississippi, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Virginia, Wisconsin, and Puerto Rico.[10]

Mandatory Continuing Dental Education

The 1964 Workshop of Dental Examiners and Educators provided the first real forum for the discussion of mandatory continuing education for dentists. The consensus of the workshop groups was that mandatory continuing education governed by law was undesirable and unfeasible. The workshop participants suggested that dental societies and dental educators be the prime motivators for dentists to attend courses and that perhaps course attendance should be established as a criterion for society membership. Moreover, it was the consensus that voluntary, rather than mandatory attendance was advisable.[11]

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[9]Ibid.

[10]Continuing Dental Education Requirements for State Dental Relicensure and Constituent Society Membership, Division of Educational Measurements, Council on Dental Education, American Dental Association (211 East Chicago Avenue, Chicago, Illinois, 60611),p. 6.

[11]John A. DiBiaggio, "Developments in Mandatory Continuing Education," Journal of Dental Education, Vol. 34 (June, 1970), p. 141.

In 1966, the attention of the House of Delegates centered on the proposed regulations related to the participation of dentists in publicly funded programs (Title XIX) in the State of New York. As a result of this concern, a resolution was presented to the House of Delegates which, after discussion and revision by the House, was adopted in the following form:

> "Resolved, That the American Dental Association support the position that the determination of the qualifications of the individual dentists participating in publicly funded health programs should be prerogative of governing bodies of component and constituent dental societies and state dental examining bodies."[12]

Two events in 1967 forced the dental profession to reassess its stand about mandated continuing education. The first was the establishment by the New York State Department of Health of a set of qualifications that dentists had to satisfy if they were to participate in the Medical Assistance Program (Medicaid) in New York State. The New York State Department of Social Welfare was to implement these standards. A requirement was included that the practitioners give "satisfactory evidence of completion of a total of seventy-five hours of continuing education over a three-year period."[13]

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[12]Reginald H. Sullens, "What is the Present ADA Situation? What Will it Ask the House of Delegates to Do With Pending Resolutions to be Submitted?" Journal of the American College of Dentists, Vol. 36 (July, 1969), pp. 191-192.

[13]John A. DiBiaggio, "Developments in Mandatory Continuing Education," Journal of Dental Education, Vol. 34 (June, 1970), p. 141.

This action by the State Department of New York, established a precedent which could be followed by states throughout the country. Before this time, a dentist needed only to be licensed to practice in New York to qualify for patient care under New York's Medical Assistance Program. In 1967, the State Department of Health listed three pages of qualifications in the New York State Policies and Standards for Dental Services.[14]

Equally important was the publication of the Report of the National Advisory Commission on Health Manpower. Noting a "quality gap" in the health care delivery system, the committee stressed that the "first requirement for assuring that health care approaches its potential quality is to make licensure effective to the limit of its capabilities."[15]

The commission recommended that "professional societies and state governments explore the possibility of periodic relicensing of health professionals. Relicensure should be granted either upon certification of acceptable performance in continuing education programs or upon the basis of challenge examinations in the practitioner's specialty. These actions rekindled the interest in mandatory continuing education and this became the topic of discussion for the Workshop of Dental Examiners and Dental Educators in 1968.[16]

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[14]Rexford E. Hardin, "Continuing Education Has Many Unresolved Questions," Ohio Dental Journal (September, 1970), p. 309.

[15]Ibid., p. 308.

[16]John A. DiBiaggio, "Developments in Mandatory Continuing Education," Journal of Dental Education, Vol. 34 (June, 1970), p. 141.

The harsh reality of the need for planning became apparent. The participants at this Workshop agreed that mandatory continuing education, governed by state boards of dentistry, be established as a requirement for relicensure. They also felt that the determination of regulations should be a function of the boards with recommendations from all professional and governmental agencies.[17]

The Council on Dental Education of the American Dental Association in its report to the American Association of Dental Schools stated that state boards of dentistry, in consultation with constituent dental societies, be urged to develop mechanisms to insure continued competence of all dentists licensed in their jurisdiction. Two important resolutions were proposed and approved by the 1968 House of Delegates: 1) to give continuing consideration to methods of determining the qualifications of candidates for licensure, and 2) to develop mechanisms to foster the continued education of dentists in their jurisdiction.[18]

A questionnaire was sent to all state boards asking if the dental laws had been changed or if changes were contemplated in the near future in the areas of continuing education and licensure, expanded duties for auxiliaries and recipriocity.[19]

The responses from this questionnaire showed that thirteen states had made changes in at least one of these areas, and that thirty-three others were contemplating changes. Proposed changes in dental laws of California, Minnesota, Missouri, and New Mexico would

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[17]Ibid., p. 142. [18]Ibid. [19]Ibid., p. 143.

require a specified amount of continuing education for relicensure or registry renewal.[20]

The Pennsylvania State Dental Council and Examining Board adopted a resolution which required as a condition prior to each biannual registration: the satisfactory completion of continuing education courses and/or attendance at a scientific dental meeting either to be approved by the State Dental Council and Examining Board. The Kentucky State Board of Dentistry and the Kentucky Dental Association was also giving the matter considerable attention.[21]

The 1967 Reference Committee on Dental Education and Hospitals support the desirability of dental boards and constituent dental societies developing mechanisms to insure the continued competence of dental practitioners but expressed concern about the suggestion that continuing education be considered as a condition for relicensure.[22]

In response to these developments, the Council on Dental Education presented to the House of Delegates a "Statement on Dental and Dental Hygiene Licensure," which included a recommendation that constituent dental societies in consultation with State Boards of Dentistry should take immediate and aggressive steps to develop mechanisms to insure the continued competence of

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[20]Ibid. [21]Ibid.

[22]Reginald H. Sullens, "What is the Present ADA Situation? What Will it Ask the House of Delegates to Do With Pending Resolutions to be Submitted?" Journal of the American College of Dentists, Vol. 36 (June, 1969), p. 192.

all dentists licensed in their jurisdiction." It was further suggested that such steps might include consideration of requiring continuing education for licensure renewal under provisions developed within each of the individual states.[23]

After extensive debate, the House of Delegates voted to recommit the resolution to the Council on Dental Education for further study and to report to the 1968 House.[24]

In 1968, the House of Delegates of the American Dental Association passed a resolution submitted by the Council on Dental Education to the effect that dental societies, in consultation with state boards of dentistry, are urged to develop mechanisms to foster the continued education of dentists licensed in their jurisdiction. During the 1968 Annual Session, a proposal was introduced that would amend the By-laws of the Association to permit constituent societies to require reasonable standards of continuing education for the maintenance of membership. The Council on Dental Education prepared the necessary by-law amendment changes, which were approved at the 1969 session of the House of Delegates.[25]

In December, 1968, a special session of the House of Delegates of the Minnesota Dental Association was called, and the proposed dental act after careful consideration and minor revision was adopted by the state dental association. The bill was introduced during the 1969 state legislature session and became law on

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[23]Ibid. [24]Ibid.

[25]Emanuel H. Malamed, "Continuing Education and Renewal of the Dental License: A Conference," Journal of the American Dental Association, Vol. 80 (February, 1970), p. 121.

June 6, 1969. The initiative for this legislation came from the Minnesota Dental Association.[26] Minnesota had no models to follow, since it was the first state to require continuing education for the relicensure of its dentists.

The requirements were: seventy-five clock hours continuing education for a five-year period, 1974-79. The reasoning for the five-year period rather than a one or two-year period was that the longer requirement period would protect the individual dentist from undue hardship in meeting the requirement because of temporary illness or disablement.[27]

In 1969, the American Dental Association's House of Delegates amended the By-laws, Chpater I, Section 30, Definition of "Good Standing:"

> "A member of this Association whose dues for the current year have been paid shall be in good standing, who is under disciplinary sentence of suspension shall be designed as a 'member in good standing temporarily under suspension' until his disciplinary sentence has terminated and provided further that a member engaged in practice, to remain in good standing, may be required to meet standards of continuing education established within the by-laws of his constituent society."

This passage allowed constituent societies to link a continuing education requirement to membership.[28]

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[26]Robert E. McDonnell, "The Minnesota Experience: Implementing Mandatory Continuing Education," Journal of the American Dental Association, Vol. 92 (June, 1976), p. 1223.

[27]Ibid., p. 1224.

[28]Rexford E. Hardin, "Continuing Education Has Many Unresolved Questions," Ohio Dental Journal (September, 1970), p. 309.

By May, 1970, Kansas became the second state to institute mandatory continuing education. Kansas' requirement was: ninety hours of continuing education over a three-year period.[29]

On September 2, 1970, Kentucky became the third state to require continuing education for relicensure. Twenty points every two years was the requirement.[30]

During the same period, the District of Columbia Dental Society added continuing education requirements to its By-laws.[31]

In 1970, the Colorado Dental Association made mandatory continuing education a requirement for membership. It stipulated that continuing education report forms be submitted by component societies with dues.[32]

At the same time, the Board of Governors of the Dental Society of the State of New York met in Buffalo and decided to support legislation which would make continuing education mandatory for re-registration. This was to be administered by the Department of Education and was to be for all health professions and was not to single out dentists.[33]

January 1, 1971, the Washington State Dental Association

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[29]Continuing Dental Education Requirements for State Dental Relicensure and Constituent Society Membership, Division of Educational Measurements, Council on Dental Education, American Dental Association (211 East Chicago Avenue, Chicago, Illinois, 60611),p. 11.

[30]Ibid., p. 4. [31]Ibid., p. 7. [32]Ibid.

[33]Joseph L. Hozid, "Role of Continuing Education in Dental Obsolescence," Journal of the American Dental Association, Vol. 78 (June, 1969), p. 1300.

instituted continuing education as a requirement for membership.[34]

North and South Dakota adopted continuing education as a necessary requirement for relicensure in the summer of 1971.[35]

On September 18, 1971, the Nevada Dental Association also adopted continuing education as a requirement for membership.[36]

January 1, 1972, continuing education became a requirement for membership in the Arizona State Dental Association. The requirements were twelve hours each year.[37]

March 4, 1972, the California Board of Dental Examiners had the state legislature enact a bill authorizing licenses of dentists be renewed in two-year intervals after showing that the dentist had pursued one or more courses of satisfactory study. This was to be a voluntary program.[38]

The Florida Dental Association also adopted continuing education as a requirement for membership. The requirement was to show evidence of thirty-five hours of continuing education a year.[39]

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[34]Continuing Dental Education Requirements for State Dental Relicensure and Constituent Society Membership, Division of Educational Measurements, Council on Dental Education, American Dental Association (211 East Chicago Avenue, Chicago, Illinois, 60611),p. 4.

[35]Ibid. [36]Ibid., p. 7. [37]Ibid.

[38]Leonard S. Janofsky, "Should a Lawyer's License to Practice Be Good for Life?" California State Bar Journal, Vol. 48 (March-April, 1973), p. 123.

[39]Continuing Dental Education Requirements for State Dental Relicensure and Constituent Society Membership, Division of Educational Measurements, Council on Dental Education, American Dental Association (211 East Chicago Avenue, Chicago, Illinois, 60611),p. 4.

Pennsylvania also had continuing education requirements. Pennsylvania required completion of one course and/or attendance at a scientific meeting of a dental organization every two years for relicensure. By 1972, the following states, Kansas, Kentucky, Minnesota, North Dakota and South Dakota had instituted this requirement. In four other states the dental societies made continuing education a requirement for membership. Three other states passed enabling legislation and eighteen states were investigating the revision of their state laws. The New York Medicaid program and the proposed Kennedy-Griffiths national health insurance plan (S3 and HR22) required evidence of continuing education. Continuing education was also required for membership in the Academy of General Dentistry. Some other dental specialty groups were also considering such a requirement.[40]

May, 1973, the Louisiana Dental Association instituted continuing education as a requirement for membership.[41] California and New Hampshire enacted enabling legislation to do the same and similar legislation was being considered in Alaska, the District of Columbia, New York, and Vermont.[42]

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[40]Erik D. Olsen, "Continuing Education--The Stepchild of Dental Education," Journal of Dental Education, Vol. 36 (June, 1972), p. 24.

[41]Continuing Dental Education Requirements for State Dental Relicensure and Constituent Society Membership, Division of Educational Measurements, Council on Dental Education, American Dental Association (211 East Chicago Avenue, Chicago, Illinois, 60611),p. 7.

[42]Richard A. Marsh, "Trends in Continuing Education--Where Are We Now? Where Are We Going in North Carolina?" South Carolina Dental Journal (Fall, 1973), p. 44.

In 1974, the Council on Dental Education issued its "Guidelines for Continuing Dental Education." These guidelines were approved by the American Dental Association House of Delegates. Activities and objectives of continuing dental education were given in the guidelines and responsibilities as to sponsorship, administration, curriculum, education, methodology, evaluation, faculty, facilities, and budget were outlined.[43]

On January 1, 1974, California required dentists to complete fifty hours of continuing education every two years.[44]

In May, 1974, South Carolina's Dental Association instituted continuing education as a requirement for membership.[45] As of January, 1975, only seventeen states were not considering adoption of some type of continuing education program.[46]

A landmark resolution introduced by the Eleventh District Dental Society was adopted by the Board of Governors at its New York meeting of December, 1975. The resolution stated, "The Dental Society of the State of New York is in favor of acceptable minimal continuing education credits to be periodically submitted by practicing dentists to the Board for Dentistry of the New York

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[43]"Continuing Education in United States Dental Schools," Journal of the American Dental Association, Vol. 92 (June, 1976), pp. 1225-1229.

[44]Continuing Dental Educational Requirements for State Dental Relicensure and Constituent Society, p. 4.

[45]Ibid., p. 8.

[46]Joseph C. Morganelli, "Current Status of Continuing Education," Illinois Dental Journal, Vol. 44 (October, 1975), p. 657.

State Department of Education as a requisite for re-registration."[47] "Continuing dental education credits shall be rated for acceptability as to quality, quantity, and sponsoring educational agency by guidelines developed in conference between the Dental Society of the State of New York and the Board for Dentistry."[48]

Before 1969, continuing education was not required for relicensure or for maintaining membership in any state society. By 1977, eight states required continuing education for relicensure and twenty-six states were considering such a requirement. Eight societies required continuing education for membership and thirty had voluntary systems.

Continuing Dental Education--Professional Attitudes

A review of continuing dental education literature shows six surveys germane to this investigation were taken during the period, 1967-1971. The surveys' findings will be presented in chronological order.

A seven-page attitudinal questionnaire was designed, tested, and mailed to all Kentucky dentists. The questions were related to the dentists' involvement in continuing education during 1967-68. Three hundred forty-four or 34% of Kentucky's dentists responded to the survey.[49] The survey showed that 72% of the respondents had

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[47]Joseph R. Valinote, "The Compulsory Continuing Education Debate--Pro Advocate," New York State Dental Journal, Vol. 42 (February, 1976), p. 75.

[48]Ibid., p. 76.

[49]John A. DiBiaggio, "Attitudes of Kentucky Dentists Toward Continuing Education: Results of a Questionnaire Survey," Journal of the American Dental Association, Vol. 80 (May, 1970), p. 1042.

attended one or more continuing education courses during the nine-month academic period.[50]

The last part of the questionnaire asked the dentists to sum up their attitude toward continuing education. The statements and percentages of affirmative responses:

> "My attitude toward formal continuing education courses may best be summed up in the following manner:
>
> They are totally unnecessary. (2%)
>
> Although some individuals certainly need such courses, I feel that I am adequately competent without them. (4%)
>
> They are certainly necessary but are presented so poorly that I do not bother to attend them. (5%)
>
> They are necessary, well presented, and beneficial to my practice. (70%)
>
> I do not wish to comment on this question, since I have not attended enough courses to make a fair judgment. (19%)"[51]

The following study was conducted under a contract from the Dental Health Section, State of Connecticut Department of Health. The title of the survey was, "Statistics--Continuing Education and Connecticut Dentists: A Questionnaire Survey."

Goals of the survey.--1) To determine to what extent dentists indicated a need for continuing education and to find out how interested they were in participating in continuing education programs, 2) to find out what the differences were between those who did not, 3) to study the previous experience of Connecticut

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[50]Ibid., p. 76.

[51]Ibid., p. 1043.

dentists with continuing education, 4) to compare those dentists who had taken continuing education courses with those who had not, and 5) to determine the specifics of how those dentists who were interested in taking courses would like the courses presented.[52]

Procedure.--A questionnaire was developed to cover the goals and the questionnaire was pre-tested on a sample of dentists in another state.[53]

The questionnaires were sent to all active dentists in Connecticut in December of 1966 with a supporting letter from the Chief of the Dental Section. A second mailing was sent to all dentists whose names were not checked.[54]

Of the 1,940 active dentists in Connecticut, 1,192 (61%) responded to one of the two mailings of the questionnaires. There were 758 (39%) respondents to the first mailing and 434 (22%) respondents to the second mailing.[55]

In analyzing the responses of the respondents, a clear pattern emerged concerning their desire for continuing education. Ninety-four per cent of the respondents felt that there was a need for continuing education; while only 3% felt there was no need; 3% did not answer this question. Eighty-nine per cent said they would be willing to participate in continuing education programs; 4% were not willing. Seven per cent did not answer this question.[56]

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[52]"Statistics--Continuing Education and Connecticut Dentists: A Questionnaire Survey," Journal of Connecticut State Dental Association, Vol. 43, No. 1 (1968), p. 29.

[53]Ibid., p. 29.

[54]Ibid.

[55]Ibid., p. 30.

[56]Ibid.

Those with previous continuing education experience were more willing to participate than those without such experience (95% versus 92%, which is statistically significant). It was also found that the first mailing respondents were more willing than the second mailing respondents to participate in continuing education programs (96% versus 92%, which is again significant).[57]

Those dentists who were younger, American Dental Association members, and specialists were more likely to respond to the questionnaire than older dentists, non-American Dental Association members, and general practitioners.[58]

Almost all of the respondents thought that there was a need for continuing education and that they would participate in continuing education programs. Eighty per cent of the respondents had taken at least one continuing education course. Those who had taken courses tended to have more advanced training, higher incomes, and to be less isolated by virtue of their association with other dentists and membership in the American Dental Association than respondents not taking courses.[59]

Dentists who wanted to take continuing education courses tended to prefer courses which would have immediate application in a general practice.[60]

Should continuing education become compulsory as a prerequisite for renewal of the dental license? Members of the Philadelphia County Dental Society discussed that question in detail at

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[57] Ibid.

[58] Ibid., p. 31.

[59] Ibid., p. 32.

[60] Ibid.

a conference entitled, "Continuing Education and Renewal of the Dental License." The conference was sponsored by the Society's Council on Dental Health and took place on March 5, 1969. Six panelists addressed the conference--three in favor of mandatory continuing dental education and three against. In addition to the panelists, there was dental historian Milton Asbell, who traced the background of dental licensure.[61]

The participants in the discussions that followed the presentation were invited guests who represented dental groups in the area and specialty groups: state board examiners from four surrounding states, officers and trustees of constituent societies, officers of component societies, members of dental hygienist and dental assistant groups, and dentist members of the Philadelphia Board of Health.[62]

A questionnaire was circulated and completed by participants and guests at the work conference. The form was filled out at 10 A.M. when the conference began and again toward the end of the meeting at 3 P.M. The majority of the respondents to the questionnaire favored compulsory continuing education and believed that organized dentistry on the constituent level should be responsible for the continuing education of the practitioner.[63]

It should be noted that in answer to the first question, the majority of the group favored compulsory continuing education

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[61]Emanual H. Malamed, "Continuing Education and Renewal of the Dental License: A Conference," Journal of the American Dental Association, Vol. 80 (February, 1970), p. 331.

[62]Ibid., p. 332.

[63]Ibid., p. 333.

Questionnaire circulated at work conference. The form was filled out when conference began and again at end of conference.[64]

Questionnaire	Results			
	10 A.M.		3 P.M.	
	% Yes	% No	% Yes	% No
Where do you stand?				
I favor compulsory continuing education	58	42	56	32
I favor voluntary continuing education	41	30	43	25
My source of continuing education:				
Continuing education courses	90	65	94	54
Scientific meetings	94	68	84	51
Reading of journals	79	57	77	44
Reading of textbooks	68	49	70	41
ADA package library	16	12	22	13
Where have you seen this statement? "Every dentist has the obligation of keeping his knowledge and skill freshened by continuing education through all of his professional life."				
Code of Ethics	68	49	85	49
Constitution	0.9	7	0.3	2
Other	26	19	17	10
Who shall assure that the dental practitioner engages in continuing education?				
Organized dentistry on the constituent (state) level	50	36	57	33
Organized dentistry on the component (county) level	48	35	49	28
State board of examiners	26	19	43	25
State board of health	0.2	2	0.1	1
The individual dentist	33	24	22	13
Total returns		72		57

[64] Ibid.

and that the views changed very little even when strong arguments were presented for voluntary continuing education.

In March, 1969, the Medical Foundation Incorporated with the support of six New England health departments and the cooperation of the six state dental societies conducted a study of continuing education of dentists in those states. The purpose of the study was to determine whether dentists wanted to participate in continuing education programs, how those dentists who wanted to participate differed from those who did not, what previous experience the dentists had with continuing education, how those dentists who had taken continuing education courses differed from those who had not, and the nature of program content and presentation desired by the dentists.[65]

A questionnaire was developed, pre-tested, and mailed to all active dentists in New England with a supporting letter from appropriate state dental society of state division of dental health. Of the 6,749 active dentists in the six states, 4, 114 (61%) responded. On a state-by-state basis, the total response rates ranged between 56% and 81%.[66]

Desire for continuing education.--Almost all (94%) of those responding to the questionnaire answered the question on willingness to participate in continuing education programs. Of those responding to this question, 94% indicated a willingness to participate.[67]

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[65]H. Wechsler, et. al., "Continuing Education and New England Dentists: A Questionnaire Survey," Journal of the American Dental Association, Vol. 78 (March, 1969), p. 573.

[66]Ibid. [67]Ibid.

On a state-by-state basis, the percentages of those willing to participate were: Connecticut--95%, Maine--92%, Massachusetts--94%, New Hampshire--94%, Rhode Island--96%, and Vermont--94%.[68]

The question about previous participation in continuing education was answered by 95% of the respondents. Of those answering this question, 77% had taken at least one continuing education course. A greater proportion of those respondents who had taken courses than those who had not indicated a willingness to participate in continuing education programs (95% versus 92%). All comparisons were analyzed by the chi-square statistic, with those who did not answer the question excluded. Differences are reported only in those instances where they reach the .05 level of statistical significance.[69]

Nature of continuing education interest of respondents.--Dentists who wanted to take continuing education courses tended to prefer courses which would have immediate application in a general practice. Almost all of the respondents said that they would participate in continuing education programs. Those who had not taken courses tended to attribute this to lack of time or distance to travel rather than to lack of interest or need.[70]

Most of the respondents to the questionnaire had taken at least one continuing education course. Those who had taken courses tended to have more advanced training, higher incomes, and to be less isolated by virtue of their association with other dentists and membership in the American Dental Association than respondents not

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[68]Ibid. [69]Ibid., p. 574 [70]Ibid., p. 575.

taking courses. In terms of these criteria, those who have taken continuing education courses may be considered to be less in need of them than those who have not.[71]

In August, 1969, the State University of New York at Buffalo School of Dentistry surveyed Western New York dental practitioners to gain insight into the effectiveness of the dental school's continuing education programs and to get suggestions about how to improve them.[72]

Procedure.--A mailed questionnaire with a letter of introduction, a postage-paid, self addressed envelope was sent to a random sample of half the almost 1,000 dentists in Western New York, an area including the counties of Erie, Niagara, Wyoming, Genesee, Allegany, Chautauqua, and Cattaraugus.[73]

It took six months to collect the data. Three-quarters of the active practitioners in the original sample responded. Over 90% of all the respondents had attended continuing education courses. Most of the respondents had taken three or more continuing education courses since graduating from dental school.[74]

When the respondents were asked about the importance of continuing education, almost all of them felt continuing education to be important for them "personally," 61% said continuing education was very important, 32% said fairly important, while 2%

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[71] Ibid.

[72] Edward Petit and Robert O'Shea, "Participation in Continuing Education in Western New York--Some Survey Results," New York State Dental Journal, Vol. 37 (October, 1971), p. 485.

[73] Ibid. [74] Ibid., 486.

indicated that continuing education was of no importance to them.[75]

The Ohio Dental Association held a Continuing Education Conference July 25-26, 1970 in Granville, Ohio. The conference was the result of a year and a half of planning. All Ohio component societies except two were represented by at least one conferee.

The theme of the conference: "Is it enough? Is the Principles of Ethics of the Ohio Dental Association a sufficient motivating force for Ohio dentists to continue their education? If not, then what action should be taken to assure continuing competency? What are the proper goals of continuing education? Should continuing education be tied to relicensure? Should it be mandatory or voluntary?"[76]

After the main conference, delegates assembled into three study groups to express opinions and draw conclusions. Generally, they agreed on several points: 1) The Ohio Dental Association should do something about continuing dental education. 2) Nearly all opposed legalistic or compulsory continuing education. 3) Most believed a voluntary program administered by the Ohio Dental Association would be beneficial. Coordination of the present continuing education delivery systems and greater correlation among programs presently available was urged. 4) Programs developed with reward mechanisms or merit systems were supported.

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[75]Ibid., p. 487.

[76]"Continuing Education Conference--Is This Enough?" Ohio Dental Journal (September, 1970), p. 320.

5) Some conferees supported linking Ohio Dental membership to a certain continuing education requirement though the sentiment was not great.[77]

Other comments of importance made in the study groups: 1) To equate any degree of competency with participation in post-graduate courses is very difficult. The majority believed that such post-graduate courses would enhance the individual's knowledge even though a standard couldn't be applied to measure the value derived. 2) The groups believed that any laws concerning a mandatory continuing education requirement as a prerequisite to relicensure would be difficult to enforce. Once delegate cited an Oregon attorney's opinion that a landslide of legal suits would be brought to any state administrative agency trying to enforce such a law. These repercussions would undoubtedly be costly to the state agency and have a far reaching effect toward repeal of the law. 3) Delegates believed tying compulsory continuing education to state dental society membership unwise. Since about 10% of Ohio's dentists aren't Ohio Dental Association members, they wouldn't be bound by any regulations established by the association. The need to motivate people to want what they need was emphasized and finally the delegates were 100% in favor of continuing education.[78]

The following preliminary report of the Ohio Dental Association Continuing Education Survey was presented:

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[77]Ibid., p. 325. [78]Ibid.

Statistical report of component society membership response to the 1970 Continuing Education Survey, conducted in Ohio by the Ohio Dental Association's Committee on Continuing Education,

Total Membership Ohio Dental Association--4,407
Total Response (July 25, 1970)--2,210

Questions in the survey germane to this study:

5. Do you feel it is necessary to make continuing education compulsory? Yes--26%; No--69%

6. Do you feel that voluntary continuing education satisfies your needs? Yes--93%; No--5%

   Does voluntary continuing education satisfy the needs of the whole profession? Yes--45%; No--40%

7. If a continuing education program were imposed on Ohio dentists, who would you rather have sponsor and direct such a program?

   (a) The State Dental Board--11%
   (b) The State Department of Health--1%
   (c) The State Welfare Department--0%
   (d) The Federal Government--1%
   (e) Organized Dentistry--80%

8. Do you believe dentists should be re-examined periodically in order to qualify for relicensure? Yes--12%; No--84%

   (a) Would you object to re-examination? Yes--12%; No--38%
   (b) If you object, would you be willing to carry your fight to court? Yes--41%; No--19%

9. Have you participated in some form of continuing education during the past 12 months? Yes--89%; No--9%[79]

In the spring of 1971, a workshop was held in Alabama to study dental professional development in that state. Speakers from all over the country were invited to address the issues: voluntary continuing education and mandatory continuing education. At the end of the workshop, a recommendation was made that Alabama

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[79]"Continuing Education Conference--Is This Enough?" Ohio Dental Journal (September, 1970), pp. 322-323.

not favor requiring mandatory continuing education but that a suggested plan for voluntary continuing education be established for dentists in the state.[80]

The recommendation was adopted by the House of Delegates of the Alabama Dental Association and the Council on Dental Education and Licensure was charged with the responsibility of implementing such a plan. (Alabama elected to follow Mississippi's Volunteer Plan.)[81]

Continuing Dental Education--Summary

This section has traced the separation of dentistry from medical education. A review of the literature shows the American Dental Society via its code of ethics has long recognized the need for a 'lifetime of learning.'

This investigation has shown that continuing dental education as it is now constituted, developed after World War II in response to the expressed needs of dentists returning from their tour of duty.

The 1964 Workshop of Dental Examiners and Educators provided the first real forum for the discussion of mandatory continuing education for dentists. Two years later, the State of New York mandated continuing education for practitioners participating in Medicaid.

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[80]Kirby Walker, Jr., "A Possible Solution to Our Continuing Education Dilemma," Journal of the Mississippi Dental Association, Vol. 28 (May, 1972), p. 26.

[81]Ibid.

Before 1969, continuing education was not required for relicensure or for maintaining membership in any state society. By 1977, eight states required continuing education for relicensure and twenty-six states were considering such a requirement. Eight societies required continuing education for membership and thirty had voluntary systems.

Finally, this investigator discussed some attitudinal surveys about continuing education (elective and mandatory). An analysis of these surveys shows that most dental practitioners agree that continuing education is necessary if they are to keep up with advances in dental research and incorporate new technics in their practice.

Elective Continuing Legal Education

A review of the literature shows that elective continuing legal education, which is quite common today, began in an aura of relative obscurity.[82] Absence of a national organization designed to promote such programs fostered this environment. State and local bar associations had very little interest in their members' continuing education. What activity that did occur did so on a local level.

On August 31, 1878, the American Bar Association (ABA) was organized at Saratoga Springs, New York, in a meeting which had a rather small number of lawyers in attendance. Although the

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[82]The 1975-76 Fall/Winter CLE Catalog shows there were 424 scheduled and 138 proposed continuing legal education programs reported in the United States.

membership continued small for a number of years, the Association was very influential. This was so because the membership was composed of prominent attorneys "who came from widely separated geographical areas."[83] One of the original purposes of the ABA was the improvement of legal education and admissions to the bar. The first constitution of the American Bar Association provided for a Committee (now Section) on Legal Education and Admission to the Bar.[84] Its main attention was focused on practical legal education leaving continuing legal education to local bar associations and to the law schools. These two groups shifted the burden to the practitioner.[85]

The first formal continuing legal education program was sponsored by the New York University School of Law in 1891.[86] Its purpose was to supplement the course of study for the LL.B.

Although the ABA Section of Legal Education and Admissions to the Bar had been established in 1893, it was not until the late 1930's that the Section itself engaged in any significant continuing legal education activities.[87]

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[83]Edson R. Sunderland, History of the American Bar Association and Its Work (Ann Arbor: Reginald H. Smith, 1953), pp. 3-13.

[84]Russell N. Sullivan, "The Professional Associations and Legal Education," Journal of Legal Education, Vol. 4 (1951-52),p.401.

[85]Ibid.

[86]Norris Darrell, "The Role of the Universities in Continuing Professional Education," Ohio State Law Journal, Vol. 32 (1971), p. 312.

[87]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 503.

In 1916, the New York City Bar conducted review courses for its members.[88] These courses consisted of a series of lectures for the benefit of the general practitioner. The courses were successful and except for a hiatus during World War I, continued into the 1930's.[89]

The Lawyers Chatauqua was founded in Emmetsburg, Iowa, July, 1924. It was sponsored by the District Bar Association of the Fourteenth Judicial District. The three-day program included round table discussion of evidence and pleading and the effectiveness of court proceedings.[90]

The Minnesota State Bar Association formed a committee on professional techniques in 1929. The purpose of this committee was to arrange meetings of local bar associations to discuss legal problems.[91]

The institutionalization of formal programs in continuing legal education in the United States seems to have begun in the early 1930's under the direction of Mr. Harold P. Seligson, in what was to become the Practising Law Institute (PLI) of New York.

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[88]"Once You're In: Maintaining Competence in the Bar," Nebraska Law Review, Vol. 56, No. 3 (1977), p. 679.

[89]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 502.

[90]Burt J. Thompson, "Legal Institutes for Every Local Lawyer," Indiana Law Journal, Vol. 15, No. 36 (1939), pp. 45-46.

[91]Task Force on Mandatory Continuing Legal Education in Ohio, Report of the Task Force, MCLE: The Rule Against Perpetuity--A Survey Research and Comparative Approach (Ohio Northern University Law Review, Vol. 3, No. 4A, 1976), p. 929.

Although a series of lectures was given by Dean Roscoe Pound, under the auspices of the Cleveland Bar Association in 1931, Mr. Seligson is generally credited with the institutionalization of Continuing Legal Education.[92]

Mr. Seligson introduced the Practising Law courses because he realized the need for some mechanism to bridge the gap between theory and the practical aspects of the law. The initial session of these courses consisted of sixteen (16) lectures given by four (4) lawyers and was attended by fifteen (15) recent graduates.[93]

During this same time period, the state bars of Minnesota and Wisconsin also developed successful well-attended Continuing Legal Education Programs.[94] The Minnesota Bar established the Committee on Legal Clinics. The purpose of these clinics was to foster a closer bond among attorneys and to provide professional aid and information. By 1934, the Committee had programs in fifteen (15) judicial districts.

In 1931, the Cleveland Institutes were initiated by Walter L. Flory. The program was so successful that the Cleveland Bar Association continued it and by 1938, eleven (11) series of

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[92]Neil Gold, "Continuing Legal Education: A New Direction," Ottawa Law Review, Vol. 7:62 (Winter, 1975), p. 65.

[93]Harold P. Seligson, "Post-Admission Education for Lawyers," American Bar Association Journal, Vol. 22 (1936), p. 231.

[94]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 503.

lectures were held with 400 to 600 attorneys present at each one.[95] Dean Roscoe Pound was the lecturer when the series was launched in 1931.[96]

It wasn't until 1936 at the 59th Annual Meeting in Boston, of the American Bar Association that the ABA showed any interest in Continuing Legal Education (CLE). In its 1937 report, the Section of Legal Education of the ABA recommended that the ABA sponsor and encourage a nationwide program of post-admission legal education for the benefit of the legal profession.[97] Between 1937 and 1940, the ABA aided a large number of state and local bars in the presentation of well-attended programs. During this period, Herbert Wenig, a young San Francisco practitioner, prompted the Stanford Law Society to conduct a lecture series similar to Seligson's. This suggestion was implemented on March 3, 1937.[98]

"The introduction in 1938 of the Federal Rules of Civil Procedure (Rules) gave impetus to the Continuing Legal Education movement. The ABA Section of Legal Education and Admissions to

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[95]Walter L. Flory, "Concerning Law Institutes--Their Organization and Purpose," American Bar Association Journal, Vol. 24 (1938), p. 829.

[96]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 502.

[97]Task Force on Mandatory Continuing Legal Education in Ohio, Report of the Task Force, MCLE: The Rule Against Perpetuity--A Survey Research and Comparative Approach (Ohio Northern University Law Review, Vol. 3, No. 4A (1976), p. 931.

[98]Hon. Maurice T. Dooling, Jr., "The Stanford Law Society's Experiment in Post-Graduate Instruction for Lawyers," California Bar Journal, Vol. 12 (1937), p. 109.

the Bar and the School of Law at Case Western Reserve University sponsored a three-day program on the Rules prior to the ABA Annual Meeting in Cleveland."[99] The ABA also sponsored institutes on the Rules in Washington, D.C. and New York City. The programs were so well received, that over twenty (20) cities held lectures on that topic alone in subsequent months.

During the year 1938, the Illinois and Missouri Bar Association together with their law schools arranged local bar association continuing education speaker programs. Other law associations began to follow suit: Buffalo, Chicago, Philadelphia, Los Angeles, and Toledo.

Continuing Legal Education received its biggest boost after World War II when attorneys began returning to their practices from the armed forces and needed to refresh their skills and be updated on interim developments. The American Bar Association (ABA) cooperated with the Practising Law Institute (PLI) in presenting these courses. By mid-1945, the PLI had organized courses in twenty-four states and had planned them in ten more.[100]

In 1947, the ABA entered into a Memorandum of Understanding with the American Law Institute (ALI) pursuant to which the Committee on Continuing Legal Education of the ALI with representation

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[99]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 503.

[100]Neil Gold, "Continuing Legal Education: A New Direction," Ottawa Law Review, Vol. 7:62 (Winter, 1975), p. 66.

by the ABA was created.[101] The Committee was formed to develop a national program for Continuing Legal Education and to aid in the creation of local programs in all parts of the United States.[102]

In 1958, the Committee was re-named the ALI-ABA Joint Committee on Continuing Legal Education, and in 1974, it was changed to the ALI-ABA Committee on Continuing Professional Education.[103]

The three most significant contributions made by the Committee was its sponsorship of three national conferences on continuing legal education in 1958, 1963, and 1967.*

The Illinois State Bar Association, through its Sections, sponsored many continuing legal education programs in the late 1940's and during the 1950's. The first of these were offered as refresher courses for returning veterans of World War II.[104]

As a result of this experience, the Illinois State Bar Association concluded that practitioners of all ages and at all levels of experience wanted continuing legal education on a

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* 1958 Arden House I, Harriman, New York; 1963 Arden House II, Harriman, New York; 1967 Conference on Continuing Legal Education and the Law Schools, Washington, D.C.

[101]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 504.

[102]Hon. Maurice T. Dooling, Jr., "The Stanford Law Society's Experiment in Post-Graduate Instruction for Lawyers," California Bar Journal, Vol. 12 (1937), p. 109.

[103]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 502.

[104]George A. M. Heroux, "The Institute on Continuing Education of the Illinois Bar: What's it all About," Illinois Bar Journal (January, 1968), p. 358.

permanent basis given locally at times and places convenient to them. This presented a problem for the bar. In order to deal with the problem, the State Bar Association decided to establish a separate entity to do such things as planning, financing, organizing, and presenting programs. On November 24, 1961, the Institute on Continuing Education of the Illinois Bar was established by Article VI of the by-laws of the Illinois State Bar Association Foundation. (Shortly after, this organization was re-named the Illinois Bar Foundation.)[105]

The first national conference dealing with the issue of continuing legal education was held at Arden House in Harriman, New York, December 16-19, 1958.

The purpose of this conference was to share the experiences of states and institutions with developed continuing legal education programs, analyze the status of continuing legal education, formulate future programs, and devise a method for rapid implementation of these future programs.

Conclusions reached at Arden House I included allocating the responsibility for continuing legal education in each state to its bar association. This responsibility included encouragement and coordination of the activities of the bar, the law schools, and other groups in each state.[106]

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[105]George A. M. Heroux, "The Institute on Continuing Education of the Illinois Bar: What's it all About," Illinois Bar Journal (January, 1968), p. 358.

[106]Paul Wolkin, "Annual Report ALI-ABA Committee on Continuing Professional Education," Part VI of a six-part article, ALI-ABA/CLE Review, Vol. 6, No. 34 (August 29, 1975), p. 4.

In 1960, the Association of Continuing Legal Education Administrators (ACLEA) was formed to study more efficient means by which continuing legal education programs could be effected. By 1975, the membership of ACLEA numbered over sixty (60) and came from thirty-nine (39) different states.[107]

In 1963, the Second National Conference on Continuing Legal Education was held at Arden House, and was called Arden House II. The topic of the conference, "Continuing Legal Education and the Law Schools." The focus of the conference was improving the quality and expanding the reach of Continuing Legal Education Programs. Two needs were emphasized: (1) providing law school graduates with practical skills and (2) coordinating the numerous organizations offering Continuing Legal Education Programs.[108]

The primary conclusion reached at this conference was that the responsibility for continuing education was basically on the organized bar but that the law schools had an important contribution to make. The law schools, in fact, had an obligation to assist in continuing legal education.[109]

On May 20 and 21, 1967, the Third National Conference on Continuing Legal Education was held at the Mayflower Hotel in Washington, D.C. The central theme of the conference was how to

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[107]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 505.

[108]Ibid.

[109]Paul Wolkin, "Annual Report ALI-ABA Committee on Continuing Professional Education," Part VI of a six-part article, ALI-ABA/CLE Review, Vol. 6, No. 34 (August 29, 1975), p. 4.

assure quality in continuing legal education programs. Representatives of all major bar associations and all other groups active in continuing legal education attended the conference.

> "The combined summary of views of the conference stated in part: There is, however, too little understanding of the fact that no lawyer adequately fulfills his role in society unless he continues his legal education throughout his entire professional career. To this end, the entire legal profession, including the organized bar, the law schools, and other groups with specialized interests should constantly seek new ways to promote continuing legal education of high quality."[110]

> "Greater interest and involvement in continuing legal education by members of law school faculties would also help to improve the quality of continuing legal education. Law schools should devote more concern and recognition to continuing legal education. Accordingly, every effort should be made by all interested organizations to encourage greater interest and involvement by law schools and their faculties."[111]

December 13, 1968, the Institute for Continuing Legal Education came into being. It was an outgrowth of the Institute on Continuing Education of the Illinois Bar which began in 1961.

The Institute is now one of the best known and most successful continuing legal education organizations in the United States. Its rapid growth can be attributed directly to: (1) the excellent cooperation of Illinois lawyers in serving as course lecturers, as practice handbook authors and editors, and as planning committee members, (2) the reception of continuing legal

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[110]Association of American Law Schools Programs and Proceedings, "Report of the Committee on Continuing Legal Education," Vol. 67 (Association of American Law Schools Programs and Proceedings, 1968), p. 15.

[111]Ibid.

education as a necessary concept by the Illinois Bar in general.[112]

On January 1, 1975, under the aegis of the Standing Committee on Continuing Education of the Bar, the American Bar Association established the new staff, Division of Professional Education for implementation of American Bar Association--Continuing Legal Education Activities. The Division of Professional Education staff took responsibility for the National Institutes program.[113]

Mandatory Continuing Legal Education

A review of the literature shows that one of the purposes of continuing legal education is that it should offer an opportunity for a broadening of the professional base.

In 1971, the California Legislature adopted a resolution requesting the California Bar to develop and submit a program for maintaining continuing professional competence.[114]

In 1972, a mandatory system for continuing education was recommended to the Kansas Bar Association by its Continuing Legal Education Committee.[115]

A proposal for mandatory continuing legal education was written by the Minnesota State Bar Association. Another report

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[112]George A. M. Heroux, "The Responsible Lawyer's Responsibility: Continuing Legal Education," Chicago Bar Record, Vol. 51 (December, 1969), pp. 155-156.

[113]Herschel H. Friday, "Continuing Legal Education: Historical Background, Recent Developments and the Future," St. John's Law Review, Vol. 50:502 (1976), p. 509.

[114]"Mandatory Continuing Legal Education," Michigan State Bar Journal, Vol. 54 (October, 1975).

[115]Ibid.

recommending mandatory continuing legal education was discussed at meetings throughout the state from 1972 to 1974. The idea won the support of the bar. Formal approval of the plan by the Minnesota Supreme Court was announced in an order issued by the Court on April 3, 1975. Minnesota's Plan required evidence of forty-five hours of formal course work every three years.[116]

Earlier in 1975, the Iowa Supreme Court requested comments from members of the legal profession by March 11, 1975 on a rule of the court providing for a system of compulsory continuing legal education. The rule was adopted by the court and an order was issued on April 9, 1975.

At the same time, compulsory continuing legal education plan was submitted to the Wisconsin Supreme Court by the board of governors of the State Bar Association of Wisconsin.[117]

Between May and August, 1975, mandatory continuing legal education proposals were before the State Supreme Court in Washington and the governing bodies in Alabama, Colorado, Idaho, Maryland, and Nebraska.[118]

At the same time, Bar Associations in Arizona, Georgia, Illinois, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Missouri, New Mexico, New York, North Carolina, Oklahoma, Oregon, South Dakota, and Texas were studying the feasibility of mandatory continuing legal education.[119]

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[116] Ibid. [117] Ibid.

[118] ALI-ABA Catalog of Continuing Legal Education Programs in the United States (Spring/Summer Supplement, 1975), p. 52.

[119] Ibid.

The only jurisdictions that had failed to report any action by September, 1975 were: Alaska, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Indiana, Maine, Mississippi, Montana, Nevada, New Hampshire, New Jersey, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Virginia, West Virginia, and Wyoming.[120]

Most mandatory continuing legal education plans include the following elements: (1) Each lawyer is required to report in writing, to a supervisory agency, hours of formal course work in continuing legal education. (2) The state board of continuing legal education, which supervises the program, is approved by that state's supreme court. (This board may have lay as well as professional representation.) (3) A state administrative director of continuing legal education administers the program. (4) Cost of the program is usually passed on to each lawyer via the license fee. (5) The penalty for failure to fulfill the mandatory requirements may be probationary status and ultimately suspension from practice.[121]

The Fourth National Conference on Continuing Legal Education was held at the American Bar Center in Chicago on November 10-12, 1975. At this conference, judges, teachers, lawyers, administrators, and others interested in Continuing Legal Education Programs reviewed the considerations which prompted the Minnesota

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[120]Ibid.

[121]"Mandatory Continuing Legal Education," Michigan State Bar Journal, Vol. 54 (October, 1975), pp. 796-797.

program of mandatory continuing legal education (45 hours every 3 years) and the prospects for the spread and success of such programs.[122]

January 1, 1976, Iowa's Mandatory Continuing Legal Education Program came into effect.[123]

Wisconsin's mandatory plan, effective in January, 1977, was approved by the State Supreme Court, the Bar's Board of Governors and a vote of the Bar's membership.[124]

By the end of 1977, the following states had mandatory continuing legal education: California, Florida, Iowa, Minnesota, Texas, Washington, and Wisconsin.[125]

The original impetus for Continuing Legal Education came from within the legal profession. The growth of the movement as traced through this brief review demonstrates the need for continuing legal education. The following section will look at attitudes, as expressed in surveys, toward continuing legal education.

Continuing Legal Education--Professional Attitudes

A review of continuing legal education literature shows

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[122]John P. Byron, "Mandatory Continuing Legal Education in Minnesota: The First Year," St. John's Law Review, Vol. 50:512 (1976), p. 513.

[123]"Once You're In: Maintaining Competence in the Bar," Nebraska Law Review, Vol. 56, No. 3 (1977), p. 680.

[124]Paul A. Wolkin, "On Improving the Quality of Lawyering," St. John's Law Review, Vol. 50:523 (1976), p. 526.

[125]Beverly T. Watkins, "Certification of Professionals: A Bonanza for Extension Programs," The Chronicle of Higher Education, April 11, 1977.

only three in-depth empirical studies of formalized post-graduate education at the national level and three at the state level. Additionally, three local bar associations sent questionnaires to attorneys within their jurisdictions.

The three national surveys were conducted in 1961 by S. Herbert Unterberger, in 1971 by Professors Burt A. Leete and Stephen E. Loeb, and in 1976, an update of the 1961 report by Unterberger.

The most significant surveys conducted by state bar associations were in Illinois (1975), Ohio (1976), and Kentucky (1977).

The other state bar associations polling their members were Iowa, Wisconsin, and Nebraska.[126]

Although the Joint Committee on Continuing Legal Education was aware of the rapid expansion and the diversity of continuing legal education efforts, the Joint Committee felt the need for determining more quantitatively, the usefulness and effectiveness of programs and publications. The Joint Committee wanted to know the extent to which members of the bar were aware of the resources available to them, their use of these resources and their subjective attitudes toward them. The Unterberger survey was designed to supply the required quantitative measurements.[127]

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[126]Task Force on Mandatory Continuing Legal Education in Ohio, Report of the Task Force, MCLE: The Rule Against Perpetuity--A Survey Research and Comparative Approach (Ohio Northern University Law Review, Vol. 3, No. 4A, 1976), p. 921.

[127]S. Herbert Unterberger, "The Lawyer's View of Continuing Legal Education," The Practical Lawyer, Vol. 10, No. 2 (February, 1964), p. 4.

A survey questionnaire was sent to a randomly selected national sample of attorneys drawn from the 1961 edition of the Martindale-Hubbell Law Directory.* This landmark survey revealed that attorneys were aware of and were attending Joint Committee-fostered continuing education programs.[128]

Unterberger and the Joint Committee** was pleased with the large response to the survey and with the number of respondents who supplied supplementary comments.[129]

The results of this study enabled the Joint Committee and other continuing legal education organizations to plan future programs and publications.[130] The study by Unterberger was presented at the Arden House II Conference.

The second empirical study, the first dealing with mandatory continuing legal education was conducted by Burt A. Leete, J.D. (Associate Professor, College of Business and Management, University of Maryland) and Stephen E. Loeb, Ph.D., C.P.A. (Associate Professor, College of Business and Management, University of Maryland).

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* Martindale-Hubbell Law Directory. Individual alphabetical listings which are published without charge or other obligation, include not only lawyers admitted and located at the particular place, but also who are there although not admitted to the Bar of that jurisdiction. In the case of the latter, the fact of non-admission shows as is the State of first admission.

**The Joint Committee on Continuing Legal Education of the American Law Institute and the American Bar Association.

[128] Ibid. [129] Ibid.

[130] "Once You're In: Maintaining Competence in the Bar," Nebraska Law Review, Vol. 56, No. 3 (1977), p. 921.

> "In order to evaluate the feelings of attorneys toward compulsory continuing legal education, a questionnaire was sent to 400 attorneys picked at random from the 1971 edition of the Martindale-Hubbell Law Directory. The sampling was done in such a manner that, without sacrificing randomness, only members in private practice were selected. Responses from individuals who indicated that they were not in private practice were excluded. As a result, 209 usable responses were received and included in the study, a usable response rate of approximately 52%."[131]

Results.--Each person was asked if he felt an attorney should be required to demonstrate that he is continuing his professional education; 56% of those responding did not favor such a proposal. However, a substantial minority, 43.5% favored required continuing education; 0.5% gave no answer. Based on this sample, there would not appear to be a substantial consensus on this issue.[132]

Conclusions.--The data gathered as a result of this survey indicates no consensus in the legal profession on mandatory continuing legal education. Consequently, Leete and Loeb state that it is not possible to make any positive recommendation at this time.[133]

With the initiation of the discussion of mandatory continuing legal education, it appeared that state bar associations would enter the continuing legal education survey field using these two studies as benchmarks for further problem analysis. Generally though, the bar associations in those states which have adopted mandatory

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[131]Burt A. Leete and Stephen E. Loeb, "Continuing Legal Education--Should it be Compulsory," Journal of Legal Education, Vol. 27, No. 1 (1975), p. 112.

[132]Ibid. [133]Ibid., p. 115.

continuing legal education plans have made only minimal contributions to the continuing legal education literature.[134]

In October, 1974, the Iowa Bar mailed a cursory ten-question survey to all the attorneys in the state. The survey instrument was patterned after the Leete and Loeb questionnaire.[135]

A survey was not conducted in Minnesota; the concept was ratified by an almost unanimous vote at the 1974 State Bar Association Annual Convention.[136] The State Bar of Wisconsin conducted a simple "Yes-No" referendum of the attorneys in the state. The question on the referendum was:

> "Should rules be adopted establishing a program of compulsory education for all active lawyers licensed to practice law in Wisconsin, with the exeption of lawyers who are judges (who will have their own compulsory program) and those lawyers who attain the age of seventy?"[137]

The results were: Yes--72%, No--28%.

In 1975, the Illinois Bar conducted a survey among its members to see how they felt about mandatory continuing legal education. This survey was a significant addition to the Mandatory Continuing Legal Education survey research, although only one question in the survey dealt specifically with mandatory continuing legal education.[138]

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[134] Task Force on Mandatory Continuing Legal Education in Ohio, Report of the Task Force, MCLE: The Rule Against Perpetuity--A Survey Research and Comparative Approach (Ohio Northern University Law Review, Vol. 3, No. 4A, 1976), p. 922.

[135] Ibid.

[136] Ibid.

[137] Ibid., p. 923, 1051

[138] Ibid., p. 933.

The Illinois attorneys responding to the survey indicated that a slight majority, 52%, favored making continuing legal education mandatory. While those favoring mandatory continuing legal education were only slight higher, some characteristics could be noted among those opposing the adoption of a mandatory system. Those opposed to mandatory continuing legal education were also likely to oppose formal specialization.

Attorneys associated with large firms, admitted to practice over 20 years and earning in excess of $90,000 were also likely to be against adoption of mandatory continuing legal education.[139]

Early in 1976, a second national survey was conducted by S. Herbert Unterberger.* The purpose of this survey was (1) to bring some of the early data up-to-date and trace changes in attitudes over the intervening thirteen years and (2) provide more detailed information on attendance at continuing legal education programs and their evaluation as well as on other matters of interest (such as the extent to which lawyers read legal publications, their use and reaction to recorded self-education materials, their preference among current proposed methods for assuring the competency of lawyers, and their views on according formal recognition to specialization).[140]

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* Professor of Economics, Lehigh University, Bethlehem, Pennsylvania.

[139]Illinois State Bar Association, "Economics of Legal Services in Illinois--A Special Bar Survey," Illinois Bar Journal, Vol. 54 (1975), pp. 81-85, 102-110, 127-134.

[140]S. Herbert Unterberger, "The Lawyer's View 1976 Continuing Legal Education," The Practical Lawyer, Vol. 22 (Oct. 1976),p.71.

Questionnaires were sent to a statistically selected sample of 7,500 lawyers listed in the Martindale-Hubbell Law Directory and to all of the approximately 2,000 members of the American Law Institute. The results are summarized below, which indicates the percentage of respondents agreeing with the following statements.[141]

	All respondents	ABA member respondents	ALI respondents
To assure that lawyers are competent, there should be			
1. an expanded program of continuing legal education on a voluntary basis	55.7	53.0	54.1
2. a monitoring system to deal with incompetent lawyers	20.9	24.8	21.1
3. a system of periodic license renewal conditioned on			
a. mandatory attendance at continuing legal education programs	26.2	23.0	28.1
b. successful written examinations	3.9	6.2	4.5
c. other requirements	3.9	3.9	3.3
Specialization: Specialization should be recognized formally. Those who favored formal recognition believed that			
a. self-designation of specialties should suffice	69.2	70.4	71.3
b. examination should be required for certification	64.0	66.9	65.4
c. recertification should depend on			
1. evidence of continuing self-education	46.7	47.3	46.1
2. mandatory attendance at continuing legal education courses related to specialty	40.5	34.4	42.2
3. examination	17.5	22.0	16.6

In some cases, the total response exceeds 100 per cent because some respondents favored several possibilities.

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[141]"Once You're In: Maintaining Competence in the Bar," Nebraska Law Review, Vol. 56, No. 3 (1977), p. 677.

> Summary and conclusions germane to this study: "The principal method favored to assure lawyers' competency was the use of expanded CLE programs on a voluntary basis. A much smaller proportion favored periodic license renewal based on mandatory attendance at CLE programs and a monitoring system."[142]

A very small proportion favored periodic license renewal based on written examination. However, lawyers located in states where continuing legal education was mandatory found it to be "more acceptable and preferable than lawyers located in states where it is not the case."[143]

In April, 1976, the Nebraska State Bar Association polled their membership by ballot. The members were asked to respond to the following statements:

(1) I favor required continuing legal education.

(2) I am not in favor of continuing legal education.

Bar Association members were instructed to return the ballot no later than April 1, 1976. The Nebraska result evidenced strong support for mandatory continuing legal education.[144]

In an effort to fill the void in mandatory continuing legal education literature, the Task Force on Mandatory Continuing Legal Education in Ohio undertook this project. Its survey instrument and the resulting report are the first of its scope and nature devoted entirely to the mandatory continuing education of attorneys.[145]

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[142] Ibid., p. 103

[143] Ibid.

[144] Ibid., p. 923.

[145] Ibid.

A survey research approach together with a comparative analysis of existing and future mandatory continuing legal education plans and proposals, as well as those mandatory continuing education plans operative in other professional and non-professional fields was selected as the study vehicle.

Eight hundred and ninety-six members (896) of the Ohio Bar Association, statistically selected out of a total membership of 13,000 attorneys, were mailed the survey instrument. The survey instrument consisted of thirty-one Likert scale, forced multiple choice, open-ended and ranking questions.[146] Completed usable survey questionnaires were received from 361 respondents out of 896 questionnaires mailed to members of the Ohio State Bar Association yielding a 40.3% response rate. The Task Force received a total of 366 surveys. Five were disqualified; three received after the deadline date, February 1, 1976, and two were returned without answers.[147] The report is over 200 pages long.

Major survey results of the study.--Ohio attorneys do not seem to follow the trend of previous surveys: 46.2% of Ohio attorneys desired implementation of a Mandatory Continuing Education Plan; 53.0% opposed such a plan and half of those who opposed mandatory continuing legal education responded, "Strongly Disagree."[148]

The October, 1977 issue of Kentucky Bench and Bar* issued a special report to its members. The report was titled, "1977

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* Kentucky State Bar Journal.

[146]Ibid., pp. 925-926. [147]Ibid. [148]Ibid., p. 957.

Economic and Opinion Survey."

The survey addresses " . . . current economic and legal issues. It is a tool designed to provide information for various forms of law practices in Kentucky."[149] In all practicality, it gives the lawyer a current perspective of today's problems and trends. Thirty-seven point five per cent (37.5%) of the surveys were returned, thereby lending credence to the survey's reliability and validity.[150]

The part of the survey germane to this study, "Membership Opinion," deals with the " . . . very controversial issue of requiring lawyers to obtain a certain number of hours of continuing legal education each year to retain their law licenses. An amazing 58% favored this program, while 41% opposed."[151] Of those in favor, 12% were young lawyers admitted to the bar about two years.

In Tables 31 and 32, one can note the opposite opinions as stated by the private practitioner and combined practitioner for mandatory continuing legal education programs. It would seem that for each, their response would be just the opposite (pages 66 and 67).

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[149]Leslie G. Whitmer, Director-Editor, Kentucky Bar Association, "1977 Economic and Opinion Survey," Kentucky Bench and Bar, Vol. 4 (October, 1977), pp. ii-xx.

[150]Ibid., p. iv. (Five thousand and thirty-six (5,036) surveys were mailed to in-state lawyers; 1,895 or 37.5% were returned; 9 surveys were eliminated because of their arrival after the deadline.)

[151]Ibid., p. xv.

TABLE 30. --Attitudes toward continuing legal education by cities in which these attorneys practiced.

	Over 200,000	200-100,000	99-40,000	39-10,000	Below 9,999	Total
Yes	24%	5%	5%	12%	12%	58%
No	14%	4%	4%	9%	10%	41%

Source: Leslie G. Whitmer, Director-Editor, Kentucky Bar Association, "1977 Economic and Opinion Survey," Kentucky Bench and Bar, Vol. 4 (October, 1977), p. xv.

TABLE 31. --Opinion on mandatory continuing legal education by years in bar for combined practice/legal occupation.

Years	Yes	No
2	4%	10%
4	4%	8%
6	4%	5%
8	3%	6%
10	4%	6%
15	5%	9%
20	4%	4%
25	3%	2%
30	5%	5%
35	--	1%
40	1%	--
45	--	--
50	--	--
Total	37%	56%

Source: Leslie G. Whitmer, Director-Editor, Kentucky Bar Association, "1977 Economic and Opinion Survey," Kentucky Bench and Bar, Vol. 4 (October, 1977), p. xvi.

TABLE 32. --Opinion on mandatory continuing legal education by years in bar for private practitioners

Years	Yes	No
2	9%	6%
4	8%	4%
6	4%	4%
8	5%	3%
10	6%	3%
15	5%	4%
20	5%	3%
25	5%	3%
30	4%	4%
35	1%	1%
40	3%	2%
45	1%	1%
50	--	--
Total	56%	38%

Source: Leslie G. Whitmer, Director-Editor, Kentucky Bar Association, "1977 Economic and Opinion Survey," Kentucky Bench and Bar, Vol. 4 (October, 1977), p. xvi.

Summary results of surveys discussed in this section.

Name of Survey	Response Toward Mandatory Continuing Legal Education		
	Non-supportive	Favorable	Opposed
Leete and Loeb Study (national survey, 1971)	56%		
Iowa State Bar (1974)		X	
Minnesota State Bar (1974)		A survey was not conducted; the concept was ratified at the 1974 Annual Bar Convention.	
Wisconsin State Bar (1974)		72%	
Illinois State Bar (1974)		52%	
Nebraska State Bar Association (1976)		Membership polled by ballot--strong support	
Ohio State Bar (1976)			53.0% opposed; ½ of these opposed responded, "Strongly Disagree"
Kentucky State Bar Association (1977		58%	

Continuing Legal Education--Summary

This section has traced the history of continuing legal education. It has shown that the developments in continuing legal education had its origins outside the university setting and that what activity that did occur came from the local bar associations.

Attorneys returning to practice after World War II found themselves out-of-date, the need to bring these attorneys up-to-date was the biggest single push for a national continuing legal education program.

As the legal profession continued to examine itself, it reached some of the same conclusions earlier professionals had stated, the main one being, that law school was just the beginning of the lawyer's education and that it simply did not prepare the attorney for life.

The need to bridge the gap between theory and the practical aspects of the law has caused the legal profession to look at mandatory continuing legal education as well as voluntary continuing legal education as solutions to the problems of professional obsolescence. An analysis of lawyers' attitudes about continuing professional education (voluntary and mandatory) showed that most lawyers favored the concept.

Some state bar associations have made continuing legal education a requirement for membership. In other states, it has been the legislature which has made continuing legal education a requirement for everyone.

Elective Continuing Medical Education

Only in recent years has there appeared any volume of literature on continuing education, although some eminent early professional leaders such as Flexner and Osler believed and demonstrated by their lives that physicians should be lifelong students and that the profession should be supportive to such a life style.

Dr. Milford O. Rouse echoed the same sentiment almost sixty years later: "The true physician is a student as long as he accepts the responsibility of practicing medicine. Even if the store of medical knowledge were not doubling every ten years--as has been estimated--it would be impossible for any human brain to absorb and retrieve all of the scientific knowledge requisite for the "complete" practice of medicine. The physician, therefore, learns the essentials or fundamentals of medicine and where to go for special information, and then relies on this judgment and his sincere desire to "keep up" to enable him to continue to meet faithfully his obligation in handling the problems of health of his fellow citizens."[152]

Medical licensure in the United States began in the late 1700's as a legal responsibility of each state, but with actual licensing power in the hands of local or state medical societies.[153]

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[152]Milford O. Rouse, "The Physician as a Lifelong Student," Michigan Medicine (December, 1968), p. 1460.

[153]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 24.

The American Medical Association (AMA) was founded in 1847. The main purpose of the AMA was to improve medical education in the United States.[154] Almost thirty years later, the Association of American Medical Colleges was founded. It tried to improve admission and educational standards, but lapsed into inactivity from 1883 to 1889, because it tried to bring about change too rapidly.[155]

In the late 1880's, the American Medical Association (AMA) formed committees and drafted a proposed national licensure bill; however, there was no support for national licensing, so in many states, possession of a medical diploma was a sufficient credential to establish practice.[156]

In 1891, the National Confederation of State Medical Examining and Licensing Boards took one of the initial steps to upgrade medical education by requiring a minimum of three years of medical training for licensure in member states.[157]

In 1904, the Council on Medical Education was established by the American Medical Association to formulate standards and to initiate school surveys.[158]

Recognizing the lag between the discovery of new biomedical knowledge and its application, the American Medical Association

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[154]Charles L. Hudson, "The Responsibility of the University in the Continuing Education of Physicians," Journal of Medical Education, Vol. 43 (May, 1968), p. 526.

[155]Ibid. [156]Ibid.

[157]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 21.

[158]Ibid.

began urging the development of continuing medical education efforts beyond those of the graduate, post-graduate schools, and the polyclinic hospitals.[159]

In 1906, the American Medical Association commissioned Dr. J. C. McCormack to visit various states to improve medical organizations and stimulate interest in post-graduate education. As a result of his visits, several county medical societies organized continuing medical education programs.[160]

In 1907, the Carnegie Foundation joined the American Medical Association's Council and the Association of American Medical Colleges and agreed to support a major study of methods of teaching medical students. Mr. Abraham Flexner, an educator, was selected to direct the study.[161]

The Blackburn Program was the medical profession's first attempt at organizing a national continuing medical education plan. This program was organized by Dr. John H. Blackburn for the Bowling Green, Kentucky, County Medical Society and was selected and publicized by the American Medical Association in 1907 as a model program. Publication of this program caused many county societies to adopt a similar plan. The first education issue of the Journal of the American Medical Association (JAMA) in September, 1907, described several similar innovative continuing medical education efforts organized by other local medical societies.[162] By 1909, there were

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[159] Ibid.

[160] Ibid., p. 190.

[161] Ibid.

[162] Ibid., p. 22.

approximately 350 county societies in twenty-nine states participating in the program.[163]

During this period, Dr. Abraham Flexner was visiting medical colleges in the United States and in Europe. As a result of these visitations and the ensuing report, almost one third of the existing medical schools immediately closed their doors; and with few exceptions, those remaining, either individually or by joining forces, raised admission and teaching standards to acceptable levels.[164]

Dr. Flexner prescribed three remedies for the problem: (1) the development of education for medicine as a university controlled discipline with the careful selection of students from those with an educational background in the liberal arts; (2) the institution of the full time teacher-investigator, and (3) the use of the hospital and laboratory in such a way that the student could, under supervision, get experience in the application of the scientific method to patient care.[165]

The revolution in medical education that followed this report was precipitated by the fact that the developing body of scientific knowledge was not being translated into medical practice by the existing system of medical education. It is believed that the gap between what was known and what was taught would have remained unnecessarily wide if most of the schools had not bolstered their

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[163]Ibid., p. 190.

[164]Abraham Flexner, Abraham Flexner, An Autobiography (New York: Simon and Schuster, 1960).

[165]Ibid.

educational programs by adding qualified medical scientists to their faculties, by introducing research as part of their academic function, and by raising their standards of admission and education accordingly.[166]

In 1910, the American Medical Association's Council on Medical Education published its first list of acceptable medical schools. The Council's accreditation system was voluntary and while its approval of schools had no formal legal status, the public governmental agencies and licensing boards began to use this accreditation as a basis for their own authorization of medical schools. "In fact, the minimum standards exercised through the membership requirement of the Association of American Medical Colleges and the American Medical Association's accreditation criteria were major forces in the post-Flexner reform of medical education. The American Medical Association's leadership in this social change was particularly noteworthy, since many of its members had graduated from the schools the accrediting process was eliminating.

The reorganization of medical education was also facilitated by substantial grants from the General Education Board of the Rockefeller Foundation."[167]

In 1911, the Academy of Medicine of Northern New Jersey was formed for the purpose of post-graduate education. A well-equipped

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[166]Charles L. Hudson, "The Responsibility of the University in Continuing Education of Physicians," Journal of Medical Education, Vol. 43 (May, 1968), p. 527.

[167]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), pp. 12-13.

Library was established and located in Newark. The library and the Academy's facilities were used extensively for post-graduate education by New Jersey physicians who also availed themselves of facilities in other areas of the country that met their demands.[168]

Around 1915, the first American specialty societies were organized. These were the American College of Surgeons and the American College of Physicians.[169]

"The next step forward in the continuing medical education field was a 1916 experiment called the North Carolina Extension Plan and organized by Dr. W. S. Rankin, the state health officer. This experiment attempted to bring continuing medical education to the local practitioners of a predominantly rural state by sending instructors on two circuits located on opposite ends of the state."[170] The American Board of Ophthalmology, the first specialty board, was established this same year.[171] The first hospital accreditation was done by the American College of Surgeons in 1918.[172]

"In 1919, the first list of graduate schools was published by the Council on Medical Education. Seven of the eighteen schools on this list were associated with universities, again reflecting the

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[168]James A. Rogers, "The New Jersey Story in Continuing Medical Education," The Journal of the Medical Society of New Jersey, Vol. 70, No. 2 (February, 1973), p. 205.

[169]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 19.

[170]Ibid., p. 23. [171]Ibid., p. 20.

[172]William F. Meacham, "On Continuing Medical Education," Journal of the Tennessee Medical Association (September, 1973), p. 819.

major changes in medical education resulting from Flexner's classic study. . . . During this same period, there were 6,000 physicians involved in short term graduate training and about 4,000 engaged in prolonged specialty training."[173]

"By 1920, American undergraduate medical education had emerged from its apprenticeship-trade school era and had become primarily a university-based process integrating scientific knowledge, research, and a scientific approach to patient care."[174]

The major continuing medical education institutions in the early 1920's were graduate, post-graduate schools, and polyclinic hospitals.[175]

By 1923, there were signs of growing involvement by medical societies and medical schools. "In 1926, representatives of the University of Michigan Medical School met with the Council of the Michigan State Medical Society to consider ways to meet the needs for continuing medical education in Michigan. . . . In June, 1927, the Board of Regents approved establishing a Department of Postgraduate Medicine with the Medical School."[176]

In his fellowship address to the American College of Surgeons in 1929, Dr. William Mayo advocated continuous education for all surgeons.[177]

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[173]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), pp. 17, 20.

[174]Ibid., p. 31. [175]Ibid. [176]Ibid., pp. 45-46.

[177]William F. Meacham, "On Continuing Medical Education," Journal of the Tennessee Medical Association (September, 1973), p. 819.

By 1930, the emphasis in continuing medical education was changing from attempts to remedy the deficiencies of poorly educated physicians to keeping up-to-date with a rapidly expanding body of biomedical knowledge.[178]

During this same period, the regional responsibility for the continuing education of physicians was initiated by three medical schools: the University of Michigan, Albany Medical College, and Tufts University. Michigan's efforts were stiumulated by the newly organized W. K. Kellogg Foundation, Albany's by a health department, and Tufts' by an endowment.[179]

"In 1932, the final report of the Commission on Medical Education, whose director was Dr. Willard C. Rappleye (who later became Dean of the College of Physicians and Surgeons of Columbia University), included the following statements: The continued education of physicians is synonymous with good medical practice and provisions should be made ultimately, whereby every physician will be able to continue his education if he wishes to do so. . . . The time may come when every physician may be required in the public interest to take continuation courses to insure that his practice will be kept abreast of current methods of diagnosis, treatment,

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[178]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 20.

[179]John H. Moxley III, "Legislation and Social Pressures for Continuing Education," Journal of the American College of Dentists, Vol. 36 (July, 1969), p. 155.

and prevention."[180]

Between 1933 and 1934, the American Board for Medical Specialties was organized. The Board's membership included representatives from each of the following specialty boards: Opthalmology (organized in 1917); Otolaryngology (1924); Obstetrics and Gynecology (1932), and Dermotology (1932). The purpose of the American Board for Medical Specialties was and still is, to act in an advisory capacity to organizations that may need its advice concerning the coordination of the education and certification of medical specialists. The Board maintains a close working liaison with the American Medical Association Council.[181]

"The first attempt at evaluating the impact on practice habits of CME course attendance was reported in 1935 by Dr. John B. Youmans, Director of Post-graduate Instruction at Vanderbilt University School of Medicine. . . . The objective of the course was essentially reparative. . . . Improvement in grades of practice ranged from 6 to 126%, and an average of 17%. . . . In commenting on CME methods, Dr. Youmans noted the decided superiority of practical over didactic teaching . . . It should not be inferred that didactic teaching has no place. It has definite value, but its use should be restricted to an amount necessary to correlate properly,

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[180]C. H. William Ruhe, "Governmental and Societal Pressures for Programs of Continuing Education," Bulletin of the New York Academy of Medicine, Vol. 51, No. 6 (June, 1975), p. 710.

[181]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan, University Microfilms International, 1975), p. 20.

guide and develop the subject as provided in practical exercises."[182]

In 1940, the first nationwide study of continuing medical education was published. It led to the decision that the AMA Council on Education was to keep and periodically publish a voluntary listing of continuing education courses. The listing was to remain voluntary and without regard for quality for the next twenty-seven years.[183]

The decade of the thirties saw progressive development in the theory and significance of continuing education for physicians. Then World War II! It affected medical education and practice as dramatically as had the Depression years. Medical school programs were accelerated in order to graduate more doctors to meet wartime requirements. After the war, there was a return to the refresher or reparative aspects of post-graduate medical education. Although the war was a setback in the evolutionary development of continuing education, this was not without some long range benefits in that it did bring dental schools, medical schools, and hospitals to re-examine their individual programs in respect to both quantity and quality and shifted the major responsibility for continuing education, from the professional societies, where it had traditionally lodged, to the universities and their medical schools.[184]

Following the publication of the Vollan Report in 1955, the Council on Medical Education appointed an Ad Hoc Committee on

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[182]Ibid., p. 51. [183]Ibid.

[184]John H. Moxley III, "Legislation and Social Pressures for Continuing Education," Journal of the American College of Dentists, Vol. 36 (July, 1969), p. 156.

Post-graduate Medical Education to explore the problems of continuing medical education and to suggest useful approaches to their solution. The Committee proposed and the Council adopted a working plan calling for the development of an accreditation program at an early date.[185]

In 1957, the Ad Hoc Committee prepared and the Council approved "A Guide Regarding Objectives and Basic Principles of Continuing Medical Education Programs." This brochure was revised in 1960, 1964, and 1967 and serves as the statement of basic principles which should guide the conduct of a program offered by an institution seeking accreditation.[186]

In 1961, the recognition of the need for coordination and leadership in the continuing education of physicians, the Joint Study Committee in Continuing Medical Education was formed.[187]

In 1961, the Council on Medical Education established a standing Advisory Committee on Continuing Medical Education. Under its direction, a pilot study of twenty institutions in all parts of the United States was made to determine the feasibility of an accreditation program and the mechanism for its implementation. As as result of this study, a formal plan for accreditation was proposed

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[185]Charles L. Hudson, "The Responsibility of the University in Continuing Education of Physicians," Journal of Medical Education. Vol. 43 (May, 1968), p. 528.

[186]Ibid., p. 529.

[187]Bernard V. Dryer, "Lifetime Learning for Physicians--Principles, Practices, Proposals: Summary of the Report of the Joint Study Committee in Continuing Medical Education," Journal of the American Medical Association, Vol. 37 (May 26, 1962), pp. 676-679.

by the Committee and was adopted by the Council and by the American Medical Association House of Delegates in June, 1964.[188]

Staffing difficulties delayed implementation of the plan, but the first formal actions were taken not long after. At the June, 1967 meeting of the Council, fourteen (14) institutions were formally accredited and proposals for surveying other institutions requesting accreditation were approved.[189]

In 1962, Dr. Dryer presented the committee report, "Lifetime Learning for Physicians--Principles, Practices, Proposals," to the medical community. This comprehensive "landmark" report emphasized the necessity of cooperative, long range planning by all concerned professional groups if lifetime professional education is to be achieved within a profession. The study has three major parts: (1) Principles (based on assumptions), (2) Practices (based on criteria considered necessary for continuing education programs; excellence of content, personal satisfaction, freedom of choice, continuity, accessibility, and convenience), and (3) Proposals for action. Eight health-related national professional associations sponsored and joined in developing the study.[190]

In 1965, the Congress of the United States passed Public Law 89-239, in order to provide an approach for improving health care.

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[188]Charles L. Hudson, "The Responsibility of the University in Continuing Education of Physicians," Journal of Medical Education, Vol. 43 (May, 1968), p. 529.

[189]Ibid.

[190]Bernard V. Dryer, ed., "Lifetime Learning for Physicians--Principles, Practices, Proposals," Journal of Medical Education, Vol. 37 (June, 1962), pp. i-134.

The purpose of Public Law 89-239 was to provide monies by which professional staffs and supporting staffs could be obtained, and provide the means to support "people activities" in planning, to secure consultation, and to support operational programs, projects, and activities. Medical continuing education has increased at a rapid rate, as a result of this law.[191]

During this same period, the Coggeshall report was completed. The report discussed the problems facing the Association of American Medical Colleges, its future role and organization. The report stated that, "It is increasingly clear that the need of the future is for the university to assume comprehensive responsibility for medical education extending to the pre-medical student, the medical student, the intern, the resident, and the physician."[192]

The Millis Commission report did for graduate medical education what the Flexner report did for undergraduate medical education. The report recommended that each teaching hospital organize its staff so as to make its programs of graduate medical education a corporate responsibility rather than the individual responsibilities of particular medical or surgical services or heads of

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[191]Donald L. Erickson and Martha Nicols, ed., Learning How to Learn--Know Why and Know How Seminar on the Process of Continuing Education (Laramie, Wyoming, February 12-14, 1970 [WICHE-Mountain States Regional Medical Program, Wyoming Division, 3100 Henderson Drive, Cheyenne, Wyoming, 82001, August, 1969]), p. 1.

[192]John B. Gramlich, "Lifelong Learning: A Look at Continuing Surgical Education," The American Journal of Surgery, Vol. 132 (December, 1976), p. 685.

services.[193]

The 1967 Report of the National Advisory Commission on Health Manpower recommended that professional societies and state governments explore periodic relicensure of physicians based on certification of acceptable performance in continuing education programs or challenge examinations in the physician's specialty. At this time, most states required only an application form and a modest fee to renew one's license to practice medicine.[194]

Prior to 1968, all continuing medical education participation was voluntary with the exception of the longstanding requirement for membership in the American Academy of Family Physicians. Since 1968, continuing medical education has been adopted as a membership requirement by twelve state medical societies, several specialty societies and as part of the re-certification requirements of the American Board of Family Practice.[195] Mandatory continuing medical education will be discussed later in this section.

In 1968, the University of Kentucky's College of Medicine established the post of Associate Dean for Continuing Education, in the Office of the Dean of the School of Medicine the same year.[196]

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[193]William F. Meacham, "On Continuing Medical Education," Journal of the Tennessee Medical Association (September, 1973),p.819.

[194]Robert K. Richards, Jr., "Mandatory CME--Springboard or Stumbling Block?" Michigan Medicine (August, 1976), p. 428.

[195]Ibid., p. 429.

[196]Frank R. Lemon, "The Kentucky Foundation for Medical Care Continuing Education--Practices and Attitudes of Kentucky Physicians, 1972," The Journal of the Kentucky Medical Association (April, 1973), p. 221.

A new concept of self-assessment examination was introduced in 1968 by the American College of Physicians. This self-examination made it possible for the physician to determine the level of his current medical knowledge and consequently plan the nature and content of his voluntary personal program of continuing medical education.[197]

In 1969, the American Medical Association offered its Physician's Recognition Award (PRA) to recognize and encourage physicians who voluntarily participated regularly in continuing medical education and to stimulate the development of more meaningful CME opportunities.[198]

In January, 1970, the Medical Association of the State of Alabama looked at the issues of continuing education and the professional competency of its membership. A Position Paper was sent to the Board of Censors and Board of Trustees from the Education Committee expressing its views and recommendations concerning the role the State Association should be playing in the education of its membership. This paper recommended that an Office of Education staffed with full time individuals be established within the state office of the Medical Association. The paper was approved by the Board of Trustees and studied by an Ad Hoc Committee appointed by

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[197]Rutledge W. Howard, "Continuing Medical Education--An Editorial," Journal of American Medical Association, Vol. 225, No. 7 (August 13, 1973), p. 730.

[198]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 145.

the Board of Censors.[199]

One of the best and most comprehensive continuing medical education programs was that of the California Medical Association. They began planning their program in 1967 and implemented it as a voluntary program in 1970.[200]

In 1971, the Association of American Medical Colleges endorsed the recommendation of the Coggeshall and Millis Reports that university medical centers assume institutional responsibility for graduate medical education analogous to their responsibility for undergraduate education.[201]

In 1972, the state societies of California, Iowa, and of the District of Columbia adopted recommendations for a specific kind and amount of continuing medical education for their membership on a voluntary basis.[202]

"On March 29 and 30, 1973, the American Board of Medical Specialties [(A.B.M.S.), of which the Academy of Family Practice is a member] met in Chicago. There the A.B.M.S. adopted resolutions

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[199]Margaret S. Klapper, "Continuing Education: Responsibilities and Directions," Journal of the Medical Association of the State of Alabama, Vol. 4, No. 11 (May, 1972), pp. 883-884.

[200]Charles R. Jenkins, "The President Speaking--Continuing Medical Education," Journal of Mississippi State Medical Association, Vol. 13 (December, 1972), p. 502.

[201]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975).

[202]Editorial, "Continuing Medical Education--Implications Concerning Re-certification, Re-examination and Relicensure," American Journal Roentgenol Thermonuclear Medicine, Vol. 121, No. 1 (May, 1974), p. 194.

with far-reaching implications for Diplomates of the American Board of Radiology and other specialists."[203]

"Among other actions, the A.B.M.S. adopted in principle, and urged concurrence of its member boards the policy that voluntary, periodic re-certification of medical specialists become an integral part of all national medical specialty certifying programs."[204]

It recommended that the A.B.M.S. establish a reasonable deadline by which time voluntary periodic re-certification of medical specialists will have become a standard policy and procedure of all member boards.[205]

"Furthermore, it was recommended that the A.B.M.S. consider the most appropriate manner of recognizing re-certification of diplomates, including appropriate indications of such re-certification in the Directory of Medical Specialists."[206]

By 1974, all of the twenty-two specialty boards of the American Board for Medical Specialties had endorsed the concept of re-certification, although the endorsement usually specified a voluntary rather than mandatory approach. In response to the above recommendation, the American Board of Internal Medicine offered a voluntary re-certification examination to its members (1974).[207]

At its 124th Annual Convention (June, 1975), the American Medical Association gave strong support for the principle of continuing medical education; however, it recommended that such education be on a voluntary basis (Resolution 6, adopted by the House of

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[203] Ibid., p. 195. [204] Ibid. [205] Ibid.

[206] Ibid. [207] Ibid.

Delegates). " . . . Nevertheless, medical practice acts in fifteen states gave the state board of medical examiners in each of them authority to produce evidence of continuing medical education as a condition for re-registration of the license to practice medicine."[208]

Mandatory Continuing Medical Education

The main effort in continuing education prior to 1930 was directed toward correcting the deficiencies of the enrollee's initial education and hopefully making him a safer practitioner.[209]

It was not until the thirty's when the last of the proprietary schools closed, and concurrently graduate specialty programs began to develop rapidly that continuing education came to be viewed as the necessary third stage in what is now called, "the continuing or lifelong education of the dentist and physician." About that time, many of the concepts that are still being considered new or radical came into being, among them the desirability of regionalization and of compulsory relicensure.[210]

"In 1932, an American Medical Association Commission on Medical Education proposed remarkable modern ideas relative to continuing education; thirty-six years later, some of their ideas have

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[208]"Mandatory Continuing Medical Education," Journal of the American Medical Association, Vol. 236, No. 26 (December 27, 1976), p. 3044.

[209]John H. Moxley III, "Legislation and Social Pressures for Continuing Education," Journal of the American College of Dentists, Vol. 36 (July, 1969), p. 154.

[210]Ibid., p. 155.

yet to be acted upon. Excerpts from this report include: (1) The educational sequence from pre-medical school to retirement from practice should be looked upon broadly as a single problem, not a succession of isolated and unrelated experiences."[211]

"The Commission report raised the possibility that compulsion might be necessary to enforce continuing education. This thought appeared again in 1934 when the American Board of Urology was formed. One of the by-laws states that each certificate shall be subject to revocation in the event 'that the physician so certified shall at any time have neglected to maintain the degree of competency in the practice of the specialty of urology as set up by the Board and shall refuse to submit to re-examination by the Board.' It was unable to find out, however, whether or not the foregoing by-law has ever been invoked."[212]

In 1937, the American Medical Association president, Dr. J. H. J. Upham, spoke of the need and objectives of continuing education. He said, "There is already a trend toward compulsory evidence of post-graduate improvement . . . in several states there are laws requiring annual registration of physicians . . . there is a possibility that the next step might be requirement for renewal of licensure through evidence of familiarity with the developments in medicine by five or ten-year periodic examinations."[213] He then

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[211]Ibid. [212]Ibid.

[213]C. H. William Ruhe, "Governmental and Societal Pressures for Programs of Continuing Education," Bulletin of the New York Academy of Medicine, Vol. 51, No. 6 (June, 1975), pp. 710-711.

called upon the AMA to assume the leadership and put forth a program demonstrating that it had a definite plan for medical education at all levels.

"It is generally acknowledged that it was not until 1940 or so that physicians could really do a great deal for patients. There simply was a lack of knowledge and a lack of tools. Quite frankly, there was no great uproar about "keeping up" because there was nothing much to keep up with. Still, most physicians did their best to stay abreast of the knowledge available. With World War II and afterwards came what has been called the "knowledge explosion," the great scientific push."[214]

Just two years after the end of World War II, the American Academy of General Practice--now the American Academy of Family Physicians--became the first medical organization to require continuing education of its members.[215]

One of the conditions of membership in the American Academy of Family Physicians (formerly the American Academy of General Practice) was the requirement that members participate in at least one hundred and fifty hours of continuing medical education every three years. "Although it did not attract great professional attention at the time and was not followed quickly by similar actions by other organizations, this action now looms as a landmark; it has served as

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[214]C. A. Hoffman, "The Follow-up to Flexner," The West Virginia Medical Journal, Vol. 68, No. 8 (August, 1972), p. 204.

[215]Ibid.

the basis for many similar actions taken in recent years."[216]

Michigan was the first state to "require annual re-registration of continuing medical education for any osteopathic physician to practice in that state." The law became effective in July, 1949.[217]

"The American College of General Practitioners in Osteopathic Medicine and Surgery since 1950 has had an annual postgraduate requirement for continuing medical education."[218]

Dr. Gunnar Gunderson, President of the American Medical Association, cited in his speech before the Federation of State Medical Boards in 1959 the trends in continuing medical education and the possibility of continuing education becoming within ten years a requirement for relicensure.[219]

In November, 1967, the National Advisory Commission on Health Manpower suggested in its report to President Lyndon B. Johnson, that periodic relicensing may be the only way to insure "that a practitioner's knowledge reflects the most advanced results

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[216]C. H. William Ruhe, "Governmental and Societal Pressures for Programs of Continuing Education," Bulletin of the New York Academy of Medicine, Vol. 51, No. 6 (June, 1975), p. 711.

[217]Editorial, "Continuing Medical Education, Phase I," Journal of American Osteopathic Association, Vol. 72 (March, 1973), p. 616.

[218]Ibid.

[219]Robert G. Green, "The Case for Mandatory Continuing Education as a Prerequisite for Relicensure," Virginia Medical Monthly, Vol. 102 (November, 1975), p. 948.

of medical progress."[220] The Commission noted that the increasing pace of medical advances has rendered inadequate the older means of assuring that physicians will use the best technics and information available. It stressed that the physician's education must be continued as long as he practices. Otherwise, the physician will be unaware of new development and he will probably continue to use outdated technics of diagnosis and treatment which would be far less effective in improving the quality of health care than if he had made strong efforts at self-renewal. There are certain features of the Commission's report which shall be restated at this time. First, the Commission noted that the simple deed of making education opportunities available to the physician will not assure his utilization of such opportunity unless sufficient incentives are provided. Among these incentives would be the relicensure of health professionals, including physicians, periodically on the basis of acceptable performance in continuing education. The Commission also noted that an alternative way for the health professional to document his self-renewal would be for him to take a challenge examination in his specialty."[221]

Prior to 1968, all continuing medical education participation was voluntary with the exception of the longstanding requirement

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[220]Donald H. Williams, "Professional Competence or Obsolescense--Which?" Journal of the Medical Association of the State of Alabama, Vol. 39, No. 7 (January, 1970), p. 718.

[221]Rutledge W. Howard, "Influences on Continuing Medical Education," Rocky Mountain Medical Journal (July, 1973), p. 28.

for membership in the American Academy of Family Physicians.[222]

In 1968, the Oregon State Medical Association became the first state medical society to require continuing medical education as a basis for membership.[223] Implementation occurred in 1969.[224]

"In 1968 and 1970, the American Medical Association sponsored national conferences for state medical association representatives on continuing medical education so that state associations might formulate their roles in continuing education. A recommendation of the first conference was that state associations establish strong committees of education with appropriate budgetary support and some full time staff. In 1947, the American Academy of General Practice pioneered in requiring its members to engage in programs of continuing education to maintain membership. Twenty years passed before another medical organization established similar requirements. The Physicians Recognition Award of the American Medical Association is a program of credit for participation in continuing education. Several specialty boards are considering institutional systems of re-certification, although none has gone so far as to require re-examination. The newly formed Board of Family Practice (1969)

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[222]Robert K. Richards, Jr., "Mandatory CME--Springboard or Stumbling Block?" Michigan Medicine (August, 1976), p. 429.

[223]C. H. William Ruhe, "Governmental and Societal Pressures for Programs of Continuing Education," Bulletin of the New York Academy of Medicine, Vol. 51, No. 6 (June, 1975), p. 712.

[224]Merle Pennington, "A Review of Mandatory Continuing Medical Education in Oregon," The Western Journal of Medicine, Vol. 120, No. 1 (January, 1974), p. 80.

will issue certification for a six-year period, and physicians will have to meet criteria for re-certification."[225]

By 1970, an American Medical Association survey showed that thirty-eight state medical associations had organizational units for continuing education and twenty-four associations reported co-operative continuing education programs.[226]

"The Carnegie Commission on Higher Education in its 1970 report, Higher Education and the Nation's Health, noted the rapid progress of medical knowledge and the associated problem of education obsolescence among practicing physicians. . . . The Commission recommended the adoption of national requirements for periodic re-examination or re-certification of all physicians by specialty boards and other appropriate bodies. The linking of renewal of the license to practice medicine (relicensure) or reaffirmation of specialist status (re-certification) with required participation in CME is the expression for a society which recognizes that the responsibility for lifelong learning can no longer be the prerogative of the individual physician. It is instead, a responsibility which must be shared by both the physician and the public."[227]

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[225]Margaret S. Klapper, "Continuing Education: Responsibilities and Directions," Journal of the Medical Association of the State of Alabama, Vol. 4, No. 11 (May, 1972), pp. 882-883.

[226]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 142.

[227]Robert K. Richards, Jr., and David Stein, "Mandatory Continuing Education in Medicine: A Challenge to Adult Educators," The NUEA Spectator (September, 1975), p. 21.

New Mexico was the first of the fifty states to require relicensing. This law went into effect in 1971. It prescribed one hundred and twenty hours of post-graduate educational credit every three years.[228]

Similar laws have since been adopted in Kansas, Kentucky, Maryland, Michigan, Ohio, Wisconsin, Utah, California, Arizona, Washington, and Illinois.[229]

"Innovative efforts to develop coordinated state plans include the Indiana Plan, passed by the state legislature in 1971, to link the Indiana University School of Medicine with communities in the state for the purposes of undergraduate, graduate, and continuing medical education and the creation in 1972 of the Illinois Council on Continuing Medical Education."[230]

The emphasis upon continuing education at the American Medical Association's Congress of Medical Education in Chicago of February, 1972, clearly indicated that the issue now is not whether continuing education will be required of physicians, but what system will be used and how it will be enforced.[231]

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[228]John T. Galambos, "Continuing Medical Education and Professional Competence," Southern Medical Journal, Vol. 67, No. 7 (July, 1974), p. 757.

[229]Robert K. Richards, Jr., "Mandatory CME--Springboard or Stumbling Block?" Michigan Medicine (August, 1976), p. 428.

[230]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 142.

[231]Margaret S. Klapper, "Continuing Education: Responsibilities and Directions," Journal of the Medical Association of the State of Alabama, Vol. 4, No. 11 (May, 1972), p. 884.

"Six state medical associations have made policy decisions that will in effect require continuing medical education as a condition of membership--Oregon, Arizona, Pennsylvania, New Jersey, Massachusetts, and Florida. As of October 12, 1972, three of these state associations (Oregon, Arizona, and Pennsylvania) had adopted and published continuing medical education criteria for their programs.[232]

Three states, Kansas, New Mexico, and Maryland, have medical practice acts that give the State Board of Medical Examiners authority to require evidence of continuing medical education as a condition for re-registration of the license to practice medicine.[233]

At this same time, the Ohio State Medical Society was developing a policy that would require documentation of continuing education of its members.[234]

For many years osteopathic physicians in Arizona, Florida, Maine, Michigan, Nevada, New Mexico, Oklahoma, Tennessee, Vermont, and West Virginia had legislated continuing medical education programs upon themselves to assure the public that osteopathic physicians were up-to-date in their medical knowledge and their

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[232]Clarke W. Mangun, "Documentation of Continuing Medical Education--An Idea Whose Time Has Come," Journal of the American Medical Association, Vol. 222, No. 8 (November 20, 1972), p. 1053.

[233]Charles R. Jenkins, "The President Speaking--Continuing Medical Education," Journal of Mississippi State Medical Association, Vol. 13 (December, 1972), p. 502.

[234]C. A. Hoffman, "The Follow-up to Flexner," The West Virginia Medical Journal, Vol. 68, No. 8 (August, 1972), p. 204.

treatment abilities.[235]

"Actually, there are twelve states that require continuing medical education, but the ten listed previously were obtained from osteopathic boards that issue unlimited practice licenses to D.O.S. Curiously in one state, Ohio, the board is composed of one D.O. and seven M.D.'s, but the continuing education requirement applies only to D.O.S. In Maryland, an all M.D. board that licenses both D.O.S. and M.D.'s enforces a two-year continuing education requirement."[236]

At its annual convention in June, 1973, the American Medical Association House of Delegates adopted a strong policy statement on continuing medical education: The American Medical Association is a professional organization dedicated to scientific excellence and the delivery of high quality medical care to the American public. The American Medical Association believes strongly that regular participation in continuing medical education is essential to the maintenance of professional competence. The American Medical Association believes that every member of the Association and every other physician should plan and engage voluntarily in a regular program of continuing education designed to maintain his personal professional competence.[237]

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[235]Editorial, "Continuing Medical Education, Phase I," Journal of American Osteopathic Association, Vol. 72 (March, 1973), p. 616.

[236]Ibid., p. 617.

[237]C. H. William Ruhe, "Governmental and Societal Pressures for Programs of Continuing Education," Bulletin of the New York Academy of Medicine, Vol. 51, No. 6 (June, 1975), pp. 712-713.

"The nation's first re-certification examination was given on October 26, 1974 by the American Board of Internal Medicine."[238]

On January 1, 1974, Minnesota became the seventh state medical association to require evidence of continuing medical education as a basis for membership in its state medical association.[239]

In 1974, the American College of Radiology instituted a requirement of one hundred and fifty hours for each three years of membership.[240]

At its meeting on April 10, 1975, the Board of Trustees of the Kentucky Medical Association approved recommendations made by the Medical Education Committee on participation in continuing medical education. " . . . That regulations requiring participation by individual physicians be put into effect as of July 1, 1975, and the first qualification period should end June 30, 1978." Resolution A passed by the 1974 session of the House of Delegates adopted the concept of mandatory participation in continuing medical education and provided for specialty group input into developing requirements.[241]

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[238]Howard L. Horns, "Relicensure and Re-certification," Journal of the American Medical Association, Vol. 229, No. 4 (July 22, 1974), p. 458.

[239]H. F. Van Cleve, "Continuing Medical Education," Minnesota Medicine (April, 1974), p. 335.

[240]C. H. William Ruhe, "Governmental and Societal Pressures for Programs of Continuing Education," Bulletin of the New York Academy of Medicine, Vol. 51, No. 6 (June, 1975), p. 711.

[241]"Mandatory Continuing Medical Education," The Journal of the Kentucky Medical Association (May, 1975), p. 278.

Other state societies requiring documentation of continuing education as a requirement for membership in addition to Kentucky are: Alabama, Arizona, Florida, Kansas, Massachusetts, Maine, Minnesota, New Jersey, North Carolina, Pennsylvania, and Vermont.[242]

In 1975, the state of Michigan required continuing education for relicensure of its physicians.[243]

"All certificates issued to diplomates of the American Board of Surgery from 1975 forward will be for ten years only. The re-certification process will be established and put into effect by 1985 and will function each year thereafter."[244]

September 1, 1976, Rhode Island instituted mandatory continuing education (Chapter 37 of Title V of the General Laws of Rhode Island): The first documentation is due with the November, 1979 application, and those not in compliance with the law will after January 1, 1980 be without a license to practice medicine in the State of Rhode Island."[245]

By 1977, the following states had mandatory continuing education requirements for relicensure or the medical associations had

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[242]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 146.

[243]Robert K. Richards, Jr., "Mandatory CME--Springboard or Stumbling Block?" Michigan Medicine (August, 1976), p. 429.

[244]John B. Gramlich, "Lifelong Learning: A Look at Continuing Surgical Education," The American Journal of Surgery, Vol. 132 (December, 1976), p. 683.

[245]Herbert F. Hage, "Continuing Medical Education Requirements for Triennial Relicensure in Rhode Island," Rhode Island Medical Journal, Vol. 59 (November, 1976), p. 477.

the requirement for membership: Alaska, Arizona, California, Colorado, Illinois, Kansas, Kentucky, Maryland, Michigan, Minnesota, Nebraska, New Mexico, Ohio, Rhode Island, Utah, Washington, and Wisconsin.[246]

These states have the requirement but statutes have not been put into effect (1977): Alabama, Florida, Maine, Massachusetts, Montana, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, and Vermont.[247]

Continuing Medical Education--Professional Attitudes

In 1938, the American Medical Association Council initiated the first national survey of continuing medical education programs. This study, directed by Dr. Hamilton Anderson, was published in the Journal of American Medical Association in several installments. Anderson's report, based on visits to twenty-four states, noted that medical societies had taken on leadership responsibilities in continuing medical education. In twenty states, the chairmen of the state societies' Medical Education Committee directed some or all of the courses in their states. The report shows that in twelve of the states studied, 25 per cent of the physicians were engaged in some form of continuing education during one year.[248]

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[246]Beverly T. Watkins, "Certification of Professionals: A Bonanza for Extension Programs," The Chronicle of Higher Education, April 11, 1977, p. 23.

[247]Ibid.

[248]Robert K. Richards, Jr., Current Forces Influencing Continuing Medical Education in the United States (Ann Arbor, Michigan: University Microfilms International, 1975), p. 53.

During the fifties, at least two more national studies were done, but they added little to those done earlier.[249]

In April, 1969, a survey was conducted by the Northwest Medicine Journal. "The mailing list was prepared from pages of the Director of the American Medical Association, a few names from each page to yield two hundred from Oregon, Washington, and Idaho. Geographic location and specialty were disregarded. Those selected were listed as being in practice and those more than 50 years of age were excluded."[250]

"At press time for this issue (Northwest Medicine, June, 1969), 75 questionnaires had been returned."[251]

The question and compiled responses germane to this study is as follows:

Continuing medical education is:

	Number of responses
Necessary	68
Not necessary	1
Helpful	6
Total responses	75[252]

In November, 1971, a Medical Opinion report showed that, "of a nationwide sampling of 933 physicians, 57% deemed relicensure

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[249]John H. Moxley III, "Legislation and Social Pressures for Continuing Education," Journal of the American College of Dentists, Vol. 36 (July, 1969), p. 156.

[250]"Continuing Education and Relicense--Physician Opinion," Northwest Medicine (June, 1969), p. 532.

[251]Ibid.

[252]Ibid.

unnecessary, 37% favored it, and 6% had no opinion. (It is interesting to note that those who most strongly support relicensure had the lowest opinion of the American Medical Association."[253]

"During January and February, 1972, a questionnaire was mailed to the 2,800 Kentucky Medical Association doctors actually involved in patient care. Three hundred and five (305) of these were selected for interview on a stratified random basis as a carefully designed representative sample of the total membership in terms of practice locations and specialties, age, sex, and number of years in practice."[254]

" . . . Questionnaires were mailed to them as to all Kentucky physicians but with a special request to complete the document and hold it awaiting a telephone call from a trained interviewer."[255]

"Two hundred and sixty-two (262) of the sample (305) responded."[256]

The survey was concerned was concerned with several aspects of the practices, desires, needs, and attitudes toward continuing education, its financing, and its essentiality to continuing qualifications as a physician.[257]

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[253]Editorial, "Continuing Medical Education--Implications Concerning Re-certification, Re-examination and Relicensure," American Journal Roentgenol Radium Thermonuclear Medicine, Vol. 121, No. 1 (May, 1974), p. 193.

[254]Frank R. Lemon, "The Kentucky Foundation for Medical Care Continuing Education-Practices and Attitudes of Kentucky Physicians, 1972," The Journal of the Kentucky Medical Association (April, 1973), p. 221.

[255]Ibid. [256]Ibid. [257]Ibid., p. 222.

The bulk (90%) of practicing KMA physicians were between the ages of 30 and 59, with the median falling between 40 to 49 years. The median number of years in practice was between 15 and 19; two-thirds of these physicians had practiced less than 25 years. There were 9 (3%) women in the sample group, 7 of whom responded to the survey. Half of the physicians were located in population groups of 50,000 or more, 1/3 in towns or centers of less than 10,000.[258]

Sixty-four per cent endorsed mandatory and verified continuing education efforts as a qualification for various kinds of professional relationships. One-third (1/3) endorsed it as a qualification for continuing license to practice.[259]

Of those who had previously taken self-assessment tests, 76% endorsed some form of mandatory and verified continuing education; of those who had not taken such tests, the endorsement was 56%.[260]

The interviewed sample (262 physicians) shared very similar demographic characteristics with non-respondents to the study and to a larger number of respondents by mail who were not interviewed.[261]

Continuing Medical Education--Summary

Prior to 1930, a large percentage of physicians were graduates of proprietary schools. Few had graduate training. The major effort in continuing education was directed toward correcting the deficiencies of the physician's initial education and hopefully making him a safer practitioner.

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[258] Ibid.

[259] Ibid., p. 225.

[260] Ibid., p. 226.

[261] Ibid., p. 227.

It was not until the thirties when the last of the proprietary schools closed and concurrently graduate specialty programs began to develop so rapidly that continuing education came to be viewed as the necessary third state in what is now called "the continuing or lifelong education of physicians.

About that time, many of the concepts that are still being considered new or radical came into being, among them the desirability of regionalization and of compulsory relicensure.

In 1940, the first nationwide study of continuing medical education was published.

World War II ushered in a kind of setback in the evolutionary development of continuing medical education; however, this was not without some long range benefits in that medical schools began to re-examine their programs and shifted the responsibility for continuing education from the professional societies to the universities and their medical schools. Two years after the war had ended, the American Academy of Family Physicians (formerly the American Academy of General Practice) became the first medical organization to require continuing education of its members.

Until 1968, all continuing medical education participation was voluntary with the exception of the American Academy of Family Physicians.

In 1968, the Oregon State Medical Association became the first medical society to require continuing education as a basis for membership.

In the seventies, the emphasis in continuing medical education (CME) is not whether it (CME) would be required of physicians, but what system would be used and how it would be enforced.

Elective Continuing Engineering Education

"One of the major problems which the public has in dealing with the engineering profession is that of identity. There is such fragmentation and proliferation of professional and technical engineering societies representing anywhere from one narrow professional specialization up to the entire broad profession that the public becomes confused in determining which group or groups, if any, really can and do speak for the professional engineer. . . . This proliferation also creates internal problems and confusion for the profession. Not the least of these is a major problem in communicating with one another."[262]

Because of rapidly changing knowledge and technology, an engineering education is widely quoted as having a half-life of five years. For this reason, continuing engineering education has been recognized as an important responsibility of the profession since World War II.[263]

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[262]Robert D. Reckert, "Trends in Professional License Renewal Requirements" (speech presented at the 1974 ASCE Annual and Environmental Engineering Convention, Kansas City, Missouri, October 21-25, 1974).

[263]Cameron M. Smith, A Report on the Demands of Industry and Government for Engineering Education Programs in the Metropolitan Cleveland Area (Fenn College of Engineering, The Cleveland State University, April, 1970), 90 pp.

"The American Institute of Chemical Engineers (AIChE) began presenting continuing education courses in 1958, but not until 1965 was this program formalized with full time staff support. . . . A Continuing Education Committee formed in 1963 was charged with the responsibility of setting overall policy and general planning while the Continuing Education Department was responsible for the delivery of programs, including production, evaluation, and budgeting. . . . AIChE decided it was not going to compete with universities and industry, but rather would be an active partner in efforts to provide appropriate education opportunities."[264]

In 1964, the American Engineers Council for Professional Development, the American Society for Engineering Education, the Engineers Joint Council, and the National Society of Professional Engineers published a joint report about continuing engineering education. The publication was titled, Continuing Engineering Studies.[265]

In 1965, the Engineers Joint Council for Professional Development (the council is composed of the nine major engineering societies) established a permanent committee on continuing education

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[264]Harold I. Abramson, "How One Professional Society Provides Continuing Education," Engineering Education, Vol. 67, No. 4 (January, 1977), p. 287.

[265]Engineer's Council for Professional Development, Report of the Joint Advisory Committee, Continuing Engineering Studies (New York: April, 1965).

with a full time director.[266]

At the first conference (1966) of the Continuing Engineering Studies (CES) Division of the American Society for Engineering Education (ASEE), it was stated that a company's responsibility to its employees includes making available the opportunity to grow; this includes an atmosphere which encourages a continuance of learning.

In 1968, the American Society for Engineering Education (ASEE) published a landmark comprehensive report entitled, "Goals of Engineering Education."[267] The report was the result of five (5) years of intensive surveys and analysis, and the accumulation of a large mass of data from other professions by the Goals of Engineering Education Committee of ASEE. The purpose of the report was to evaluate current programs, practices, and proposals in the light of their applicability ten or twenty years from then. On the basis of this report, the Committee proposed some broad goals for future engineering education. The report discussed the importance of continuing education as a distinct category in the engineering curriculum. It went on to say that the recommendations in the report were more than dealing with the problem of obsolescence, it was also a matter of establishing and maintaining an entirely new dimension of personal development throughout the engineer's

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[266]American Society for Engineering Education Goals Committee, "Goals of Engineering Education," Journal of Engineering Education, Vol. 58 (January, 1968), pp. 366-446.

[267]Ibid.

career (lifelong learning). During that same year, the British Institution of Chemical Engineers began a study of continuing engineering education in the field of Chemical Engineering.

"In May, 1971, a Task Committee on Licensing of the Wisconsin Society of Professional Engineers was appointed to examine professional engineers licensure, and to recommend requirements for and methods of engineering licensure that best met the needs of the public. . . . C. Allen Wortley was appointed chairman of the Committee."[268] The committee report which was completed a year later recommended among other things " . . . that demonstration of current competence is a necessary requirement in the public interest. Accordingly, it should be included in the Board rules governing renewal of licenses. Demonstration can be accomplished by review of the engineer's continuing education record or by re-examination."[269]

In the summer of 1971, Dean Alfred Ingersoll, P.E. of UCLA, recommended a Certificate of Current Competency for California engineers. He proposed that licensed Professional Engineers voluntarily take a single-day exam once every five to seven years to demonstrate current competency.[270]

October, 1971, Senator George Deukmejian of Long Beach introduced to the California Senate, Senate Resolution 218 which asked

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[268]Robert D. Reckert, "Trends in Professional License Renewal Requirements" (speech presented at the 1974 ASCE Annual and Environmental Engineering Convention, Kansas City, Missouri, October 21-25, 1974).

[269]Ibid. [270]Ibid.

every licensing board "to submit by June 1, 1972 a plan by which licensees of that particular board would demonstrate that they were keeping current in their field as a condition of license renewal. The boards were asked to consult with their constituent trade associations and professional societies in order to gain the widest possible consideration from their licensees in formulating their responses."[271] The reports were requested from all boards by June, 1972.[272]

In 1972, UNESCO published the Proceedings of the FEANI-UNESCO Seminar entitled, "The Continuing Education of Engineers." This report looked at the problem of continuing engineering education from an international perspective.[273]

In 1973, a study committee of the Iowa Legislature was formed to examine the procedures and practices of Iowa registration and licensing boards for the various professions and occupations. At committee request, the Iowa legislature directed each board including the Iowa State Board of Examining Engineers, to report to them no later than January 14, 1974 on procedures to

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[271]Alfred C. Ingersoll, "Continuing Education as a Requirement for Renewal of Professional License" (unpublished manuscript).

[272]Charles R. Nelson, "A Law Against Technical Obsolescence," Chemical Engineering Progress, Vol. 70, No. 3 (March, 1974), p. 29.

[273]Sir Frederick Warner and Dr. R. Edgeworth Johnstone, Studies in Engineering Education: The Continuing Education of Engineers, Proceedings of the FEANI-UNESCO Seminar (Helsinki, 1972), 154 pp.

assure continuing professional and technical development of persons registered or licensed to practice.[274]

In October, 1973, Leo Ruth, chairman of the American Society of Civil Engineers' National Committee on Registration of Engineers, sent a letter to the California State Board of Registration for Professional Engineers in which he recommended that professional development activities, while necessary, should be voluntary, not mandatory.[275]

A Joint Task Force on Qualifications for Continuing Practice was appointed by the Iowa Engineering Society and the Society of Land Surveyors of Iowa. The Task Force included professionals in private practice, government, education, and industry. The report was submitted to the respective Society officers for approval on December 19, 1973, and received the unanimous approval of both. It was then submitted to the State Board of Engineering Examiners on January 3, 1974.[276]

The National Society of Professional Engineers (NSPE) was asked by two of its state societies, Oregon and Wisconsin, to develop a position on the relicensing programs containing continuing education requirements. The NSPE Registration Committee was asked to study the situation and develop the NSPE position. The

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[274]Richard H. Stanley, "Qualifications for Continuing Practice," Consulting Engineering (December 20, 1973).

[275]Robert D. Reckert, "Trends in Professional License Renewal Requirements" (speech presented at the 1974 ASCE Annual and Environmental Engineering Convention, Kansas City, Missouri, October 21-25, 1974).

[276]Ibid.

Registration Committee met on December 3, 1973, in Chicago. On December 4, NSPE called for an intersociety meeting to discuss the issue.[277]

By 1974, several national engineering societies were beginning to formulate proposals for voluntary participation by their members in programs which would lead to certification of those who completed the minimum requirements.

Kentucky and Ohio began studying the issue of continuing engineering education in 1975.

On Kentucky 17, 1975, the following recommendations of the Task Force on Qualification for Continuing Practice were made to the Kentucky Society of Professional Engineers (KSPE) Board of Directors:

> "1. The Task Force recognizes that KSPE must continue to support any and all efforts to assure the public health, safety, and welfare by maintaining competence of engineering professionals; however, we do not at this time recommend additional requirements for relicensing. Since the number of licensed engineers is as yet a small fraction of the total practicing in our state, we feel that it would be in the better interests of the public for KSPE to first work toward changes in the Kentucky engineering registration law to severely limit the current exemptions to registration as a professional engineer.
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> 2. After recommendation #1 is accomplished, KSPE should work toward further changes in the Kentucky engineers' registration law to assure continued competence of registered professional engineers. This should include

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[277] Newsletter #1, Chemical and Petroleum Engineering Department, School of Engineering, University of Pittsburgh, 1973.

procedures for review of qualifications for relicensing.

3. Establish a KSPE standing committee to set up guidelines and establish a timetable for implementation of recommendation #2. This committee should also conduct workshops, seminars, and surveys to communicate information to all interested engineers whether they are currently registered or not, as well as to determine the best course of action to implement #2."[278]

At the same time, all land surveyors and registered engineers in Kentucky were invited to participate in a pilot program of continuing education--professional development. This program was sponsored by the American Congress of Surveying and Mapping.[279]

Wisconsin's Society of Professional Engineers recommended that its members consider doing 40 hours of continuing education over a two-year period; that this be a voluntary effort, and that beginning June 30, 1976, an annual register be published.[280]

In 1976, Minnesota passed a law enabling that state's board to require continuing professional training for re-certification. The sole purpose of this law was "to improve professional skills and the requirements may not exceed a total of fifty (50)

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[278]Victor C. Fender, "Minutes and Correspondence," KSPE Task Force on Qualifications for Continuing Practice, George A. Scott, chairman (unpublished manuscript).

[279]"Require Continuing Education for P.E.'s?" Civil Engineering--ASCE (January, 1975), p. 88.

[280]Wisconsin Society of Professional Engineers, "Continuing Professional Engineer Development," draft proposal (unpublished manuscript).

clock hours of attendance annually." At this time, however, the Minnesota board did not contemplate imposing such a requirement for registrants.[281]

By 1977, the following technical societies had made continuing education programs available to their members on a voluntary basis: the American Association for Cost Engineers (AACE), the American Society for Quality Control (ASQC), Florida Society of Professional Engineers (FSPE), New Jersey Society of Professional Engineers (NJSPE), the Society of Manufacturing Engineers (SME), and the Wisconsin Society of Professional Engineers (WSPE).[282]

The following societies' continuing education programs were in the developmental stage: the American Congress of Surveyors and Mappers (ACSM), the American Society of Mechanical Engineers (ASME), the Institute of Electrical and Electronic Engineers (IEEE), and the Ohio Society of Professional Engineers (OSPE).[283]

Mandatory Continuing Engineering Education

In October, 1973, the Los Angeles Section of the American Society for Civil Engineers wrote to the California State Board of Registration for Professional Engineers as follows: "We believe

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[281]William E. Farrar and Thomas F. Talbott, Can Renewal of Engineering Registration Assure Continuing Minimum Competency? ASEE Proceedings, 1977 College Industry Education Conference (San Antonio, Texas, January 18-21, 1977), p. 199.

[282]Ibid., pp. 193-194.

[283]Ibid.

professional development should be mandatory for those civil engineers who continue to use their license privileges. . . . We strongly recommend that your Board move ahead with professional development as a requirement for license renewal . . ."[284]

By 1974, California had adopted a Resolution establishing a study program which would eventually lead to legislation requiring evidence of professional development for re-registration.[285]

By 1974, there were two engineering societies requiring continuing education: Consulting Engineers[286] and the Society of Manufacturing Engineers, headquartered at Dearborn, Michigan.[287]

In Florida, a proposal for mandatory continuing education for engineers was initiated by "a few of the officers of the professional engineering and land surveying societies with the assistance of a paid professional legislative bill drafter."[288]

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[284]Robert D. Reckert, "Trends in Professional License Renewal Requirements" (speech presented at the 1974 ASCE Annual and Environmental Engineering Convention, Kansas City, Missouri, October 21-25, 1974).

[285]Victor C. Fender, "Minutes and Correspondence," KSPE Task Force on Qualifications for Continuing Practice, George A. Scott, chairman (unpublished manuscript).

[286]Letter, Donald A. Buzzell, Executive Director of Consulting Engineers Council of the United States to Walker B. Reynolds, Jr., Executive Director of Consulting Engineers Council of Kentucky, April 17, 1974.

[287]"Should Continuing Education be Mandatory?" Civil Engineering--ASCE (January, 1974), p. 70.

[288]Robert D. Reckert, "Trends in Professional License Renewal Requirements" (speech presented at the 1974 ASCE Annual and Environmental Engineering Convention, Kansas City, Missouri, October 21-25, 1974).

By virtue of a law passed in 1977 which became effective January 1, 1978, Iowa became the first state in the nation to have a mandatory continuing education requirement for professional engineers.[289] "Under the proposed implementing rules, each registered professional engineer or land surveyor in the state will effective January 1, 1980, have to meet certain minimum professional development requirements as a condition to his or her license renewal."[290]

Continuing Engineering Education--Professional Attitudes

In 1974, the Board of Direction, American Congress on Surveying and Mapping, requested that its Continuing Education Committee study the question of "re-certification" for its members. Two major issues emerged: the questions of (1) re-examination and (2) whether or not any such program should be mandatory or voluntary.[291]

The test population was the land surveyors registered in Kentucky (almost 2,000 from over thirty states).[292] Results of the pilot "test" questionnaire indicated that the majority was in

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[289]John M. Liittschwager, Mandatory Continuing Education for Iowa Professional Engineers, ASEE Annual Conference Proceedings (1978), p. 237.

[290]Ibid.

[291]David K. Blythe, A Plan for Voluntary Re-Certification of the Qualifications of Land Surveyors for Continuing Practice, ASEE Proceedings, 1977 College Industry Education Conference (San Antonio, Texas, January 18-21, 1977), p. 195.

[292]Ibid.

favor of a voluntary program for re-certification.[293]

The lack of a common acceptable base for defining and measuring continuing education has created a void in this educational area.[294] To remedy this situation, a comprehensive survey involving a large majority of the major societies was undertaken.[295]

Survey Methodology.--Approximately one hundred and eighty (180) names were obtained from the combined mailing lists of the Engineers Joint Council (EJC), the American Society of Engineering Education (ASEE), the Continuing Education Division, and the Council of Engineering and Scientific Society Executives (CESSE). Because of the lack of a central listing and in many cases the lack of individuals responsible for continuing education, it was necessary to query the executive director of each association and also the individual responsible for the continuing education program. The survey was designed to provide the following information:

- Name and address of the association.
- Name, title, and location of the responsible individual and total staff.
- Total membership and qualifications for joining.
- Status of the continuing education program.

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[293]Ibid., p. 196.

[294]Stanley M. Greenwald, The ASME Approach--Survey of Professional Society of Continuing Education, Proceedings--1977 (Frontiers in Education Conference, San Antonio, Texas, January 18-21, 1972), p. 195.

[295]Ibid.

- Philosophy and goals.
- Location and duration of courses, program, and sponsors.
- Number of courses and attendees.
- Type of recognition used for participants in continuing education.
- Utilization of Continuing Education Units (CEU).
- Continuing education formats.[296]

Survey Results.--The survey yielded fifty-seven (57) responses from all of the major engineering and technical societies in the United States and Canada. Of this number, thirty-nine (39) indicated that a continuing education program is currently in operation or in the developmental stages. Eighteen (18) societies answered that they do not sponsor a program; however, of this number, six (6) societies responded that a program is in the planning stages and four (4) indicated the possibility of planning a program. Thus, of the total respondents, eighty-six per cent (86%) indicated programs in operation, development, or planning stages.

The respondents that indicated a continuing education program in the operation or developmental stage, represented approximately one million members. Engineers, scientists, and other technical personnel often join a multitude of organizations to foster their own awareness of technological innovations. Their

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[296]Ibid.

overlapping memberships should be considered in analyzing the results of this survey. The four major engineering societies, the American Society of Mechanical Engineers (ASME), the American Society of Civil Engineers (ASCE), the American Institute of Chemical Engineers (AIChE), and the Institute of Electrical and Electronic Engineers (IEEE), represent almost 350,000 individuals. Because these are the basic societies in the field of engineering, their numbers do not hold duplicate memberships among these societies, although they may hold membership in the specialized societies, i.e. American Society for Quality Control. Combining the membership of the basic societies with one-third of the remaining total, we have an engineering and technical population of about 565,000 represented by this survey. This number is approximately fifty per cent (50%) of the total figure for engineers in the United States. Clearly, we can conclude that approximately 50% of the engineers in the United States hold memberships in societies that are conducting or developing continuing education programs.[297]

Continuing Engineering Education--Summary

In the late 1940's, technology began increasing at an astonishing rate. Because of rapidly changing technology, an engineering education is widely quoted as having a half-life of five years. For this reason, continuing engineering education has been recognized as an important responsibility of the profession.

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[297]Ibid., pp. 146-147.

At the first conference (1966) of the newly formed Continuing Engineering Studies (CES) Division of the American Society for Engineering Education, it was stated that a company's responsibility to its employees includes making available the opportunity to grow; this includes an atmosphere which encourages a continuance of learning.

Two years later, the American Society for Engineering Education published a landmark comprehensive report entitled, "Goals of Engineering Education." On the basis of this report, the committee proposed some broad goals for future engineering education.

During the seventies, several states and professional and technical societies were studying the issue of continuing professional education and while most argued with the concept, they also made it quite clear that continuing education should be a voluntary activity.

On January 1, 1970, Iowa became the first state in the nation to have a mandatory continuing education requirement.

Summary

Chapter II has presented a selected review of literature pertinent to this investigation about elective and mandatory continuing professional education in dentistry, law, medicine, and engineering.

One characteristic increasingly evident in continuing professional education literature is that it is no longer being

perceived as a luxury, fringe, or supplement, but an integral part of the education of the professional.

Modern technology which has produced the demand for experts, also destroys experts. Because of the stunning advances of knowledge in every field, professionals find themselves lagging behind developments in their own specialties. Increasingly, state licensure statutes and professional organizations are making continuing education a requirement for retention of professional licenses or for membership in the society.

The literature also shows an awareness on the part of the general public the need for the professional to be up-to-date.

CHAPTER III

DESIGN AND PROCEDURE

The major purpose of this study was to analyze the attitudes of faculty members in four professional schools* at the University of Louisville toward elective continuing professional education and mandatory continuing professional education. This chapter will describe the setting for the study, the research questions, the population, the instrument used, the pre-test sample, the data collection, and the statistical treatment of the data.

Setting for the Study

This section will outline (a) the community which the University serves, (b) the history of the University of Louisville, and (c) the role of continuing education in the four professional schools* in this study.

The Community Serviced by the University

Louisville was incorporated as a city in 1828, as a portage place around the falls of the Ohio River before the opening

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* The four professional schools in this study are: Dentistry, Law, Medicine, and the Speed Scientific School (the School of Engineering and Applied Science).

of the Louisville and Portland Canal in 1830. The city subsequently became an important river port for western traffic; its importance as a transportation hub increased with the arrival of the railroads in 1851.

Louisville is the leading industrial complex in the Southeast.[1] Some of the world's largest industries are located here.[2] Eighty per cent of the industrial and commerical population of the United States lives within 500 miles of Louisville and 90 million people live within one day's drive.[3]

History of the University of Louisville

The University of Louisville was the first municipal university in the nation.[4] It is an urban institution which has had close historical and legal ties with the City of Louisville and Jefferson County.

Founded in 1798 as Jefferson Seminary, it was later known as Louisville College. When it became the University of

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[1]Alice Klein, Manager of Economic Research, Louisville Area Chamber of Commerce, "Louisville, #1 Industrial Complex in the Southeast" (unpublished manuscript, Louisville Area Chamber of Commerce). [Major applicances, neoprene synthetic rubber plants, largest truck plants, largest truck plant under one roof, bathroom fixtures, air filter and dust control equipment, bourbon whiskey, paints and coatings, baseball bats and single unit hardware wholesaler.]

[2]Ibid.

[3]Carter Harrison, Manager of Urban Affairs, Louisville Area Chamber of Commerce, interview held at the Louisville Area Chamber of Commerce, Louisville, Kentucky, May, 1977.

[4]Dwayne Cox, University of Louisville Archives, interview held on Belknap Campus, University of Louisville, November, 1976.

Louisville in 1846, the University had a Medical Department. Later, in the year of 1846, a Department of Law was added and a charter to operate as a university was obtained from the Commonwealth of Kentucky. The University has functioned under that charter ever since.[5]

In 1907, the Academic Department was established and enrollment grew rapidly. The most remarkable growth at the University of Louisville occurred after 1970, when the University entered the Kentucky State System of Higher Education--a move which placed the University on sounder financial footing.

The University is made up of twelve (12) colleges and schools with a full range of graduate, professional, research, and service programs. In addition to the main Belknap Campus, the University has three small campuses in the metropolitan area. Current enollment is over 16,000 students. Enrollment is expected to reach 25,000 by 1980.[6] There are approximately 1,000 full time faculty members.

In his inaugural address in 1973, President James Grier Miller spoke of the University as being urban in viewpoint as well as location. He also spoke about the University's service to the community, the Commonwealth, and its national and international potential, explicating:

> "In the distant past, the amount of knowledge of the world was so limited that an educated person could obtain a reasonably complete overview of it. But scientific knowledge for more than a century has been doubling every decade--an exponential

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[5]Ibid.

[6]Ibid.

> growth--and other knowledge nearly as fast. Populations have been exploding and in so doing, generating more facts to be learned. We cannot cram all medical or legal knowledge into a graduate curriculum of any length, or all the arts and sciences into a lifetime of learning. Education, then, must in the future move away from the needed facts and solve problems. It must also include instruction in the appropriate use of the various adjustment processes an educated person can use to cope with the information overloads modern life forces on all of us."[7]

Major cultural institutions include the J. B. Speed Art Museum, one of the South's finest art museums; the Filson Club, with a Kentuckiana library and museum; the Kentucky Opera Association; the Louisville Orchestra; and the Rauch Memorial Planetarium at the University of Louisville.[8]

The University's Role in Continuing Education

> "Continuing Education at the University of Louisville, although an integral part of the total educational program, has always been a very decentralized operation. Each school and college carried on its continuing education program usually under the supervision of a nonimal 'director', who in turn reported to a dean. Because of the autonomy exercised by each unit, the lack of communication between units, and the failure of most units to advertise their programs adequately, little was known about the extent of activities, the personnel involved, and the number of students involved in the various programs. In addition, there were some units who gave their continuing education programs high

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[7]James Grier Miller, President of the University of Louisville, "The Uses of a University" (an address on the occasion of his introduction to the community, Friday, October 5, 1973), pp. 21-22.

[8]Reader's Digest Association, Inc., Reader's Digest 1972 Almanac and Yearbook (Pleasantville, New York), p. 274.

> priority, while others saw them of lesser importance. As a result of these various factors, the total continuing education program was an unknown quality."[9]

The Center for Continuing Education (a unit of University College*) was established on January 4, 1975. The Center coordinates programs in continuing education and is responsible for developing programs to update, retrain and enrich individuals in an assortment of occupations, and for reaching the housewife and the retired senior citizen. Upon request, the Center will also assist any other unit within the University in the development of new programs.

In the spring of 1975, The Council of Continuing Education Directors was formed. The Council was established for the following reasons:

> "(1) the desire on the part of the directors for recognition of the continuing education program;
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> (2) the desire on the part of the directors to demonstrate the magnitude of the program and to exhibit a high degree of cooperation;

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* University College also offers courses leading to certificates in various fields; the Associate in Applied Science and Associate in Arts Degrees, the B.L.S. Degree, the B.A. Degree, the B.S. Degree, and the B.S.C. Degree. Courses are offered from the curricula, undergraduate and graduate, of the College of Arts and Sciences, the School of Business, and the School of Education. The University College also maintains an outreach and extension program to provide courses off-campus in the community. These programs are designed primarily for service, information, and enrichment, rather than exclusively for credit in continuing efforts to explore and utilize the innovative potential of University resources.

[9]University of Louisville Task Force on Continuing Education, Report and Recommendations, Self-Study for the Southern Association of Colleges and Schools (Spring, 1976), p. 12.

(3) the desire to learn of all continuing education activities in the various units, specifically the how, when, and why of the programs;

(4) to make continuing education a recognized function of the university;

(5) to work on programs common to all directors; and

(6) to seek proper funding for continuing education."[10]

Council membership consists of continuing education directors from the University units offering continuing education programs. Members meet monthly to share their common concerns and exchange ideas. One tangible symbol of the cooperation is the monthly University Continuing Education Calendar which lists scheduled continuing education events for the month.

Continuing Education activities are presently conducted in nine Professional Schools at the University of Louisville. Activities in four of these schools are of particular interest to this study.

The School of Dentistry.--It has a part time director for continuing education to develop and coordinate programs. The director's staff consists of a part time secretary. Most continuing education programs are held on campus; however, undergraduate and graduate programs command top priority on space. These programs are designed to: (1) refresh, reinforce, and/or update existing knowledge and skills, and (2) to present new information techniques and skills for the practicing professional.

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[10]Ibid., pp. 12-13.

Outstanding guest faculty supplement local faculty in presentation of programs. Local faculty are not paid honoraria and participate willingly. Since the income generated from these programs is not sufficient to cover salary and operation costs, both University and federal funds are used to make up the difference.[11]

The School of Law.--Continuing Education Program planning is done by committees under the direction of a director and associate director. The Director of Continuing Legal Education is also chairman of the Louisville Bar Association's Committee on Continuing Legal Education. The programs are coordinated with the Kentucky Bar Association's central calendar of events. The latter association has a Committee on Continuing Legal Education consisting of about twenty (20) members from around the state. (Every lawyer in Kentucky must belong to the Kentucky Bar Association.)[12]

Most of the activities are planned in cooperation with the Louisville Bar Association's Committee on Continuing Education which meets periodically to make suggestions on timely subjects and possible speakers. The programs are designed with the following objectives in mind: (1) to improve the competency of lawyers to better meet the needs of the public, (2) to increase the

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[11]Ibid., p. 16.

[12]Marlin M. Volz, Professor of Law, Director of Continuing Legal Education, University of Louisville School of Law, interview held at University of Louisville's School of Law, Louisville, Kentucky, January, 1977.

efficiency of lawyers, and (3) to keep their knowledge current. The program is directed to the needs of practicing professionals whose activities involve the law. Because no budget is provided for the Continuing Education Program in the School of Law and in order to permit a registration fee sufficiently low to attract the largest possible numbers, expenses are kept down by only paying the expenses incurred by speakers and outside faculty. Occasionally, these people are paid an honorarium. Most local speakers and faculty contribute their time.

Most continuing legal education programs conducted by the Law School are held on Friday afternoons and Saturday mornings; automobile parking is available on the University's campus and lawyers are not pressed for time as earlier in the week. The University of Louisville continues to respect the gentlemen's agreement which was reached informally about sixteen (16) years ago, wherein the State of Kentucky is divided into two parts. Louisville takes the western part of the state and the University of Kentucky, the eastern portion. This arrangement makes it possible for all lawyers to be able to attend a program that meets his/her particular needs.[13]

Facilities and arrangements for the School of Law's Continuing Education efforts are usually handled by the Center for Continuing Education, with which it co-sponsors the programs. Under this arrangement, University College handles mailing,

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[13]Ibid.

registration, etc. The budget is kept at a breakeven level, to encourage wide participation by area attorneys. Registration fees go to University College's Center for Continuing Education to defray expenses.[14]

The School of Medicine.--The Continuing Education staff consists of an executive director, an assistant director, and two secretaries. This staff is responsible for program development and coordination. Program formats include course offerings, symposia, conferences, lectures, workshops, etc. to enable the attending physicians to be exposed to the latest theories and conclusions of recognized leaders in the field. Programs are designed to: (1) refresh, reinforce and/or update existing knowledge and skills, and (2) to present new information, techniques and skills. The primary objective of continuing medical education is improved patient care.

Most of the continuing education programs are held on campus; however, undergraduate and graduate programs command top priority on space. For these programs, the Medical School uses voluntary faculty and outstanding guest faculty. Since income generated from programs does not cover salary or operational costs, the difference is made up with other funds.[15]

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[14]Ibid.

[15]Gerald Swim, Executive Director of the Office of Continuing Education for the University of Louisville's School of Medicine and the Louisville Area Continuing Medical Education Consortium, Inc., interview held in the Office of Continuing Medical Education, January, 1977.

Speed Scientific School.--The School of Engineering and Applied Science Continuing Education Program is developed and coordinated by the Office of Professional Development. This office is headed by a director and staffed by an assistant director and a part time secretary. The director is also Assistant Dean for Student Affairs and the assistant director devotes full time service to recruiting minority students for the School and counseling freshman level students. There is no budget for programs and most of the offerings merely breakeven or reflect a financial loss. Most programs are held off-campus. None of the faculty have an assigned workload in continuing education. Those who do participate, do so voluntarily.

Research Questions

In order to carry out the research, the following questions provided the guidelines:

1. Is there a relationship between the attitude of faculty members on elective continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?

2. Is there a relationship between the attitude of faculty members on mandatory continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?

3. Is there a difference in the overall attitude of the faculty members toward elective continuing professional education and mandatory continuing professional education?

4. Is there a difference in the overall attitude of the faculty members in the four schools toward elective continuing professional education and mandatory continuing professional education?

5. Do faculty attitudes toward elective continuing professional education differ according to school?

6. Do faculty attitudes toward mandatory continuing professional education differ according to school?

7. What per cent of their time do faculty want to be involved in elective and mandatory continuing professional education?

8. For those professionals interested in elective continuing professional education, what type of involvement would they prefer?

9. For those professionals interested in mandatory continuing professional education, what type of involvement would they prefer?

The Population

Two hundred and eighty-one (281) full time faculty members in the four professional schools* being investigated were given questionnaires. The following sections will describe the faculty members selected for this study:

The School of Dentistry.--The D.M.D. degree was set as the minimum requirement for participation. Faculty members with Ph.D.'s but without the D.M.D. degree were excluded from this study. Fifty-six (56) faculty members met this requirement (total full time faculty members--65).

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* The four schools inthis study are: Dentistry, Law, Medicine, and the Speed Scientific School (the School of Engineering and Applied Science).

The School of Law.--The L.L.B. or J.D. degree was set as the minimum requirement of faculty members selected from this school. Twenty-two (22) faculty members met this requirement (total full time faculty members--30).

The School of Medicine.--The M.D. degree was set as the minimum educational requirement for faculty members selected from this school. One hundred and fifty-seven (157) members met this requirement (total full time faculty members--254 M.D.'s and Ph.D.'s).

The Speed Scientific School.--The Masters of Engineering (M.Eng.) was set as the minimum requirement for the faculty members selected from this school. Forty-six (46) faculty members met this requirement (total full time faculty members--63; this number includes mathematicians, physicists, etc. with Masters and/or Ph.D. degrees).

The Directors of Continuing Education in the Schools of Dentistry, Law, and Medicine agreed to assist with the study. In the Speed Scientific School, departmental chairmen assisted.

In order to gather the information to answer the research questions being investigated by this study, it was necessary to prepare a special questionnaire. This specially prepared generalized attitudinal scale was called the "B-Survey Toward Continuing Professional Education and Mandatory Continuing Professional Education." The specially prepared attitudinal scale was administered during the months of April, May, and June, 1977.

A cover letter was attached to each questionnaire. The cover letter told the respondent of the nature of the study and the degree of confidentiality that would be maintained (Appendix B).

Twenty-two (22) questionnaires were given to the Director of Continuing Education at the School of Law for distribution to the faculty members. The completed questionnaires were sent to Speed Scientific School's Office of Professional Development.

Forty-six (46) questionnaires were given to the departmental chairmen at the Speed Scientific School for faculty distribution.

The Directors of Continuing Education at the School of Dentistry and the School of Medicine provided this investigator with complete faculty mailing lists. The first mailing was sent to the Dental School faculty members April 20, 1977. The School of Medicine faculty members were mailed questionnaires May 2, 1977. A second mailing was made June 2, 1977 to non-respondents. Table 3.1 describes the overall response return.

Description of the Instrument

To conduct this study, it was necessary to construct a questionnaire since none was found which would do the specific job required for this study. Standard techniques for the development of attitude scales were used to determine the items for this test.[16]

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[16]Walter R. Borg and Meredith D. Gall, Educational Research--An Introduction (2nd ed.; New York: David McKay Company, Inc., 1971), pp. 183-184.

Table 3.1.--Number and percentages of responses by professional school.

School	N	Responses	% of Responses	% of Total Sample
Dentistry	56	40	71.4	19.6
Law	22	18	81.8	8.8
Medicine	157	106	67.5	52.0
Speed Scientific School	46	40	86.9	19.6
Total	281	204	72.6	100

Demographic characteristics on sex, age, and academic rank of the respondents are shown in Figures 3.1, 3.2, and 3.3.

Sex	N	%
Male	181	88.7
Female	13	6.4
No Response	10	4.9
Total	204	100

Figure 3.1.--Characteristics of the respondents by sex.

Age	N	%
20-29	8	3.9
30-39	79	38.7
40-49	55	27.0
50-59	35	17.0
60 and above	8	3.9
No response	19	9.3
Total	204	100

Figure 3.2.--Characteristics of the respondents by age.

Academic Rank	N	%
Professor	61	29.9
Assoc. Professor	53	26.0
Asst. Professor	70	34.3
Lecturer	15	7.4
No Response	5	2.5
Total	204	100

Figure 3.3.--Characteristics of the respondents by academic rank.

The questionnaire is divided into five parts: Part I asks for demographic data including professional school, age, academic rank, and years of professional employment. Part II asks about the respondent's exposure to continuing professional

education and mandatory continuing professional education. Part III is a Likert-type forced choice scale in which the faculty member checks one of four possible responses to phrases about continuing professional education and mandatory continuing professional education. Part IV, the typological section, contains items about involvement or non-involvement in continuing professional education and mandatory continuing professional education. See Appendix A for the questionnaire. Part V provides space for the respondents to make comments about the questionnaire.

Validation of the Instrument (Pre-Testing the Questionnaire)

After a most helpful discussion with this investigator's doctoral guidance committee, and after seriously considering the various methods that could be employed to collect data for this dissertation, it was determined that the most effective and practical way to secure accurate data for the proposed study was to develop a questionnaire that would measure attitudes about continuing professional education.

In order to locate ambiguities in the questionnaire and to test the instrument's face validity, it was necessary to pre-test the instrument.

Borg and Gall suggested the following: " . . . The number of cases in the pre-test sample need not be large. If the subjects are taken from a well-defined professional group, such as school superintendents, as few as twenty cases will be sufficient."[17]

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[17]Ibid., p. 203.

(See Figures 3.1, 3.2, 3.3, and 3.4.)

The first step in validating the instrument was to select twenty (20) professionals similar to the research subjects (Figure 3.4).

The second step was to mail questionnaires to the twenty participants who indicated an interest in the study (Figure 3.7). A 100% response return was received within ten days after the mailing, and all comments and suggestions were incorporated in the final questionnaire.

An analysis of the pre-test response helped determine the methods to be used for summarizing the data.

After the improvements were made in the final questionnaire, this investigator proceeded with the administration of the instrument to the selected faculty members in the four professional schools.

Sex	N	%
Male	19	95
Female	1	5
Total	20	100

Figure 3.4.--Demographic data for the questionnaire (pre-test sample) by sex.

Age	N	%
20-29	0	0
30-39	3	15
40-49	9	45
50-59	5	25
60 and above	3	15
Total	20	100

Figure 3.5.--Demographic data for the questionnaire (pre-test sample) by age.

Education	N	%
Baccalaureate	2	10
Masters	3	15
Doctoral	9	45
Professional Degrees	6	30
Total	20	100

Figure 3.6.--Demographic data for the questionnaire (pre-test sample) by highest earned degree.

Profession	N	%
Clergy	2	10
Dentistry	2	10
Dietetics	1	5
Education (Secondary)	2	10
Education (Higher)	6	20
Engineers	2	10
Law	3	15
Medicine	2	10
Total	20	100

Figure 3.7.--Demographic data for the questionnaire (pre-test sample) by profession.

Data Collection

The first step in the data collection was to secure permission to conduct the study. Permission was sought from the Vice President of Academic Affairs. Permission was also sought from the Directors of Continuing Education in the four professional schools. Approval was granted in April, 1977.

Statistical Treatment of the Data

Upon completion of the survey, the data was coded and punched on data control cards for statistical treatment by Michigan State University's CDC 6500 computer. Mr. Leonard Bianchi served as research consultant.

In order to measure respondents' attitude toward elective continuing professional education, their responses on Part III-A of the questionnaire (Appendix A) were coded from 1 (strongly agree) to 4 (strongly disagree) on questions 11 to 21. Because of the wording of questions 19 to 21, the coding for these questions was reversed. An overall average value was computed from these and used as a measure of their attitudes. The same procedure was used on Part III-B of the questionnaire to measure each respondent's attitude toward mandatory continuing professional education.

Pearson's Product Moment Correlation was used to see if there was a relationship between the respondents' attitude toward elective continuing professional education and their age, years of professional service prior to the University of Louisville, and years of professional service at the University of Louisville.

The same procedure was used to see if these relationships existed for mandatory continuing professional education.

An analysis of covariance (with years of professional service at the University of Louisville and years of professional service prior to the University of Louisville being covaried out) was used to find if differences existed between the respondents' attitudes toward elective continuing professional education and mandatory continuing professional education. Two analyses of covariance, with the same two factors (years of professional service at the University of Louisville and years of professional service prior to the University of Louisville) being covaried out, were used to find if there was a difference between the four schools' attitudes on

elective continuing professional education and mandatory continuing professional education.

A randomized block design was used to find if there were any differences among the four schools on their overall attitude toward continuing professional education.

The subjects' attitudes toward both elective continuing professional education and mandatory continuing professional education were examined to see if there were significant differences between subjects' attitudes about elective continuing professional education and mandatory continuing professional education, and to see if there was an interaction between school and type of continuing professional education (elective continuing professional education and mandatory continuing professional education).

The amount of involvement of elective continuing professional education was analyzed by school; the amount of involvement in mandatory continuing professional education was also analyzed by school and finally, involvement in both elective continuing professional education and mandatory continuing professional education was analyzed by school.

An analyses of how the faculty members wanted to be involved and where they wanted to be involved in elective continuing professional education and mandatory continuing professional education was done by school.

Summary

The purpose of this chapter has been to describe the procedures and instrumentation to meet the objectives of the study. The population was described and means of selecting the sample was discussed. The development of the questionnaire was described. Finally, methods of data collection and analysis were presented.

CHAPTER IV

ANALYSIS OF THE DATA

The demographic portion of the questionnaire was discussed in Chapter III. Chapter IV will analyze the data as it relates to the attitudes of the four groups toward elective continuing professional education and mandatory continuing professional education and whether or not the respondents wish to be involved in elective continuing professional education or mandatory continuing professional education.

This investigator will use the shorter name, Speed or Speed School when referring to the Speed Scientific School, the School of Engineering and Applied Science in the tables in this chapter.

Research Questions One and Two

> Is there a relationship between the attitude of faculty members on elective continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?
>
> Is there a relationship between the attitude of faculty members on mandatory continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?

The Pearson product-moment correlation was used to determine if there was a relationship between the faculty members' attitudes on continuing professional education [elective continuing professional education (ECPE) and mandatory continuing professional education (MCPE)] and the following variables: age, years of professional employment at the University of Louisville, and years of professional employment prior to coming to the University of Louisville. The product-moment correlation was selected because it is subject to a smaller standard error than other techniques.[1]

A significant relationship was found between the respondents' attitude toward mandatory continuing professional education and age, professional service at the University of Louisville and professional service prior to coming to the University of Louisville.

A significant relationship was also found between the respondents' attitude toward elective continuing professional education and age (see Table 4.1).

Research Questions Three and Four

> Is there a difference in the overall attitude of the faculty members toward elective continuing professional education and mandatory continuing professional education?
>
> Is there a difference in the overall attitude of the faculty members in the four schools toward elective continuing professional education and mandatory continuing professional education?

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[1]Walter R. Borg and Meredith D. Gall, Educational Research--An Introduction (2nd ed.; New York: David McKay Company, Inc., 1971), p. 327.

Table 4.1.--Correlation between ECPE, MCPE and age; years of service at the University of Louisville and years of service prior to the University of Louisville.

Variable	ECPE	MCPE
Age	r = 0.12 p = 0.05	r = 0.14 p = 0.028
Years of service at the University of Louisville	r = 0.04 p = 0.266	r = 0.15 p = 0.015
Years of service prior to the University of Louisville	r = 0.07 p = 0.166	r = 0.14 p = 0.020

In order to answer research questions three and four, a randomized block design analysis of variance was used.

A significant difference was found between the two attitudinal measures.

A significant difference was also found between the four schools in their overall attitude toward continuing professional education.

An interaction between the attitudinal measure was found (Table 4.2 and Figure 4.1). The Medical School and Speed School respondents' felt more strongly toward ECPE than MCPE. The Dental School respondents' were in the same direction but were more positive. The Law School respondents' were slightly more in favor of MCPE than ECPE (Figure 4.1).

Table 4.2.--Randomized block analysis of variance.

Source of Variation	DF[a]	SS[b]	MS[c]	F
Schools (S)	3	4.43	1.48	4.70[d]
Subjects within schools (SWS)	200	62.82	0.314	
Attitudinal Measures (A)	1	20.23	20.23	92.30[d]
A x S	3	3.99	1.33	6.08[d]
A x SWS	200	43.84	0.22	
Total	407	135.32		

[a]DF - Degrees of Freedom.

[b]SS - Sum of Squares.

[c]MS - Mean of Squares.

[d]$p < 0.05$.

Note: Since the four schools have unequal numbers, and an interaction was found, nothing can be said about the main effects.

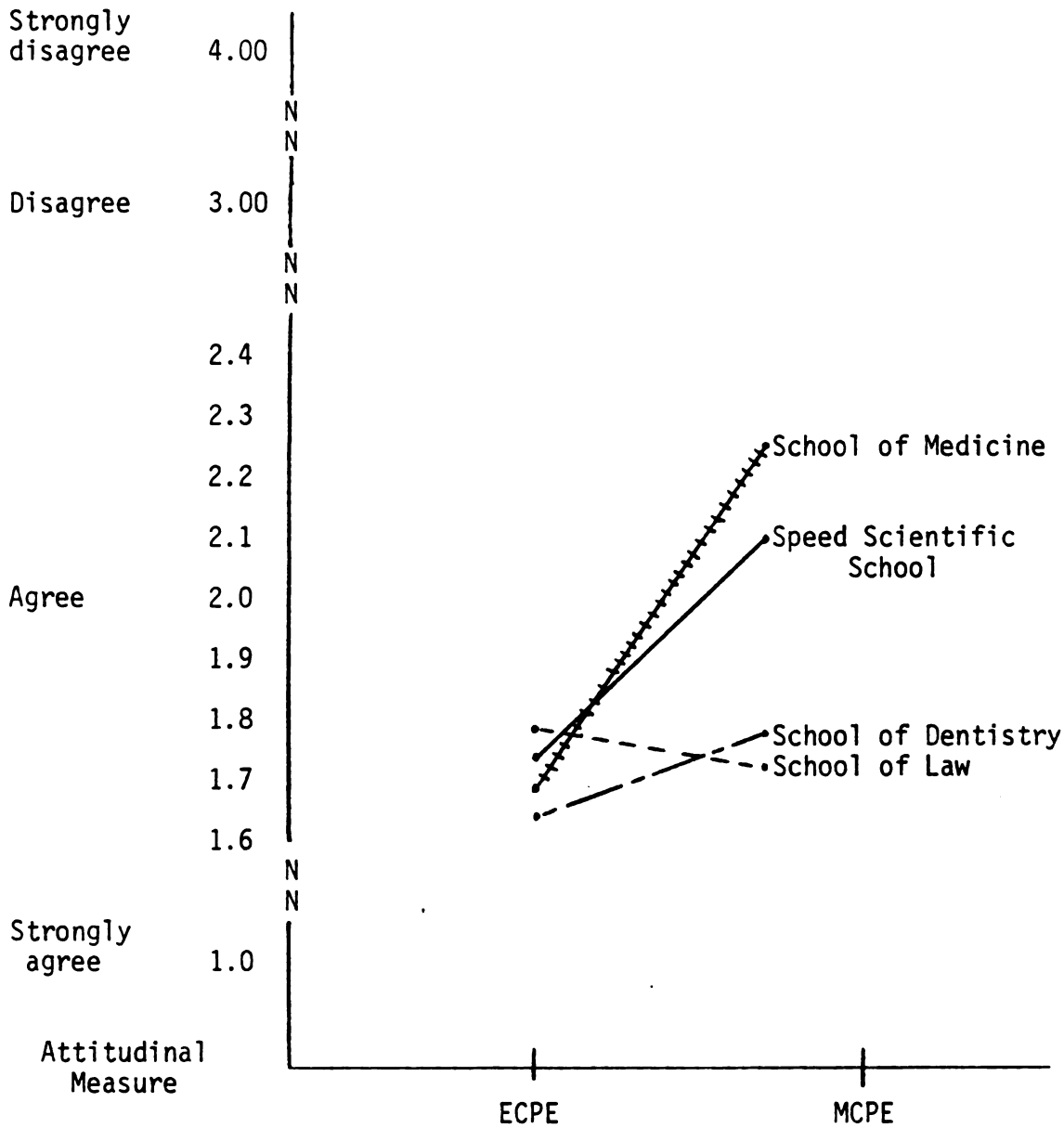

Figure 4.1.--Means of attitudinal measure by school.

Research Questions Five and Six

Do faculty attitudes toward elective continuing professional education differ according to school?

Do faculty attitudes toward mandatory continuing professional education differ according to school?

In order to see if the four schools differ on their attitudes toward ECPE, an Analysis of Covariance was done using years of professional service at the University of Louisville and years or professional services prior to the University of Louisville as the covariates. No significant relationship between the covariates and the schools was found on this measure ($F = 0.492$, N.S.).

The Analysis of Covariance found no significant difference between the four schools on their attitude toward ECPE (see Table 4.3).

Table 4.3.--Analysis of Covariance of the four schools' attitudes toward ECPE, using "years of professional service at the University of Louisville" and "years of professional service prior to the University of Louisville" as covariates.

Source of Variation	DF[a]	SS[b]	MS[c]	F
The Four Groups	3	0.72	0.24	1.78
Residual	188	25.45	0.13	

[a]DF - Degrees of Freedom.

[b]SS - Sum of Squares.

[c]MS - Mean of Squares.

The same analysis was done to see if the four schools differed on their attitudes toward MCPE. A significant relationship was found between the two covariates and the schools on this attitude measure ($F = 3.50$, $P < .05$). The Analysis of Covariance found significant differences between the four schools (see Table 4.4).

Table 4.4.--Analysis of Covariance of the four schools' attitudes toward MCPE, using "years of professional service at the University of Louisville" and years of professional service prior to the University of Louisville" as covariates.

Source of Variation	DF[a]	SS[b]	MS[c]	F
The Four Groups	3	8.37	2.79	7.13[d]
Residual	188	73.56	0.39	

[a]DF - Degrees of Freedom.

[b]SS - Sum of Squares.

[c]MS - Mean of Squares.

[d]$p < 0.05$.

By using Scheffé's post hoc test, it was found that the mean of the Medical School faculty was significantly higher than the means of the faculties of the School of Dentistry and the School of Law (Table 4.5).

Table 4.5.--Scheffé's post hoc test of all pairwise comparisons of the MCPE Attitude Measure of the four schools.

$\bar{X}_y$ \ $\bar{X}_z$	(X_1) Medicine	(X_2) Speed	(X_3) Dentistry	(X_4) Law
Medicine (X_1)	---	0.12	0.43*	0.49*
Speed (X_2)	---	---	0.31	0.37
Dentistry (X_3)	---	---	---	0.06
Law (X_4)	---	---	---	---

Significance was tested in the following manner:

$\bar{X}_1$ = Medical School Mean = 2.29

$\bar{X}_2$ = Speed School Mean = 2.17

$\bar{X}_3$ = Dental School Mean = 1.86

$\bar{X}_4$ = Law School Mean = 1.80

$$\bar{X}_1 - \bar{X}_2 = \sqrt{(3)\ (2.65)}\ \sqrt{0.391\ \left(\frac{1}{40} + \frac{1}{106}\right)} = 0.33$$

$$\bar{X}_1 - \bar{X}_3 = \sqrt{(3)\ (2.65)}\ \sqrt{0.391\ \left(\frac{1}{106} + \frac{1}{40}\right)} = 0.33$$

$$\bar{X}_1 - \bar{X}_4 = \sqrt{(3)\ (2.65)}\ \sqrt{0.391\ \left(\frac{1}{18} + \frac{1}{106}\right)} = 0.45$$

$$\bar{X}_2 - \bar{X}_3 = \sqrt{(3)\ (2.65)}\ \sqrt{0.391\ \left(\frac{1}{40} + \frac{1}{40}\right)} = 0.39$$

$$\bar{X}_2 - \bar{X}_3 = \sqrt{(3)\ (2.65)}\ \sqrt{0.391\ \left(\frac{1}{18} + \frac{1}{40}\right)} = 0.50$$

$$\bar{X}_3 - \bar{X}_4 = \sqrt{(3)\ (2.65)}\ \sqrt{0.391\ \left(\frac{1}{40} + \frac{1}{18}\right)} = 0.50$$

Research Question Seven

> What per cent of their time do faculty want to be involved in elective and/or mandatory continuing professional education?

The amount of involvement in elective continuing professional education (ECPE) in which the respondents indicated interest was analyzed by schools (see Table 4.6). Approximately 24.5% of the total sample indicated no interest in any of the aspects of elective continuing professional education (ECPE), while 9% indicated interest in all five (5) aspects of it. The five aspects were: planning, research, evaluation, advisory capacity, and teaching.

Table 4.6.--Interest in involvement in aspects[a] of ECPE.

	Dentistry		Law		Medicine		Speed		Total	
	N	%	N	%	N	%	N	%	N	%
No interest	7	17.5	10	55.6	23	21.7	10	25.0	50	24.5
Interest in 1 aspect[a]	7	17.5	4	22.2	18	17.0	7	17.5	36	17.6
Interest in 2 aspects	9	22.5	0	0	19	17.9	9	22.5	37	18.1
Interest in 3 aspects	4	10.0	0	0	11	10.4	6	15.0	21	10.3
Interest in 4 aspects	8	20.0	4	22.2	27	25.5	2	5.0	41	20.1
Interest in all 5 aspects	5	12.5	0	0	8	7.5	6	15.0	19	9.3
Total	40	100	18	100	106	100	40	100	204	100.0

[a]The five (5) aspects were: planning, research, evaluation, advisory capacity, and teaching.

The amount of involvement in mandatory continuing professional education (MCPE) in which the respondents indicated interest was analyzed by schools (see Table 4.7). Some 45.6% of the total sample indicated no interest in any of the aspects of mandatory continuing professional education (MCPE), while 5.9% indicated interest in all five (5) aspects of it. The five aspects were: planning, research, evaluation, advisory capacity, and teaching.

In general, 22.5% of the sample indicated no interest in both ECPE and MCPE, while 3.9% indicated interest in all aspects of both.

Table 4.7.--Interest in involvement in aspects[a] of MCPE.

	Dentistry		Law		Medicine		Speed		Total	
	N	%	N	%	N	%	N	%	N	%
No interest	13	32.5	12	66.7	47	44.3	21	52.5	93	45.6
Interest in 1 aspect[a]	9	22.5	3	16.7	17	16.0	9	22.5	38	18.6
Interest in 2 aspects	5	12.5	0	0	10	9.4	5	12.5	20	9.8
Interest in 3 aspects	4	10.0	0	0	6	5.7	3	7.5	13	6.4
Interest in 4 aspects	6	15.0	3	16.7	18	17.0	1	2.5	28	13.7
Interest in all 5 aspects	3	7.5	0	0	8	7.5	1	2.5	12	5.9
Total	40	100	18	100	106	100	40	100	204	100

[a]The five (5) aspects were: planning, research, evaluation, advisory capacity, and teaching.

Research Questions Eight and Nine

> For those professionals interested in elective continuing professional education, what type of involvement would they prefer?
>
> For those professionals interested in mandatory continuing professional education, what type of involvement would they prefer?

Of the subjects indicating an interest in being involved in elective continuing professional education (ECPE), 55% were willing to be involved in planning, 37% in research, 37% in evaluation, 51% in an advisory capacity, and 91% in teaching (see Table 4.8). Of the respondents interested in elective continuing professional

education (ECPE), 31% indicated interest in being involved in released time, 69% in overload pay, 63% in on-campus work, and 36% in off-campus work (see Table 4.9).

Table 4.8.--Interest in aspects of ECPE.

	Dentistry (N = 33[a])		Law (N = 8[a])		Medicine (N = 83[a])		Speed (N = 30[a])		Total (N = 154[a])	
	N	%	N	%	N	%	N	%	N	%
Planning	20	61	3	38	46	55	16	53	85	55
Research	15	45	2	25	27	33	13	43	57	37
Evaluation	14	42	4	50	30	36	9	30	57	37
Advisory Capacity	15	45	5	62	44	53	15	50	79	51
Teaching	30	91	6	75	77	93	27	90	140	91

[a]Only those respondents indicating interest in at least one aspect of involvement in ECPE (elective continuing professional education).

Table 4.9.--How and where respondents chose to be involved.

	Dentistry (N = 33[a])		Law (N = 8[a])		Medicine (N = 83[a])		Speed (N = 30[a])		Total (N = 154[a])	
	N	%	N	%	N	%	N	%	N	%
Released time	12	36	1	12	20	24	14	47	47	31
Overload pay	24	72	6	75	59	71	18	60	107	69
On-campus	23	70	4	50	48	58	22	73	97	63
Off-campus	16	48	2	25	29	35	8	27	55	36

[a]Only those respondents indicating interest in at least one aspect of involvement of ECPE (elective continuing professional education).

Of those respondents indicating an interest in being involved in mandatory continuing professional education (MCPE), 46% were willing to be involved in planning, 32% in research, 40% in evaluation, 51% in an advisory capacity, and 87% in teaching (see Table 4.10).

Table 4.10.--Interest in aspects of MCPE

	Dentistry (N = 27[a])		Law (N = 6[a])		Medicine (N = 59[a])		Speed (N = 19[a])		Total (N = 111[a])	
	N	%	N	%	N	%	N	%	N	%
Planning	15	56	2	33	29	49	5	26	51	46
Research	10	37	2	33	21	36	2	11	35	32
Evaluation	12	44	3	50	26	44	3	16	44	40
Advisory Capacity	9	33	4	67	35	59	9	47	57	51
Teaching	24	89	4	67	52	88	17	89	97	87

[a]Only those respondents indicating interest in at least one aspect of involvement in MCPE (mandatory continuing professional education).

Of the respondents interested in mandatory continuing professional education (MCPE), 25% indicated interest in being involved on a released time basis, 76% overload pay, 57% in on-campus work, and 29% in off-campus work (see Table 4.11).

Table 4.11.--How and where respondents chose to be involved.

	Dentistry (N = 27[a])		Law (N = 6[a])		Medicine (N = 59[a])		Speed (N = 19[a])		Total (N = 111[a])	
	N	%	N	%	N	%	N	%	N	%
Released time	8	30	1	7	13	22	6	32	28	25
Overload pay	20	74	6	100	46	78	12	63	84	76
On-campus	15	56	1	17	34	58	13	68	63	57
Off-campus	8	30	1	17	19	32	4	21	32	29

[a]Only those respondents indicating interest in at least one aspect of involvement in MCPE (mandatory continuing professional education).

More investigation shows that 66% of the subjects showing interest in involvement in ECPE and/or MCPE would be willing to be involved through their departments (Table 4.12). Thirty-seven per cent (37%) indicated an interest in being involved through a centralized continuing education unit, twenty per cent (20%) via a consortia, and thirty-two (32%) wished to be involved through their professional organization.

Part V of the questionnaire asked each respondent to comment on elective continuing professional education and/or mandatory continuing professional education.

The responses fell into three (3) categories: (1) general comments about continuing professional education and mandatory continuing professional education, (2) mandatory continuing professional

Table 4.12.--Area of involvement--either ECPE, MCPE, or both ECPE and MCPE.

	Dentistry (N = 33[a])		Law (N = 9[a])		Medicine (N = 86[a])		Speed (N = 30[a])		Total (N = 158[a])	
	N	%	N	%	N	%	N	%	N	%
Involved through department	18	55	8	89	56	65	23	77	105	66
Involved through centralized continuing education unit	16	48	1	11	26	30	15	50	58	37
Involved through consortia	8	24	2	22	19	22	3	10	32	20
Involved through professional organization	9	27	4	44	27	31	10	33	50	32

[a]Only those respondents indicating interest in either elective continuing professional education (ECPE), mandatory continuing professional (MCPE), or both ECPE and MCPE.

education is undesirable but necessary, and (3) mandatory continuing professional education is good for the profession.

Some typical comments expressed by the respondents were:

Category I - General comments about continuing professional education:

"In engineering technological advancements, particularly the rapid rate and the ever expanding horizon, leave the professional not much of a choice. Continuing education offers the best opportunity to keep abreast. The success, of course, depends on the

faculty, who must also keep current, and perhaps well ahead."

"Absolutely necessary, especially for those who received their terminal degree at least ten (10) years ago."

"The problems, needs, and application are too varied to be dealt with on this basis and this approach."

Category II - Mandatory continuing professional education is undesirable but necessary:

"Continuing professional education is highly desirable. Mandatory continuing professional education is not desirable but maybe a necessary evil."

"Mandatory continuing professional education is the only practical solution."

"Continuing professional education is an absolute necessity if professionals are to maintain currency. Unfortunately, I feel it must be mandatory to reach those who need it most."

"Dental education is such that the student is not completely receptive to learning while in dental school. After graduation, many perceive the need for additional skills and review in accordance with the needs of their practices. It is at this time they are most motivated, and these courses should be offered. In addition, new products, techniques, and treatments are continually added to the repertoire, and it behooves the clinician to stay abreast of these. Those 'professionals' who are too concerned with wealth and leisure to keep current make mandatory continuing education a necessity."

"In a sense, mandatory education may serve some good purpose--I seriously doubt it. However, I think patients, clients, and consumers should have the right to know what courses or fields of continuing education each practitioner has had."

Category III - Mandatory continuing education is good for the profession:

"Mandatory continuing legal education is an essential step if we want to assure the public that they are getting quality legal service."

"Mandatory continuing professional education is probably the only way the practitioner can keep really current in medical progress. Such education is the key to changing attitudes in a conservative profession."

"I think mandatory continuing professional education is a very good idea."

Table 4.13.--Respondents who replied to question five--breakdown by school.

School	N
Dentistry	15
Law	4
Medicine	25
Speed School	10
Total	54

The dentists--37.5% (N = 40) responded to Part V of the questionnaire; the lawyers--22.2% (N = 18) made comments about continuing professional education (ECPE and MCPE); the physicians--23.6% (N = 106) responded to Part V of the questionnaire, and Speed School faculty (engineers)--25% (N = 40) responded.

Table 4.14.--Breakdown of responses to Part V of the questionnaire.

Response	Dentistry	Law	Medicine	Speed	Total
General comments about ECPE and MCPE	5	0	6	4	15
MCPE undesirable but necessary	6	2	12	4	24
MCPE good for the profession	4	2	7	2	15
Total	15	4	25	10	54

Summary

Two hundred and eighty-one (281) full time faculty members were sent questionnaires. Out of that population, two hundred and four (204) faculty members responded. Chapter IV has presented an analysis of the attitudes of these faculty members. The respondents came from the following professional schools: the School of Dentistry, the School of Law, the School of Medicine, and the Speed Scientific School.

Chapter V will present a summary of the study, the conclusions, and implications for further research.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS

Purpose of the Study

The purpose of this study was to analyze the attitudes of faculty members in the School of Dentistry, the School of Law, the School of Medicine, and the Speed Scientific School (the School of Engineering and Applied Science), four professional schools at the University of Louisville, toward elective and mandatory continuing professional education. Nine research questions were investigated:

1. Is there a relationship between the attitude of faculty members on elective continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?

2. Is there a relationship between the attitude of faculty members on mandatory continuing professional education and age, years of professional experience prior to the University of Louisville, and years of professional experience at the University of Louisville?

3. Is there a difference in the overall attitude of the faculty members toward elective continuing professional education and mandatory continuing professional education?

4. Is there a difference in the overall attitude of the faculty members in the four schools toward elective continuing professional education and mandatory continuing professional education?

5. Do faculty attitudes toward elective continuing professional education differ according to school?

6. Do faculty attitudes toward mandatory continuing professional education differ according to school?

7. What per cent of their time do faculty want to be involved in elective continuing professional education and/or mandatory continuing professional education?

8. For those professionals interested in elective continuing professional education, what type of involvement would they prefer?

9. For those professionals interested in mandatory continuing professional education, what type of involvement would they prefer?

Chapter I presented an overview of the dissertation. In addition to the purpose of the study and the introduction of the research questions to be investigated, the developing awareness of the need for continuing professional education, the definition of terms, instrumentation, assumption, delimitation and significance of the problem were presented.

Review of the Literature

The selective review of the literature focused on: (1) elective continuing education in dentistry, law, medicine, and engineering; (2) mandatory continuing education in dentistry, law, medicine, and engineering, and finally on the attitudes of the professionals about continuing professional education in dentistry, law, medicine, and engineering.

1. Continuing Dental Education.--A review of continuing dental education has shown that the code of ethics of the American Dental Society has long recognized the need for a 'lifetime of learning.'

This investigation has shown that continuing dental education as it is now constituted, developed after World War II in response to the expressed needs of dentists returning from their tour of duty.

The 1964 Workshop of Dental Examiners and Educators provided the first real forum for the discussion of mandatory continuing education for dentists. Two years later, the State of New York mandated continuing education for practitioners participating in Medicaid.

Before 1969, continuing education was not required for relicensure or for maintaining membership in any state society. By 1977, eight states required continuing education for relicensure and twenty-six states were considering such a requirement. Eight societies required continuing education for membership and thirty states had voluntary systems.

Finally, this investigator discussed some attitudinal surveys about continuing dental education (elective and mandatory). An analysis of these surveys showed that most dental practitioners agreed that the continuing education <u>is necessary</u> if they were to keep up with advances in dental research and incorporate new techniques in their practice.

2. <u>Continuing Legal Education</u>.--The institutionalization of formal continuing legal education in the United States began in the early 1930's. A review of the literature shows that the programs that did occur came from the local bar associations rather than from the universities or state and national bar associations.

World War II's returning attorneys called attention to the profession's need for continuing education to bring these attorneys up-to-date.

The First (1958) and Second (1963) National Conferences on Continuing Legal Education concluded that continuing legal education was the responsibility of the state bar associations but that law schools were encouraged to participate. At the Third Conference (1967), the primary conclusion emphasized the importance of the law schools and their faculties in continuing legal education. As the legal profession examined itself, it reached some of the same conclusions earlier professionals had stated, the primary one being, that law school was just the beginning of the lawyer's education and that it simply did not prepare the attorney for life.

A review of the literature shows that most attorneys have a favorable attitude about continuing education. The disagreement is whether it should be voluntary or mandatory.

3. Continuing Medical Education.--Prior to 1930, a large percentage of physicians were graduates of proprietary schools. Few had graduate training. The major effort in continuing education was directed toward correcting the deficiencies of the physician's initial education and hopefully making him a safer practitioner.

It was not until the thirties when the last of the proprietary schools closed and concurrently graduate specialty programs began to develop so rapidly that continuing education came to be viewed as the necessary third state in what is now called, "the continuing or lifelong education of physicians."

About that time, many of the concepts that are still being considered new or radical came into being, among them the desirability of regionalization and of compulsory relicensure.

In 1940, the first nationwide study of continuing medical education was published.

World War II ushered in a kind of setback in the evolutionary development of continuing medical education; however, this was not without some long range benefits in that medical schools began to re-examine their programs and shifted the responsibility for continuing education from the professional societies to the universities and their medical schools. Two years after the war had ended, the American Academy of Family Physicians (formerly the American Academy of General Practice) became the first medical organization to require continuing education of its members.

Until 1968, all continuing medical education participation was voluntary with the exception of the American Academy of Family Physicians.

In 1968, the Oregon State Medical Association became the first medical society to require continuing education as a basis for membership.

In the seventies, the emphasis in continuing medical education (CME) is not whether it (CME) would be required of physicians but what system would be used and how it would be enforced.

4. Continuing Engineering Education.--In the late 1940's, technology began increasing at an astonishing rate. Because of rapidly increasing technology, an engineering education is widely

quoted as having a half-life of five years. For this reason, continuing engineering education has been recognized as an important responsibility of the profession.

At the First Conference (1968) of the newly formed Continuing Engineering Studies (CES) Division of the American Society for Engineering Education, it was stated that a company's responsibility to its employees includes making available the opportunity to grow; this includes an atmosphere which encourages a continuance of learning.

Two years later, the American Society for Engineering Education published a landmark comprehensive report entitled, "Goals of Engineering Education." On the basis of this report, the committee proposed some broad goals for future engineering education.

During the seventies, several states and professional and technical societies were studying the issue of continuing professional education and while most agreed with the concept, they also made it quite clear that continuing education should be a voluntary activity.

On January 1, 1970, Iowa became the first state in the nation to have a mandatory continuing education requirement for professional engineers for relicensure.

Design of the Study

In order to test the hypothesis of the study, it was necessary to obtain some attitudinal measure toward continuing professional education (elective and mandatory).

A generalized attitudinal scale called the "B-Survey Toward Continuing Professional Education" was specially prepared by this investigator.

The instrument was pre-tested with a sample population with similar characteristics to that of the participants and revised to correct ambiguities.

The questionnaire was given to selected faculty members of the dental, law, medical, and engineering schools at the University of Louisville who met the following criteria:

The School of Dentistry.--The D.M.D. degree was set as the minimum requirement for participation. Faculty members with Ph.D.'s but without the D.M.D. degree were excluded from this study. Fifty-six faculty members met this requirement.

The School of Law.--The L.L.B. or J.D. degree was set as the minimum requirement of faculty members selected from this school. Twenty-two faculty members met this requirement.

The School of Medicine.--The M.D. degree was set as the minimum educational requirement for faculty members selected from this school. One hundred and fifty-seven (157) faculty members met this requirement.

The Speed Scientific School (the School of Engineering and Applied Science).--The Master of Engineering (M.Eng.) was set as the minimum requirement for the faculty members selected from this school. Forty-six faculty members met this requirement.

Out of a population of two hundred and eighty-one, two hundred and four faculty members responded (dental school--40;

law school--18; medical school--106; engineering school--40) for a response rate of 72.6%.

Upon completion of the survey, the data was coded and punched on data control cards for statistical treatment by Michigan State University's CDC 6500 computer. Mr. Leonard Bianchi, Office Research Consultation Specialist at Michigan State University, served as research consultant.

Pearson's Product Moment Correlation was used to see if there was a relationship between the respondents' attitude toward continuing professional education, their age, and years of professional service at the University of Louisville.

The same procedure was used to see if these relationships existed for mandatory continuing professional education.

An analysis of covariance (with years of professional service at the University of Louisville and years of professional service prior to the University of Louisville being covaried out) was used to find if differences existed between the respondents' attitudes toward elective continuing professional education and mandatory continuing professional education. Two analyses of covariance, with the same two factors (years of professional service at the University of Louisville and years of professional service prior to the University of Louisville) being covaried out, were used to find if there was a difference between the four schools' attitudes on elective continuing professional and mandatory continuing professional education. A randomized block analysis of variance was used to find if there were any differences between the four schools on respondents' overall attitudes toward continuing professional education.

The respondents' attitudes toward both elective continuing professional education and mandatory continuing professional education were examined to see if there were significant differences between the respondents' attitudes about elective continuing professional and mandatory continuing professional education; and to see if there was an interaction between school and type of continuing professional education (elective continuing professional education and mandatory continuing professional education).

The amount of involvement of elective continuing professional education was analyzed by school; the amount of involvement in mandatory continuing professional education was also analyzed by school and finally, involvement in both elective continuing professional education and mandatory continuing professional education was analyzed by school.

A breakdown of how the faculty members wanted to be involved and where they wanted to be involved in elective continuing professional education and mandatory continuing professional education was analyzed by school.

Findings of the Study

Results of the statistical analysis performed on the data regarding the relationships of concern in the study have been summarized below:

1. A significant relationship at the .05 level was found between the respondents' attitude toward mandatory continuing professional education (MCPE) and age, professional service at the

University of Louisville, and professional service prior to coming to the University of Louisville.

2. A significant relationship was also found between the respondents' attitude toward elective continuing professional education (ECPE) and age.

3. A significant difference was found between ECPE and MCPE. The respondents were more in favor of ECPE than MCPE.

4. A significant difference was also found between the respondents of the four schools in their overall attitude toward continuing professional education. The respondents from the engineering and medical schools were less in favor of MCPE than were the respondents from the law and dental schools. However, the law school respondents were slightly more in favor of MCPE than ECPE.

5. An interaction between the attitudinal measures was found. Respondents from the four schools appeared to have similar attitudes toward ECPE. The medical school, engineering school, and dental school respondents have less favorable attitudes toward MCPE than ECPE. However, the law school seemed to be slightly more in favor of MCPE.

6. The Analysis of Covariance found significant differences between the respondents of the four schools. By using Scheffe's post hoc test, it was found that the mean (MCPE) of the medical school faculty was significantly higher than the means of the faculties from the School of Dentistry and the School of Law.

When "years of professional service at the University of Louisville" and "years of professional service prior to the

University of Louisville" were used as covariants, a significant difference was found between respondents of the four schools on their attitudes toward MCPE. Respondents from the medical school were found to be significantly less in favor of MCPE than the law or dental school respondents.

7. Five aspects of involvement were investigated: planning, research, evaluation, advisory capacity, and teaching. Approximately 25% of the respondents indicated no interest in any of the five aspects of ECPE while over 9% indicated interest in all five aspects of it. Some 46% of the respondents indicated no interest in any of these five aspects of MCPE while nearly 6% indicated interest in all five aspects of it.

In general, approximately 23% of the respondents indicated no interest in either MCPE or ECPE while nearly 4% indicated interest in both.

8. Of the respondents indicating an interest in being involved in elective continuing professional education (ECPE), 55% were willing to be involved in planning, 37% in research, 37% in evaluation, 51% in an advisory capacity, and 91% in teaching. Of the respondents interested in elective continuing professional education (ECPE), 31% indicated interest in being involved on released time, 69% with overload pay, 63% in on-campus work, and 36% in off-campus work. Of those respondents indicating an interest in being involved in mandatory continuing professional education (MCPE), 46% were willing to be involved in planning, 32% in research, 40% in evaluation, 51% in an advisory capacity, and 87% in teaching. Of

the respondents interested in mandatory continuing professional education (MCPE), 25% indicated an interest in being involved on a released time basis, 76% on overload pay, 57% in on-campus work, and 29% in off-campus work.

9. This investigation shows that 66% of the respondents showed interest in involvement in ECPE and or MCPE and would be willing to be involved through their departments.

10. Part V of the questionnaire consisted of a tabulation of the written comments submitted by some of the respondents. About 38% of the dentists responded to Part V, 22% of the lawyers, 24% of the physicians responded, and 25% of the engineers responded.

Conclusions and Discussion

Based on the findings of this study and in reference to the population of interest, the following conclusions can be drawn:

1. A statistically significant relationship was found between the respondents' attitudes toward MCPE and age, years of professional service at the University of Louisville and years of professional service prior to the University of Louisville, and also between the respondents' attitude toward ECPE and age.

2. The faculty members in the four professional schools have the same general opinion that elective continuing professional education is desirable. Lawyers feel that mandatory continuing professional education is slightly more desirable than elective continuing professional education. Dentists feel that mandatory continuing professional education is almost as desirable as elective continuing professional education. However, physicians and

engineers feel that mandatory continuing professional education is not desirable. Among these four groups, the medical school faculty is the least supportive of mandatory continuing professional education while the law school faculty is more supportive of mandatory continuing professional education.

3. This investigator's findings about the attitudes of the faculty members of the dental school are comparable to the national findings: (a) a clear pattern emerged concerning their desire for continuing professional education (elective and mandatory); (b) these faculty members thought there was a need for mandatory continuing professional education.

4. (a) Law school faculty members seem to follow the national trend, that lawyers located in states where continuing legal education is mandatory have found it to be more acceptable and preferable than lawyers located in states where it is not mandatory. (b) The law school faculty members seem to be consistently in favor of continuing legal education (elective or mandatory). This investigator found the same favorable results for continuing legal education for these faculty members as those for the lawyers in the state of Kentucky as a result of the 1976 survey taken by the Kentucky Bar Association.

5. In 1972, Kentucky physicians overwhelmingly favored mandatory continuing medical education; however, faculty members participating in this study (1977) at the University of Louisville's Medical School were NOT as favorable toward continuing professional education.

6. Because of the difficulty in defining what an engineer 'is', it is at this time difficult to find any attitudinal studies. The paucity of information and the clearly defined population for this study make it difficulty to compare findings. Unlike the other three professions where all participants have the same degree, the bulk of engineers (in the field) hold either bachelor's level degrees or no degree, but experience in the field. In the other three professions, continuing education is either (a) mandated by the legislature; (b) required for membership in the professional society; or (c) mandated continuing education is being studied or developed.

In two of the professions, law and dentistry, the faculty members favor continuing professional education. In medicine, the faculty's less favorable attitude about continuing professional education comes as a surprise to this investigator since medicine has pioneered the structure for continuing professional education.

7. In engineering, with the exception of one state and two professional societies, continuing education is not mandated and this faculty does not favor implementing such a requirement.

8. The respondents were given a chance to check all or any of the five aspects (planning, research, evaluation, advisory capacity, and teaching) of ECPE and MCPE. More faculty members were interested in aspects of ECPE than MCPE (75% for ECPE compared to 50% for MCPE). Most of the respondents interested in ECPE and MCPE were interested in the teaching aspect (91% for ECPE and 87% for MCPE). This is much higher than any other aspect. The respondents preferred involvement in ECPE and MCPE through overload pay

and on-campus work. Over half of the faculty (66%) interested in being involved in ECPE and MCPE would be willing to be involved through their department rather than through a centralized continuing education unit, professional organization or consortia with other universities.

9. Just as the available research shows that continuing education cannot be left to the individual, it also shows that the university, the professional societies, industry, and business cooperatively have an obligation to see that continuing education is an integral part of the educational experience.

Implications for Professional Education

1. Review of the literature shows that when continuing education is mandated either by state legislature for relicensure or by the professional's society as a requirement for membership, the attitude of those participants about mandatory continuing education is positive. However, since all professionals do not belong to their respective professional societies, the public must look to the state legislatures to mandate continuing professional education as a requirement for relicensure rather than leave that decision to the individual practitioner or the professional organization.

2. Faculty members seem to be more in favor of working through their departments in continuing education rather than through a centralized unit on campus, their professional organization or a consortium. This means that the university-wide continuing education coordinator should create a network between departments and the

coordinating unit for program planning in professional continuing education.

3. There is a need to further define the word 'engineer'. A precise definition might clear up some of the ambiguities that now exists within the profession. It may be that each discipline within the field should be investigated separately.

4. The literature review shows that the issue is not whether continuing education will be required of physicians, but what systems will be used and how it will be enforced. This means that program planners in CME will need to cooperate with the professional organizations, hospitals, and other deliverers of health care in program planning in CME.

Recommendations for Further Research

The review of the literature, the findings, conclusions and discussions, and practical implications generated by this study have prompted suggestions for further research. Some of the areas that appear to warrant further consideration are offered below:

1. Replication of this study as set forth or with some modifications seems warranted. There is a need to further investigate the difference in the results of this study and the study done by the Kentucky Medical Association in 1972.

2. A full scale attitudinal study should be initiated to see why the School of Medicine's faculty and the Speed Scientific School faculty members are less favorable toward MCPE than the other two schools. Such a study would help the university in its efforts to bring continuing professional education from its marginal

position to one that is an integral part of the curricula of these schools.

3. There is a need for additional attitudinal studies about continuing professional education in the fields of medicine and engineering. Past literature demonstrates a need for research in this area (attitudinal studies).

4. Continuing professional education literature shows that once professionals are exposed to mandatory continuing education, their dislike of the concept diminishes. Studies directed toward the issue of compulsory education and how it relates to continuing professional education would add to the data base.

5. Since the delivery system of CPE is important, it may be necessary for the universities to take on those areas that are not profitable.

6. The review of literature shows a definitional problem--what an engineer is--exists. This investigator overcame this problem by specifying that all engineering faculty members had at least a Master's degree; but for future research, there is a need for a precise definition to clear up some of the ambiguities that now exists within the profession. It may be that each discipline within the field should be investigated separately.

APPENDICES

APPENDIX A

B-SURVEY TOWARD CONTINUING PROFESSIONAL EDUCATION AND MANDATORY CONTINUING PROFESSIONAL EDUCATION

APPENDIX A

B-SURVEY TOWARD CONTINUING PROFESSIONAL EDUCATION AND MANDATORY CONTINUING PROFESSIONAL EDUCATION

General directions: Please fill in the blanks below.

PART I

1. Date _____ 2. Sex (circle one) M F

3. Professional School (check one)

   (a) ___ School of Dentistry Department _____

   List states where licensed to practice: _____

   (b) ___ School of Law Department _____

   List states where licensed to practice: _____

   (c) ___ School of Medicine Department _____

   List states where licensed to practice: _____

   (d) ___ Speed Scientific School Department _____

   List states where licensed to practice: _____

4. Age ____ 5. Academic rank (a) professor ___ (b) associate professor ___ (c) assistant professor ___ (d) other _____

6. Years of professional employment at the University of Louisville _____

7. Years of professional employment prior to the University of Louisville _____

PART II

Directions: Check the statement or statements that apply to you.

8. Prior exposure to continuing professional education.*

(a) ___ as a student
(b) ___ as a teacher
(c) ___ as a planner
(d) ___ as an administrator
(e) ___ as a consultant
(f) ___ not any
(g) ___ other (explain)

_____

_____

9. Prior exposure to mandatory continuing professional education.**

(a) ___ as a student
(b) ___ as a teacher
(c) ___ as a planner
(d) ___ as an administrator
(e) ___ as a consultant
(f) ___ not any
(g) ___ other (explain)

_____

_____

10. Experience as a practitioner (non-teaching) in my field
___ number of years.

* Continuing professional education is an organized program designed to keep the professional's learned skills up-to-date, to advance in his/her field and to learn about new problems to be solved.

** Mandatory continuing professional education is continuing education for the professional worker which is required either by law as a condition for certification or relicensure or by rule or particular professional society or organization.

PART III

Directions: Each of the following statements asks your feelings about continuing professional education (Column A) and mandatory continuing professional education (Column B). For each statement, check one from Column A and check one from Column B.

	A Continuing Professional Education (professional enhancement)				B Mandatory Continuing Professional Education (required for relicensure)			
	Agree	Strongly agree	Disagree	Strongly disagree	Agree	Strongly agree	Disagree	Strongly disagree
11. has a strong attraction for me.								
12. serves a good purpose.								
13. promotes cooperation between the practitioner and university faculty.								
14. should be used by more practitioners in my field.								
15. has advantages in it for me.								
16. is a good thing for the clients of professional practitioners.								
17. is a good way for me to keep current with practical application of new theories.								
18. dislikes the idea, but do not object to others liking it.								
19. sounds good, but it would be too time consuming.								
20. is a waste of both time and money.								
21. nothing to be gained from this activity either by society or the individual.								

PART IV

Directions: If you have been involved in continuing professional education, answer questions 22-25. If you have not been involved in continuing professional education, skip 22-25 and go directly to question 26.

22. Would you like to be involved in continuing professional education, and to what extent? (Check as many items as applicable.)

	0 time	¼ time	½ time	3/4 time	full time
(a) in planning					
(b) in research					
(c) in evaluation					
(d) in an advisory capacity					
(e) in teaching					

23. Would you like to be involved in mandatory continuing professional education, and to what extent?

	0 time	¼ time	½ time	3/4 time	full time
(a) in planning					
(b) in research					
(c) in evaluation					
(d) in an advisory capacity					
(e) in teaching					

24. If you have checked you want to be involved in continuing professional education, would you like that involvement to be:

*(a) ___ released time
**(b) ___ overload pay
(c) ___ on campus
(d) ___ off campus

* Released time--continuing professional education or mandatory continuing professional education activities would be the only assigned duties for a limited-time period, such as one semester or one academic year.

** Overload pay--continuing professional education and/or mandatory continuing professional education activities are added to regular load for extra pay.

25. If you have check you want to be involved in mandatory continuing professional education, would you like that involvement to be:

(a) ___ released time
(b) ___ overload pay
(c) ___ on campus
(d) ___ off campus

26. If you desire to be involved, would you like that involvement to be:

(a) ___ through your department
(b) ___ through a centralized continuing education unit
(c) ___ consortia with other universities
(d) ___ through your professional organization

PART V

Your comments on continuing professional education and/or mandatory continuing professional education are most welcome.

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX B

COVER LETTER SENT TO RESPONDENTS

UNIVERSITY OF LOUISVILLE
LOUISVILLE, KENTUCKY 40208

SPEED SCIENTIFIC SCHOOL
JAMES BRECKENRIDGE SPEED FOUNDATION
OFFICE OF THE DEAN

Dear Faculty Member,

The attached questionnaire is concerned with faculty members' attitudes toward continuing professional education and mandatory continuing professional education in the School of Dentistry, the School of Law, the School of Medicine, and the Speed Scientific School at the University of Louisville.

The results of this study will add to the University of Louisville's Continuing Professional Education data base and will be sent to the Directors of Continuing Education and the Deans in each of the participating schools.

I am particularly desirous of obtaining your response because your experience will contribute significantly toward solving some of the problems we face in the area of continuing professional education, particularly as it relates to the relicensure of professionals.

The enclosed questionnaire has been tested with a sample of professionals and has been revised to make it possible for me to obtain all necessary data while requiring a minimum of your time.

The average time required for the sample group was 7½ minutes.

It will be appreciated if you will complete the questionnaire prior to _____. In order to ensure confidentiality, I have enclosed two (2) envelopes; one for the questionnaire, which is unmarked and one with a form inside saying you returned the questionnaire. Other phases of this research cannot be carried out until I complete analysis of the questionnaire data.

I will be pleased to send you a summary of the questionnaire results if you desire. Thank you for your cooperation.

Sincerely yours,

Patricia Bell

Patricia Bell, Asst. Director
Professional Development

Attachment: Questionnaire

PB:raz

___ I returned the questionnaire

___ Applied Math & Computer Science

___ Chemical Engineering

___ Civil Engineering

___ Electrical Engineering

___ Library (Engineering)

___ Mechanical Engineering

___ Office of Interdisciplinary Programs

Name _____

___ I returned the questionnaire

___ School of Medicine

___ School of Dentistry

Name _____

APPENDIX C

TABLES--CONTINUING PROFESSIONAL EDUCATION

Table C.1.--Years of professional employment at the University of Louisville.

Years of Professional Employment at U of L	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
1	6 (15.0)[a]	3 (16.7)[a]	22 (20.8)[a]	5 (12.5)[a]	36 (17.6)[a]
2	6 (15.0)	0 (0.0)	18 (17.0)	3 (7.5)	27 (13.2)
3	0 (0.0)	2 (11.1)	17 (16.0)	5 (12.5)	24 (11.8)
4	3 (7.5)	1 (5.6)	7 (6.6)	1 (2.5)	12 (5.9)
5	5 (12.5)	1 (5.6)	9 (8.5)	0 (0.0)	15 (7.4)
6	3 (7.5)	2 (11.1)	3 (2.8)	3 (7.5)	11 (5.4)
7	1 (2.5)	1 (5.6)	2 (1.9)	8 (20.0)	12 (5.9)
8	3 (7.5)	1 (5.6)	1 (0.9)	2 (5.0)	7 (3.4)
9	2 (5.0)	0 (0.0)	1 (0.9)	1 (2.5)	4 (2.0)
10 to 14	4 (10.0)	5 (27.8)	10 (9.4)	5 (12.5)	24 (11.8)
15 or more	7 (17.5)	2 (11.1)	16 (15.1)	7 (17.5)	32 (15.7)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.2.--Years of professional employment prior to the University of Louisville.

Years of Professional Employment Prior to U of L	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
0	11 (27.5)[a]	3 (16.7)[a]	20 (18.9)[a]	3 (7.5)[a]	37 (18.1)[a]
1	0 (0.0)	3 (16.7)	5 (4.7)	1 (2.5)	9 (4.4)
2	4 (10.0)	2 (11.1)	11 (10.4)	3 (7.5)	20 (9.8)
3	3 (7.5)	0 (0.0)	2 (1.9)	3 (7.5)	8 (3.9)
4	3 (7.5)	0 (0.0)	5 (4.7)	1 (2.5)	9 (4.4)
5	0 (0.0)	1 (5.5)	5 (4.7)	1 (2.5)	7 (3.4)
6	1 (2.5)	2 (11.1)	4 (3.8)	6 (15.0)	13 (6.4)
7	2 (5.0)	0 (0.0)	5 (4.7)	4 (10.0)	11 (5.4)
8	1 (2.5)	1 (5.5)	3 (2.8)	1 (2.5)	6 (2.9)
9	0 (0.0)	0 (0.0)	3 (2.8)	5 (12.5)	8 (3.9)
10 to 14	4 (10.0)	2 (11.1)	20 (18.9)	8 (20.0)	34 (16.7)
15 or more	9 (22.5)	3 (16.7)	17 (16.0)	4 (10.0)	33 (16.1)
No response	2 (5.0)	1 (5.5)	6 (5.7)	0 (0.0)	9 (4.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.3.--Prior exposure to continuing professional education.[a]

Type of Exposure	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Student	33 (82.5)[b]	6 (33.3)[b]	80 (75.5)[b]	25 (62.5)[b]	144 (70.6)[b]
Teacher	5 (12.5)	7 (38.9)	16 (15.1)	11 (27.5)	39 (19.1)
Planner	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.5)
Administrator	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.5)
Not any	0 (0.0)	4 (22.2)	6 (5.7)	4 (10.0)	14 (16.9)
Other	2 (5.0)	1 (5.6)	1 (0.9)	0 (0.0)	4 (2.0)
No response	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.5)
Total	40 (100)[b]	18 (100)[b]	106 (100)[b]	40 (100)[b]	204 (100)[b]

[a]Continuing professional education is an organized program designed to keep the professional's learned skills up-to-date, to advance his/her field, and to learn about new problems to be solved.

[b]Numbers in parentheses are percentages.

Table C.4.--Prior exposure to mandatory continuing professional education.[a]

Type of Exposure	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Student	22 (55.0)[b]	1 (5.5)[b]	24 (22.6)[b]	3 (7.5)[b]	50 (24.5)[b]
Teacher	9 (22.5)	0 (0.0)	17 (16.0)	2 (5.0)	28 (13.7)
Planner	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.4)
Administrator	0 (0.0)	0 (0.0)	2 (1.9)	0 (0.0)	2 (0.9)
Consultant	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.4)
Not any	4 (10.0)	16 (88.9)	50 (47.2)	32 (80.0)	102 (50.0)
Other	3 (7.5)	0 (0.0)	1 (0.9)	0 (0.0)	4 (1.9)
No response	2 (5.0)	1 (5.5)	10 (9.4)	3 (7.5)	16 (7.8)
Total	40 (100)[b]	18 (100)[b]	106 (100)[b]	40 (100)[b]	204 (100)[b]

[a]Mandatory continuing professional education is continuing education for the professional worker which is required by law or a condition for certification or relicensure or by rule or particular professional society or organization.

[b]Numbers in parentheses are precentages.

Table C.5.--Experience as a practitioner (non-teaching) in my field ____ number of years.

Years	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
0	1 (2.5)[a]	1 (5.5)[a]	11 (10.4)[a]	1 (2.5)[a]	14 (6.9)[a]
1	1 (2.5)	2 (11.1)	5 (4.7)	3 (7.5)	11 (5.4)
2	2 (5.0)	1 (5.5)	8 (7.5)	6 (15.0)	17 (8.3)
3	2 (5.0)	1 (5.5)	2 (1.9)	2 (5.0)	7 (3.4)
4	2 (5.0)	0 (0.0)	2 (1.9)	3 (7.5)	7 (3.4)
5	0 (0.0)	2 (11.1)	1 (0.9)	4 (10.0)	7 (3.4)
6	2 (5.0)	1 (5.5)	0 (0.0)	1 (2.5)	4 (1.9)
7	2 (5.0)	0 (0.0)	3 (2.8)	2 (5.0)	7 (3.4)
8	0 (0.0)	1 (5.5)	3 (2.8)	1 (2.5)	5 (2.5)
9	0 (0.0)	0 (0.0)	2 (1.9)	1 (2.5)	3 (1.4)
10 to 14	3 (7.5)	2 (11.1)	10 (9.4)	5 (12.5)	20 (9.8)
15 or more	12 (30.0)	2 (11.1)	21 (19.8)	1 (2.5)	36 (17.6)
No response	13 (32.5)	5 (27.7)	38 (35.8)	10 (25.0)	66 (32.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.6.--Continuing professional education (professional enhancement) has a strong attraction for me.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	25 (62.5)[a]	5 (27.8)[a]	64 (60.4)[a]	16 (40.0)[a]	110 (53.9)[a]
Agree	12 (30.0)	6 (33.3)	41 (38.7)	19 (47.5)	78 (38.2)
Disagree	2 (5.0)	3 (16.7)	0 (0.0)	3 (7.5)	8 (3.9)
Strongly disagree	1 (2.5)	1 (5.6)	1 (0.9)	0 (0.0)	3 (1.5)
No response	0 (0.0)	3 (16.7)	0 (0.0)	2 (5.0)	5 (12.3)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.7.--Mandatory continuing professional education (required for relicensure) has a strong attraction for me.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	13 (32.5)[a]	3 (16.7)[a]	9 (8.5)[a]	2 (5.0)[a]	27 (13.2)[a]
Agree	19 (47.5)	5 (27.8)	50 (47.1)	20 (50.0)	94 (46.0)
Disagree	1 (2.5)	5 (27.8)	31 (29.2)	11 (27.5)	48 (23.5)
Strongly disagree	5 (12.5)	1 (5.6)	11 (10.4)	5 (12.5)	22 (10.8)
No response	2 (5.0)	4 (22.2)	5 (4.8)	2 (5.0)	13 (6.3)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.8.--Continuing professional education (professional enhancement) serves a good purpose.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	27 (67.5)[a]	7 (38.8)	65 (61.3)	25 (62.5)[a]	124 (60.7)
Agree	13 (32.5)	9 (50.0)	40 (37.7)	15 (37.5)	77 (37.7)
No response	0 (0.0)	2 (11.1)	1 (0.9)	0 (0.0)	3 (1.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.9.--Mandatory continuing professional education (required for relicensure) serves a good purpose.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	14 (35.0)[a]	4 (22.2)[a]	11 (10.4)[a]	5 (12.5)[a]	34 (16.7)[a]
Agree	18 (45.0)	7 (39.0)	60 (56.6)	27 (67.5)	112 (54.9)
Disagree	4 (10.0)	3 (16.7)	20 (18.8)	6 (15.0)	33 (16.2)
Strongly disagree	2 (5.0)	0 (0.0)	11 (10.3)	2 (5.0)	15 (7.3)
No response	2 (5.0)	4 (22.2)	4 (3.7)	0 (0.0)	10 (4.9)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.10.--Continuing professional education (professional enhancement) promotes cooperation between the practitioner and university faculty.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	20 (50.0)[a]	5 (27.7)[a]	34 (32.1)[a]	15 (37.5)[a]	74 (36.2)[a]
Agree	17 (42.5)	9 (50.0)	51 (48.1)	22 (55.0)	99 (48.5)
Disagree	3 (7.5)	1 (5.5)	15 (14.1)	3 (7.5)	22 (10.7)
Strongly disagree	0 (0.0)	0 (0.0)	2 (1.9)	0 (0.0)	2 (0.9)
No response	0 (0.0)	3 (16.7)	4 (3.8)	0 (0.0)	7 (3.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.11.--Mandatory continuing professional education (required for relicensure) promotes cooperation between the practitioner and university faculty

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	9 (22.5)[a]	2 (11.1)[a]	9 (8.4)[a]	3 (7.5)[a]	23 (11.2)[a]
Agree	19 (47.5)	8 (44.4)	28 (26.4)	20 (50.0)	75 (36.8)
Disagree	7 (17.5)	4 (22.2)	47 (44.3)	10 (25.0)	68 (33.3)
Strongly disagree	1 (2.5)	0 (0.0)	16 (15.1)	6 (15.0)	23 (11.2)
No response	4 (10.0)	4 (22.2)	6 (5.7)	1 (2.5)	15 (7.3)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.12.--Continuing professional education (professional enhancement) should be used by more practitioners in my field.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	30 (75.0)[a]	8 (44.4)[a]	48 (45.3)[a]	17 (42.5)[a]	103 (50.5)[a]
Agree	9 (22.5)	8 (44.4)	49 (46.2)	19 (47.5)	85 (42.0)
Disagree	0 (0.0)	0 (0.0)	5 (4.7)	3 (7.5)	8 (4.0)
No response	1 (2.5)	2 (11.1)	4 (3.7)	1 (2.5)	8 (4.0)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.13.--Mandatory continuing professional education (required for relicensure) should be used by more practitioners in my field.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	18 (45.0)[a]	6 (33.3)[a]	14 (13.2)[a]	7 (17.5)[a]	45 (22.1)[a]
Agree	14 (35.0)	6 (33.3)	47 (44.3)	21 (52.5)	88 (43.1)
Disagree	2 (5.0)	3 (16.7)	26 (24.5)	9 (22.5)	40 (20.0)
Strongly disagree	3 (7.5)	0 (0.0)	10 (9.4)	3 (7.5)	16 (7.8)
No response	3 (7.5)	3 (16.7)	9 (8.5)	0 (0.0)	15 (7.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.14.--Continuing professional education (professional enhancement) has advantages in it for me.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	23 (57.5)[a]	2 (11.1)[a]	55 (51.9)[a]	12 (30.0)[a]	92 (45.1)[a]
Agree	15 (35.5)	9 (50.0)	45 (42.4)	25 (62.5)[a]	94 (46.1)
Disagree	2 (5.0)	3 (16.7)	4 (3.8)	3 (7.5)[a]	12 (5.9)
Strongly disagree	0 (0.0)	1 (5.5)	1 (0.9)	0 (0.0)	2 (0.9)
No response	0 (0.0)	3 (16.7)	1 (0.9)	0 (0.0)	4 (1.9)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.15.--Mandatory continuing professional education (required for relicensure) has advantages in it for me.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	13 (32.5)[a]	2 (11.1)[a]	9 (8.5)[a]	5 (12.5)[a]	29 (14.2)[a]
Agree	12 (30.0)	4 (22.2)	47 (44.3)	17 (42.5)	80 (39.2)
Disagree	8 (20.0)	6 (33.3)	34 (32.1)	13 (32.5)	61 (30.0)
Strongly disagree	5 (12.5)	1 (5.5)	9 (8.5)	5 (12.5)	20 (9.8)
No response	2 (5.0)	5 (27.7)	7 (6.7)	0 (0.0)	14 (6.9)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.16.--Continuing professional education (professional enhancement) is a good thing for the clients of professional practitioners.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	23 (57.5)[a]	6 (33.3)[a]	48 (45.3)[a]	15 (37.5)[a]	92 (45.1)[a]
Agree	14 (35.0)	9 (50.0)	50 (47.2)	23 (57.5)	96 (47.1)
Disagree	2 (5.0)	0 (0.0)	3 (2.8)	1 (2.5)	6 (2.9)
Strongly disagree	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.5)
No response	1 (2.5)	3 (16.7)	4 (3.8)	1 (2.5)	9 (4.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.17.--Mandatory continuing professional education (required for relicensure) is a good thing for the clients of professional practitioners.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	19 (47.5)[a]	6 (33.3)[a]	15 (14.1)[a]	9 (22.5)[a]	49 (24.0)[a]
Agree	13 (32.5)	6 (33.3)	56 (52.8)	23 (57.5)	98 (48.0)
Disagree	4 (10.0)	3 (16.7)	19 (17.9)	7 (17.5)	33 (16.1)
Strongly disagree	2 (5.0)	0 (0.0)	9 (8.4)	0 (0.0)	11 (5.3)
No response	2 (5.0)	3 (16.7)	7 (6.6)	1 (2.5)	13 (6.3)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are column percentages.

Table C.18.--Continuing professional education (professional enhancement) is a good way for me to keep current with the practical application of new theories in my profession.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	19 (47.5)[a]	2 (11.1)[a]	49 (46.2)[a]	18 (45.0)[a]	88 (43.1)[a]
Agree	15 (37.5)	12 (66.7)	50 (47.2)	18 (45.0)	95 (46.6)
Disagree	4 (10.0)	2 (11.1)	5 (4.7)	4 (10.0)	15 (7.3)
Strongly disagree	1 (2.5)	1 (5.5)	1 (0.9)	0 (0.0)	3 (1.4)
No response	1 (2.5)	1 (5.5)	1 (0.9)	0 (0.0)	3 (1.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.19.--Mandatory continuing professional education (required for relicensure) is a good way for me to keep current with the practical application of new theories in my profession.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	12 (30.0)[a]	3 (16.7)[a]	10 (9.4)[a]	8 (20.0)[a]	33 (16.1)[a]
Agree	14 (35.0)	6 (33.3)	55 (51.9)	19 (47.5)	94 (46.1)
Disagree	6 (15.0)	4 (22.2)	22 (20.7)	10 (25.0)	42 (20.6)
Strongly disagree	6 (15.0)	1 (5.5)	13 (12.2)	2 (5.0)	22 (10.8)
No response	2 (5.0)	4 (22.2)	6 (5.6)	1 (2.5)	13 (6.3)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.20.--Continuing professional education (professional enhancement): dislike this idea, but do not object to others liking it.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	1 (2.5)[a]	1 (5.5)[a]	5 (4.7)[a]	2 (5.0)[a]	9 (4.4)[a]
Agree	5 (12.5)	4 (22.2)	5 (4.7)	3 (7.5)	17 (8.3)
Disagree	23 (57.5)	7 (38.9)	62 (58.5)	23 (57.5)	115 (56.4)
Strongly disagree	8 (20.0)	2 (11.1)	22 (20.1)	6 (15.0)	38 (18.6)
No response	3 (7.5)	4 (22.2)	12 (11.3)	6 (15.0)	25 (12.2)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.21.--Mandatory continuing professional education (required for relicensure): dislike this idea, but do not object to others liking it.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly agree	1 (2.5)[a]	1 (5.5)[a]	9 (8.5)[a]	3 (7.5)[a]	14 (6.9)[a]
Agree	5 (12.5)	1 (5.5)	25 (23.5)	16 (40.0)	47 (23.0)
Disagree	23 (57.5)	9 (50.0)	52 (49.0)	13 (32.5)	97 (47.5)
Strongly disagree	3 (7.5)	2 (11.1)	11 (10.4)	3 (7.5)	19 (9.3)
No response	8 (20.0)	5 (27.8)	9 (8.4)	5 (12.5)	27 (13.2)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.22.--Continuing professional education (professional enhancement) sounds good, but it would be too time consuming.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly disagree	0 (0.0)[a]	0 (0.0)[a]	1 (0.9)[a]	1 (2.5)[a]	2 (0.9)[a]
Disagree	0 (0.0)	5 (27.8)	7 (6.7)	3 (7.5)	15 (7.3)
Agree	26 (65.0)	9 (50.0)	66 (62.2)	26 (65.0)	127 (62.2)
Strongly agree	11 (27.5)	1 (5.6)	27 (25.4)	8 (20.0)	47 (23.0)
No response	3 (7.5)	3 (16.7)	5 (4.7)	2 (5.0)	13 (6.3)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.23.--Mandatory continuing professional education (required for relicensure) sounds good, but it would be too time consuming.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly disagree	1 (2.5)[a]	2 (11.1)[a]	4 (3.8)[a]	1 (2.5)[a]	8 (3.9)[a]
Disagree	2 (5.0)	1 (5.5)	14 (13.2)	7 (17.5)	24 (22.6)
Agree	24 (60.0)	9 (50.0)	68 (64.1)	23 (57.5)	124 (60.8)
Strongly agree	10 (25.0)	1 (5.5)	11 (10.3)	5 (12.5)	27 (13.2)
No response	3 (7.5)	5 (27.8)	9 (8.4)	4 (10.0)	21 (10.2)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.24.--Continuing professional education (professional enhancement) is a waste of both time and money.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly disagree	1 (2.5)[a]	0 (0.0)[a]	0 (0.0)[a]	0 (0.0)[a]	1 (0.5)[a]
Disagree	0 (0.0)	3 (16.7)	2 (1.9)	0 (0.0)	5 (2.5)
Agree	13 (32.5)	6 (33.3)	53 (50.0)	18 (45.0)	90 (44.1)
Strongly agree	23 (57.5)	5 (27.8)	48 (45.3)	21 (52.5)	97 (47.5)
No response	3 (7.5)	4 (22.2)	3 (2.8)	1 (2.5)	11 (5.3)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are column percentages.

Table C.25.--Mandatory continuing professional education (required for relicensure) is a waste of both time and money.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly disagree	3 (7.5)[a]	1 (5.5)[a]	4 (3.8)[a]	1 (2.5)[a]	9 (4.4)[a]
Disagree	2 (5.0)	1 (5.5)	12 (11.3)	3 (7.5)	18 (8.8)
Agree	15 (37.5)	7 (38.9)	59 (55.7)	21 (52.5)	102 (50.0)
Strongly agree	18 (45.0)	3 (16.7)	21 (19.8)	12 (30.0)	54 (26.5)
No response	2 (5.0)	6 (33.3)	10 (9.4)	3 (7.5)	21 (10.2)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are column percentages.

Table C.26.--Continuing professional education (professional enhancement): nothing to be gained from this activity either by society or the individual.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Disagree	0 (0.0)[a]	3 (16.7)[a]	4 (3.7)[a]	0 (0.0)[a]	7 (3.4)[a]
Agree	11 (27.5)	7 (38.9)	43 (41.0)	14 (35.0)	75 (36.8)
Strongly agree	27 (67.5)	5 (27.8)	56 (52.8)	25 (62.5)	113 (55.4)
No response	2 (5.0)	3 (16.7)	3 (2.8)	1 (2.5)	9 (4.4)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

Table C.27.--Mandatory continuing professional education (required for relicensure): nothing to be gained from this activity either by society or the individual.

Response	The Four Professional Schools				
	Dentistry	Law	Medicine	Speed Scientific School (Engrg.)	Total
Strongly disagree	0 (0.0)[a]	1 (5.6)[a]	3 (2.8)[a]	1 (2.5)[a]	5 (2.5)[a]
Disagree	5 (12.5)	1 (5.6)	12 (11.3)	0 (0.0)	18 (8.8)
Agree	12 (30.0)	8 (44.4)	55 (51.9)	23 (57.5)	98 (48.0)
Strongly agree	21 (52.5)	3 (16.7)	27 (25.5)	14 (35.0)	65 (31.9)
No response	2 (5.0)	5 (27.8)	9 (8.5)	2 (5.0)	18 (8.8)
Total	40 (100)[a]	18 (100)[a]	106 (100)[a]	40 (100)[a]	204 (100)[a]

[a]Numbers in parentheses are percentages.

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