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I am submitting herewith a dissertation written by Delorise Creecy Barnes entitled "Changes in Business Education Programs in Tennessee Public Senior High Schools since the Passage of the National Vocational Education Act of 1963." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Vocational-Technical Education.

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CHANGES IN BUSINESS EDUCATION PROGRAMS IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS SINCE THE PASSAGE OF THE NATIONAL VOCATIONAL EDUCATION ACT OF 1963

A Dissertation

Presented for the

Doctor of Education

Degree

The University of Tennessee, Knoxville

Delorise Creecy Barnes

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D. C. Barnes

December 1978

ABSTRACT

The purpose of this study was to describe possible differences in business education in the public senior high schools of Tennessee since the passage of the National Vocational Education Act of 1963. Included among the specific factors investigated for the school years 1962-63 and 1976-77 were (1) the course and program offerings, and (2) the student enrollments. Current factors investigated because of their relationship to vocational funding were (1) teacher certification, (2) classroom facilities and equipment, (3) business and office machines, (4) instructional materials and media, (5) the guidance and counseling program, (6) the business-oriented youth organizations, and (7) the advisory committees.

The three major sources of the data for this study were Tennessee State Department of Education records and publications; questionnaires sent to 154 business education and 106 vocational office education teachers in 183 public senior high schools; and personal interviews with vocational office education teachers and high school personnel in 17 schools.

The conclusions are grouped under three headings for easier reading: (1) Vocational Office Education and Business Education Programs (2) Vocational Office Education Programs and (3) Business Education Programs.

Vocational Office Education and Business Education Programs

1. The ultimate goal of both business education and vocational office education programs is the same—to prepare students for the world of work in the office area.

2. Business teachers in Tennessee are classified into two groups—business education (nonreimbursed) and vocational office education (reimbursed).

3. Supervision at the State and regional levels is available to the vocational office education teachers and not the business education teachers.

4. The majority of the students in business are getting their preparation from business education teachers (nonreimbursed) and not VOE teachers (reimbursed).

5. From 1962-63 to 1976-77 school years, enrollments in courses and programs have increased substantially for both business education and vocational office education programs.

6. Vocational office education teachers are better equipped than business education teachers with (a) facilities and equipment, (b) (b) business and office machines, and (c) instructional materials and media.

Vocational Office Education Programs

7. A large percentage of the vocational office education teachers have met one or more of the state requirements for vocational office education certification.

8. A large percentage of the vocational office education teachers are using a traditional course approach rather than the block-time approach.

9. A large percentage of the vocational office education teachers did one or more of the following: (a) consulted school guidance counselors concerning the selection of students; (b) conducted periodic follow-up studies; and (c) placed students on jobs.

Business Education Programs

10. Over one half of the business education teachers meet the requirements of a Bachelor's degree and work experience needed for vocational office education certification; approximately one third meet the requirements of having completed the four required courses.

11. Even though business education teachers are not required to have follow-up and job placement services, 28 percent of the business education teachers conducted follow-up and 44 percent had job placement services; approximately two thirds consulted with the guidance counselors concerning the selection of students.

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CHAPTER I

THE PROBLEM

I. INTRODUCTION

The National Vocational Education Act of 1963 was a result of social, economic, and political forces and gave vocational education an added boost to strengthen its role in preparing people for the world of work. The 1968 and 1976 Vocational Educational Amendments reemphasized the importance of establishing vocational programs for certain groups in our society (disadvantaged, handicapped, aged, etc.) to help reduce some of the social ills (unemployment, underemployment, racial and social turmoil). The purpose of the Act and Amendments was "to authorize Federal grants to states to assist them to maintain, extend, and improve existing programs of vocational education."[1]

Not until passage of the Vocational Education Act of 1963 did business and office education receive federal financial support. Under the provisions of the Act, business education (BE) was given an opportunity to improve its role in educating America's youth and adults for the changing world of work. Providing educational opportunities that are more useful and more meaningful in this age of revolutionary

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[1]C. A. Nolan, Carlos K. Hayden, and Dean R. Malsbary, Principles and Problems of Business Education, (3d, ed.; Cincinnati: South-Western Publishing Co., 1967) p. 629.

change becomes increasingly the most relevant issue.[2] Toffler, who is a well-known futurist, speaks of educating for change and preparing people for the future.[3]

Haines and Coleman said that the policies developed in state plans had legal consequences and profound educational significance that were based upon a sound theoretical framework.[4] Since 1964 state plans have had to include office education. These plans are changing documents that must be reviewed every five years. Allotments are received by states as these documents are approved by the federal government.

The extent to which improvement has occurred at the high school level in Tennessee and many other states has not been researched extensively. Since the intent of the Act and Amendments was to bring about improvement, follow-up should be on a statewide basis. Has federal reimbursement brought about positive changes in BE in Tennessee high schools?

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[2]Lawrence W. Erickson, "Improving the Content of the High School Office Education Program," The Emerging Content and Structure of Business Education, Eighth Yearbook of the National Business Education Association (Washington, D.C.: National Business Education Association, 1970) p. 207.

[3]Alvin Toffler, Future Shock, (New York: Random House, Inc., 1970) pp. 398-418.

[4]Peter Haines and Brendon Coleman, "State Plans for Vocational Office Occupations," Business Education Meets the Challenge of Change, Fourth Yearbook of the National Business Association. (Washington, D.C.: National Business Education Association, 1966) p. 117.

II. THE PURPOSE

The purpose of this study was to describe possible differences in BE in the public senior high schools of Tennessee since the passage of the National Vocational Education Act of 1963. In order to describe the possible differences in high school BE programs in Tennessee, answers were sought to the following questions:

1. How have enrollments, courses and program offerings changed from the 1962-63 school year to the 1976-77 school year in small, medium, and large high schools in Tennessee?

2. What is the status of teachers in terms of professional preparation in reimbursed and nonreimbursed BE programs?

3. What changes have taken place in terms of student participation in business-oriented youth organizations from the 1962-63 to the 1976-77 school years?

4. What classroom facilities and equipment are available in reimbursed and nonreimbursed BE programs? What are the teachers' opinions regarding the adequacy of these facilities and equipment?

5. What types of instructional materials and media are available in reimbursed and nonreimbursed BE programs? What are the teachers' opinions regarding the adequacy of the instructional materials and media?

6. What process is being used for student selection in reimbursed and nonreimbursed programs?

7. What follow-up program is being used by reimbursed and nonreimbursed BE programs?

8. What job placement practice is being used by reimbursed and nonreimbursed BE programs?

III. DEFINITION OF TERMS

Many terms used in this study have a particular meaning to the field of BE and to the State of Tennessee. The following terms are defined according to their specialized use as components of the problem of this study.

1. Business education course—In Tennessee any subject that is taught as an individual subject in the single-period approach is not eligible for federal reimbursement and is identified as a BE course. The single exception to this is the Introduction to Vocational Office Education and Vocational Office Education Stenography courses which are considered vocational courses and are eligible for federal reimbursement.

2. Business education teacher—A BE teacher is any high school teacher who teaches one or more BE courses and who does not teach in a reimbursed program.

3. Vocational office education (VOE)—Any organized VOE program eligible to receive federal funds under the Vocational Education Act of 1963 and assigned an instructional taxonomy code number of 14.0000 by the Division of Vocational Education, Tennessee State Department of Education, is a VOE program. All of these programs use the block-time approach and may include a simulated office, office model, or cooperative programs of instruction.

4. Instructional materials and media—Any device (equipment or material) used for instructional purposes is an instructional material or media.

5. Large high school—A large high school is one comprised of 1500 or more students.

6. Medium high school—A medium high school is one comprised of 500-1499 students.

7. Small high school—A small high school is one comprised of 1-499 students.

8. Vocational office education teacher—A VOE teacher is any high school teacher who teaches a VOE program which receives federal funds.

9. Work experience—Work experience refers to any business experience a teacher received as an employee or as a self-employed individual in any office and/or related business occupation.

IV. IMPORTANCE OF THE STUDY

Many changes have taken place in vocational education in Tennessee since federal funding in 1963 first became available for office occupations. Some of these changes have been the emergence of vocational centers, state area vocational-technical schools, and community colleges. These institutions prepare individuals to enter the labor market by offering, among other occupational fields, training in business and office occupations. Another significant change has been the implementation of reimbursed vocational education programs in the high schools throughout the state.

A definite need exists for a careful and comprehensive study of BE in the public senior high schools of Tennessee to determine effects in BE as a result of federal funding. Research is also needed to determine if BE has changed appreciably in Tennessee since the passage of the Vocational Education Act of 1963.

To determine whether BE has changed in a response to the needs of business and society, the curriculum must be investigated. Nolan, Hayden, and Malsbary state that the curriculum should not lag years behind business.[5] The importance of curriculum change is given by Toffler as he says:

> . . . instead of assuming that every subject taught today is taught for a reason, should begin from the reverse premise: nothing should be included in a required curriculum unless it can be strongly justified in terms of the future. If this means scrapping a substantial part of the formal curriculum, so be it.[6]

What influence has the Vocational Education Act of 1963 and the Amendments of 1968 had upon the BE course offerings in small, medium, and large high schools of Tennessee? What business and office education programs have been introduced in the public senior high schools of Tennessee since federal monies have been made available?

One of the major changes in the business curriculums in the secondary schools of Tennessee since the passage of the Vocational Education Act of 1963 was the introduction of reimbursable block-time

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[5]Nolan, Hayden, and Malsbary, op, cit., p. 92.

[6]Toffler, op, cit,. p. 409.

programs. The reimbursable block-time programs receive federal funds and are known as VOE programs in order to distinguish them from the nonreimbursable BE course. The block-time program utilizes the integration of subject matter in an atmosphere approximating the real business world. Matching funds from federal and state sources were utilized to enlarge or improve classroom facilities and to buy modern furnishings, equipment, and business machines. None of the BE courses in Tennessee are eligible for funding.

Federal reimbursement for business and office occupations programs is dependent upon meeting the specifications of the Tennessee State Plan for Vocational Education. One of these specifications is vocational certification for the VOE teachers. Actual business work experience has long been recognized as an integral part of the professional preparation of VOE teachers in Tennessee.[7] Douglas, Blanford, and Anderson say that business teachers with actual business experience gain in know-how, in understanding of the requirements of business, in self-confidence, and in ability to win and hold the full confidence of students.[8] Just how much emphasis is placed upon the value of work experience by BE teachers in Tennessee public senior high schools? Is there a trend for BE teachers to seek VOE certification?

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[7]Rules, Regulations, and Minimum Standards, Tennessee State Board for Vocational Education (Vocational Curriculum Laboratory, Murfreesboro, 1972) p. 42.

[8]Lloyd V. Douglas, James T. Blanford, and Ruth I. Anderson, Teaching Business Subjects, (2d ed.; Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965) p. 12.

Modern equipment is essential to effective training for business and office occupations. Nolan, Hayden, and Malsbary state that an effective BE program in the high schools is dependent upon functional furniture and equipment.[9] The Policies Commission for Business and Economic Education also emphasizes the importance of equipment and facilities when it issued the following statement:

> Instructional equipment and facilities should be comparable with those found in the businesses where students are likely to be employed.[10]

Just how adequate are the facilities and equipment used by the business teachers in small, medium, and large high schools in Tennessee? Do the facilities and equipment in reimbursed office education programs differ from the facilities and equipment found in nonreimbursed programs?

Tonne, Popham, and Freeman state that teachers should use the most effective teaching aids available and that "next to the teacher in importance in the educational process are the instructional materials selected."[11] The importance of selecting the most appropriate instructional materials and media is further substantiated by Nolan, Hayden, and Malsbary as follows:

> The teacher who is interested in providing the best possible learning experiences for his students is one who seeks out and

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[9]Nolan, Hayden, and Malsbary, op. cit., p. 291.

[10]Policies Commission for Business and Economic Education, "This We Believe about Business Education in the Secondary School," Business Education Forum, Vol. 25 (October 1970), p. 8.

[11]Herbert A. Tonne, Estelle L. Popham, and Herbert M. Freeman, Methods of Teaching Business Subjects, (3d ed.; New York: Gregg Division, McGraw-Hill book Company, 1965) p. 430.

> uses the most productive instructional materials and media that are available. . . .
>
> Many learning aids are now available which increase the efficiency of the total instructional process and which bring about a variation in class procedures that provide added stimulus to learning.[12]

What instructional aids and media are currently being used by BE teachers in Tennessee?

A very comprehensive study of BE in the public senior high schools of Ohio was completed in 1973 by Gump.[13] The Ohio study was used as a partial guide for this study and is reviewed in Chapter II. In attempting to assess the influence of federal funding on BE in the Tennessee public senior high schools, selected factors thought to be most directly affected by federal monies were investigated. Thus, this study focuses on courses and programs, student enrollments, teacher certification, facilities and equipment and instructional materials and media.

V. LIMITATIONS OF THE STUDY

To identify the specific area of this study, the following limitations were made:

1. Part-time programs and adult education were not considered a part of this study.

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[12]Nolan, Hayden, and Malsbary, op. cit., p. 321.

[13]John Edward Gump, "An Analysis of the Changes in Business Education in the Public Senior High Schools of Ohio since the Passage of the Vocational Education Act of 1963," (Ed.D. dissertation, Ohio State University, Columbus, 1973).

2. Distributive education was not considered a part of the BE or VOE programs.

3. Assessing the quality or the effectiveness of the BE courses and the VOE programs was not considered a part of this study.

4. Some questionnaires were not completely filled out.

VI. ASSUMPTIONS

The underlying assumptions of this study were as follows:

1. The public senior high schools represented by the teachers are representative of all the public senior high schools of Tennessee.

2. The data obtained from state department records are correct.

VII. SOURCES AND NATURE OF DATA

Different sources of data were used in this study. These sources and the nature of the data collected from each source are listed below.

Tennessee State Department of Education Publications and Records

Several records and publications of the Tennessee State Department of Education were examined for use in this study.

The Tennessee Directory of Public Schools for 1962-63 and 1976-77 school years listed the names and addresses of all public senior high schools and the names of their respective principals. The 1962-63 directory was used to verify that the represented schools existed in 1962-63.

The specialist for business and office affairs in the state department of education provided a directory of the public senior high

schools with reimbursed VOE programs. Names and addresses of teachers, local directors and supervisors were also obtained from this directory.

Each regional specialist for business and office education provided a roster of the public senior high schools with nonreimbursed BE programs. Names and addresses of teachers were obtained from this directory.

The 1962-63 high school preliminary report forms and a 1976 statistical printout form listed the names of BE courses and VOE programs and their respective student enrollments. These reports supplied the data on course offerings in BE and student enrollment in these courses. Data accumulation sheets were prepared to facilitate the hand recording of this information. The printout provided the comparative data for the 1976-77 school year.

The questionnaire for BE and VOE teachers was used to collect current data on BE in Tennessee public senior high schools. A copy of the questionnaire is included in Appendix A. Teacher cover letters are located in Appendix B, Schedules B and C. The cover letter and post card sent to the principals are located in Appendix B (Schedule A).

VIII. METHODS OF RESEARCH

The design of this study is basically a descriptive ex post facto type of survey research. The data were collected from Tennessee State Department of Education records and through questionnaires and personal interviews. The sequence of activities for the data collection is presented in this section.

Review of Related Literature

As reported in Chapter II, the review of related literature included a summary of the Vocational Education Act of 1963, and the 1968 and 1976 Amendments and the Tennessee State Plan for Vocational Education. An understanding of the purposes of the legislation was essential to the analysis of the data.

The related research summarized in Chapter II was found through a search of the literature for the past fifteen years. The main reference sources were Business Education Index, Current Index to Journals of Education (CIJE), Dissertation Abstracts, Education Index, Index to Research in Business and Office Education, Research in Education (RIE) and University Microfilms.

Population and Sample

The population for this study consisted of 683 public senior high school BE teachers and 228 VOE teachers in Tennessee. BE teachers represented nonreimbursed programs and VOE teachers represented reimbursed programs. According to the research division of the NEA, a sample of 248 BE teachers was needed and a sample of 144 VOE teachers was needed.[14] A table of random numbers was used to select the sample from each group.

Of the total 260 teachers responding in the sample, 183 different schools were represented. Initially it was necessary to drop 75 of

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[14] Research Bulletin. Research Division of the National Education Association, Vol. 38, No. 4 (December 1960), p. 99-104.

the schools because of changes such as consolidations or newly organized schools; 12 were dropped because the preliminary report of the high school principal for the 1962-63 and 1976-77 school years could not be located. Finally, a sample of 96 schools was used for the comparative study of data on course, programs, and enrollments for the school years 1962-63 and 1976-77.

A smaller sample of 17 reimbursed VOE programs was used for a more intensive study of BE. The data were collected with the use of a questionnaire and personal interviews with high school personnel and teachers of VOE programs. This sample of 17 represented a convenient sample from east, west, and middle Tennessee senior high schools.

Development of Questionnaire

The questionnaire for the teachers was created after reviewing a number of parallel research studies in BE, examining instruments from other subject areas, and reading articles in numerous publications. The questionnaire was first submitted to members of the research committee for criticism and evaluation. After revisions were made, the questionnaire (see Appendix A) with cover letters (see Appendix B, Schedules B and C) were read by several business teachers. Upon receiving their evaluations and suggested changes, the final instrument was prepared. The questionnaire for the teachers sought information about vocational certification, departmental facilities and equipment, business and office machines, instructional materials and media,

guidance and counseling, business-oriented youth organizations, and advisory committees.

The questionnaire and cover letters mailed to the teachers were of two kinds—one to those who teach reimbursed VOE programs in their school and another to those who do not teach reimbursed programs.

Personal visits were made to the 17-school sample for an in-depth look at BE in Tennessee. The 17 reimbursed VOE programs were visited in order to interview a teacher and to observe the facilities and equipment.

While the final instrument to the teachers was being prepared, letters were mailed to the principals in the sample asking them for their cooperation in doing the study and asking permission to visit their school to conduct an interview with a teacher of the VOE program. A post card was enclosed with each letter for the principal to indicate his/her willingness to participate in the study.

During the interview with the teacher, some questionnaires were collected and checked to see that all items had been completed. Any question about items that were incomplete or unanswered were clarified. At the end of the interviews, an observation of classroom facilities and equipment were made.

Several follow-up visitations and telephone calls were made to secure complete information for specific schools.

Analysis of the Data

Most of the data collected in this study concerning BE and VOE were analyzed according to small, medium, and large high schools in

Tennessee. The data were reported in the form of means and frequency distributions to reveal the information desired. The descriptive narrative of the tables of comparative data points out the facts and relationships deemed to be important.

IX. OVERVIEW OF THE STUDY

The introduction and a discussion of the total problem, including definition of terms, importance of the study, research procedures, sources and nature of the data, and a description of the sequence of activities in collecting the data have been presented in this chapter.

The analysis of the data are presented in the next four chapters. Chapter III contains the data on BE course offerings and VOE programs with their corresponding student enrollments in Tennessee public senior high schools. Chapter IV includes the academic and professional training of Tennessee BE teachers in terms of degrees earned, years of teaching experience, and related work experience. In Chapter V, the data concerning classroom facilities and equipment, business and office machines, and instructional materials and media used by BE and VOE teachers in Tennessee public senior high schools are analyzed. Chapter VI contains the data on the guidance and counseling program, the business-oriented youth organizations, and the advisory committees.

Chapter VII presents a summary of the findings of this study on BE and VOE in Tennessee public senior high schools. The conclusions and recommendations are also included in the final chapter.

CHAPTER II

REVIEW OF RELATED LITERATURE

I. INTRODUCTION

The purpose of this chapter is to review related literature and research dealing with possible differences in BE. A summarization of the Vocational Education Act of 1963 and the Amendments of 1968 and 1976 provides the foundation for this chapter. Special attention is focused on BE in Tennessee through a review of applicable sections of the Tennessee State Plan for Vocational Education. Research which had been conducted since the passage of the Vocational Education Act of 1963 and which were considered significant to this study were also reviewed.

Historically, any legislation is the culmination of a sequence of events reflecting the issues and concerns from the social, economic, and political background of the times. Tomlinson made the following statement about vocational legislation: ". . . vocational education is about at the teen-age stage of the third generation of vocational educators."[1] The first generation of vocational educators saw a social need and approached that need from varied philosophies and disciplines;

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[1]Robert M. Tomlinson, "Implications and Reflections: The Vocational Education Amendments of 1968," Contemporary Concepts in Vocational Education, First yearbook of the AVA (Washington, D.C.: The AVA, Inc., 1971) p. 33.

the job-oriented Smith Hughes Act was a culmination of the efforts of this group. The second generation of vocational educators was operationally and administratively oriented and concentrated on the implementation of the Smith Hughes Act from 1917 to 1950. The third generation of vocational educators was a people-oriented group; consequently, their ideas and beliefs led to the Vocational Education Acts of 1963 and Amendments of 1968 and 1976.

II. THE VOCATIONAL EDUCATION ACT OF 1963

When the original draft of the Vocational Education Act of 1963 was introduced in the House of Representatives, it failed to include Vocational Business Education. When this was discovered, legislative action directed that it be reworded, both in purpose and in definition of Vocational Education to include Vocational Business Education.[2] Then Congress passed the bill on December 18, 1963, and under these new terms business and office education became eligible for the very first time to receive federal funds that other service areas—vocational agriculture, home economics, trade and industrial education, and distributive education—had received for years. Prior to the Vocational Education Act of 1963, business educators had contributed toward the training of thousands of workers, but were not permitted to participate in funding practices enjoyed by the other areas. Although BE had been

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[2]Hamden L. Forkner, "The Vocational Education Act of 1963 and Business Education," Business Education Forum, XVIII (December 1963), p. 29.

recognized by many as vocational education, it was not until 1963 that legislators felt that these programs would suffer without federal aid.[3]

With the advent of additional federal aid, some educators feared too much national control even though specific procedures for funding the various vocational programs were left to the individual states. Vocational education on a statewide basis could be conducted with or without federal aid. However, since the states used nearly all of the national funds made available to them, national controls, apparently, were not very objectionable. As all states contribute to the federal funds, it would be expected that all would attempt to benefit from them.[4]

When states decide to use federal funds, many policy decisions must be made. Hamlin listed five of these decisions.

> 1. They must decide how state policy for vocational education is to be made, who are to share in making it, and how they will share.
> 2. They may use the federal funds for some or all of the purposes for which they are provided.
> 3. They may assume complete control over the programs conducted in the local and area schools or delegate a larger part of these controls.
> 4. They may match the funds, dollar for dollar or may require local and area schools to match them, if they want the program, or may join with the local and area schools in matching them.

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[3]William Selden, "A Chronology of Federal Legislation Affecting Business Education," Administration and Supervision of Business Education, Eastern Business Teachers Association Yearbook, Vol. 39 (Somerville, N. J.: Somerset Press, 1966) p. 33.

[4]H. M. Hamlin, "Local, Regional, and State Policies and Policy Making," Vocational Education, Sixty-Fourth Yearbook of the National Society for the Study of Education, Part I (Chicago: The University of Chicago Press, 1965), p. 212.

> 5. They may or may not provide adequate state services for the development of vocational education in the local and area schools including supervision, teacher education, research, and development. In short, the states, and not the national government, hold the decisive controls over vocational education even in the federally aided programs.[5]

Under the provisions of the Vocational Education Act of 1963, vocational education for business and office occupations was defined thus:

> This program is for persons over 14 years of age who have the ability to profit from instruction. Its purpose is initial preparation, refresher training and/or upgrading of individuals leading to employment and advancement in office careers.[6]

Four groups are served by the Act. They are: (1) secondary students preparing to enter the labor market for a career in office work; (2) youth and adults with special problems who are capable of profiting from BE instruction; (3) youth and adults who have completed or left high school and are full-time students preparing for a career in office work; (4) youth and adults who are unemployed or employed and who need initial, refresher, or upgrading courses in BE to achieve employment stability.

Federal funds were appropriated for business and office education to staff state and local BE services; to purchase specialized instructional equipment; to provide in-service teacher education; to reimburse teachers for attending conferences and workshops; to construct

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[5] Ibid.

[6] James Bolger, "The New Look in Vocational Education—Provisions of the Vocational Education Act of 1963," Business Education World, XLV (November 1964) p. 11.

area vocational schools; to develop experimental programs in vocational BE for youth of low, average, and high ability; and to supply funds for various other suggested uses in order to improve and upgrade BE.

Since 1963 VOE has been provided by the office of Business and Office Education Service, Tennessee State Department of Vocational Education, supported by funds from the federal government. In addition, regular BE programs have continued; the teachers in BE were considered a part of secondary education in the State Department of Education without a specific supervisor for BE until 1974; the VOE programs are administered through the office of Business and Office Education Service in the State Department of Vocational Education. In 1974, the administration of the BE programs came under the supervision of the office of Business and Office Education Service. Between 1974-1976, there were a total of 183 public senior high schools with VOE programs and 320 public senior high schools with BE programs according to the teacher directories.

III. THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

On October 16 Congress enacted the Vocational Education Amendments of 1968. These Amendments retained the major purposes of the 1963 Act and extended considerably other purposes for which money could be spent.

Many of the provisions of the 1968 Amendments centered around the theme that changes were definitely needed. These provisions aimed to extend and broaden the areas of concern and the services provided. For the first time states were directed to allocate a certain percentage

of their funds for the vocational programs of specific groups, especially those with academic, socioeconomic, and other handicaps.[7] An organized system for providing occupational information to students at an earlier age was encouraged. Emphasis on vocational centers, post-high school programs, and exemplary programs was continued. Another change was the shift from specific occupations to job clusters.

> . . . Entry into employment in occupational clusters or one of a group of related occupations will be established as the objective of instruction. The emphasis on more narrow preparation for entry with a focus on high proficiency levels in a specific occupation is being reduced to gain future flexibility and mobility. Such a shift holds strong implication, not only for curriculum development, but also for the personnel and for school-industry relationships.[8]

Parallel to the shift from emphasis on specific occupation to job clusters was the shift from focus on the needs of the labor force to focus on services to individuals to enable them to lead productive lives as employed members of society. Funds previously designated for specific occupational areas were transferred to services offered to meet the needs of individuals.

Another major theme in a number of the 1968 provisions was responsiveness to the needs of the state and local area. The plans and proposals of the states must be available to the public. Creation of the State Advisory Councils and the National Advisory Council established the communication link for advice, evaluation, and exchange

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[7]Gordon F. Culver, "Effects of Vocational Education on Business Teacher Education," Business Education Forum, XXV (December 1970), p. 43.

[8]Tomlinson, op. cit., p. 27.

with the public. State plans were required to set forth a long-range program with objectives for meeting state needs and an annual program plan describing allocation of funds at all levels. The State and National Advisory Councils were responsible for evaluating State Plans to insure programs of high quality which are realistic in light of actual and anticipated employment opportunities.

IV. EDUCATION AMENDMENTS OF 1976

The Education Amendments of 1976 (P.L. 94-482) were signed into law on October 12, 1976. The Amendments include five titles, of which Title II is Vocational Education.

The new legislature concerning occupational and vocational education allows for broad-based discretionary powers for state-level planning to determine how the available funds will be spent. Changes in the new provisions, or significance as far as the purpose is concerned, from the 1968 Amendments include: improved planning, maintaining existing programs and overcoming sex discrimination and sex stereotyping in programs, and providing part-time employment for needy youth.

Included in the allotments among states sections is the provision that at least one percent be spent for vocational programs for Indians. As far as state administration is concerned the state board is responsible for coordination of development of policy, submission of five-year state plans, annual program plans and accountability reports. Also, basic grants will be alloted for energy education programs, full-time personnel to eliminate sex discrimination, student placement services, support services for women, and day care services for children of students.

V. THE TENNESSEE STATE PLAN FOR VOCATIONAL EDUCATION

The policies and regulations for the operation and administration of all vocational programs in Tennessee are presented in its State Plan. The current State Plan is bound in one volume with three parts. Part I lists the procedures for the allocation of funds; Part II describes the policies and procedures for the five-year plan; and Part III describes the program needs, goals, enrollments, and allocation of funds.[9] Included in this volume is the requirements for planning programs in the business and office education area.

The goals of the Business and Office Education Service are an integral part within planning of Vocational Education and are adjusted to meet the desired potentials of the office occupations. Goals are established and reviewed each fifth year as published in Part III of the State Plan.

The responsibility of the Business and Office Education Service of the Tennessee State Department of Education is to develop its state plan of services; recommend allocation of state and federal funds for VOE programs; develop and approve certification standards for VOE personnel; establish standards and approve programs, facilities, and equipment for all levels of VOE; provide and develop leadership including pre-service and in-service training; provide and continue development of leadership in youth organizations; promote and approve

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[9]Tennessee Department of Education, Tennessee State Plan for Vocational Education, 1978-82.

research, pilot, and demonstration projects including evaluation; develop and disseminate curriculum materials; and retrieve information and provide other ancillary services for business and office education teachers within the overall VOE program for Tennessee.

VI. RESEARCH STUDIES

The following studies were examined because they are closely related in purpose and/or procedures to the present investigation.

Brown Study[10]

The purpose of the Brown Study, completed in 1970, was to compare selected factors in federally reimbursed and nonreimbursed courses in office procedures, second-year shorthand, and second-year typewriting at the secondary school level in eight Mid-Western States. For the survey secondary schools in the states comprising the North-Central Business Education Association were used; namely, Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Missouri, and Wisconsin.

Brown gathered data by sending questionnaires to public secondary school principals to secure names of instructors teaching each of the courses included in the study. A total of 625 instructors were eligible to receive an office procedures, second-year shorthand, or second-year typewriting questionnaire.

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[10]Kenneth Wayne Brown, "Study to Compare Selected Factors in Federally Reimbursed and Nonreimbursed Business Education Courses (Office Procedures, Second-Year Shorthand, Second-Year Typewriting) in Secondary Schools in Eight Mid-Western States," (Ed.D. dissertation, Northern Illinois University, Dekalb, 1970).

Brown found all reimbursed courses were one year in length and that they had more students enrolled, more sections of the course, and more minutes per day of class time than the nonreimbursed courses. No significant difference in terms of the amount of equipment and supplies was found between reimbursed and nonreimbursed courses. Background of instructors of reimbursed courses were not significantly different from those of instructors of nonreimbursed courses.

Echternacht Study[11]

Echternacht made a status study of BE in Missouri in 1970 by analyzing and comparing BE programs in the rural, suburban, and urban public high schools. Data for the study were obtained from State Department of Education records and publications; questionnaires mailed to a stratified random sample of BE teachers; and interviews with a stratified random sample of 30 BE teachers in Missouri schools.

Echternacht found the six most commonly offered BE courses in rank order to be: typewriting, bookkeeping, shorthand, basic business, secretarial practice, and clerical practice. During the school year 1968-69, 46.4 percent of all public schools in Missouri had reimbursed vocational BE programs.

In addition to the course offerings and pupil enrollments, Echternacht also surveyed the academic and professional training of the business teachers. Graduate degrees were earned by more urban

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[11]Lonnie Justice Echternacht, "A Comparative Study of Business Education in the Rural, Suburban, and Urban Public High Schools of Missouri," (Ed.D. dissertation, University of Missouri, Columbia, 1970).

teachers (47.8 percent) than by the suburban (42.2 percent) and rural (22.9 percent) teachers. Additional findings revealed that 92.5 percent of all Missouri BE teachers had acquired some type of office or business experience since entering the teaching profession.

According to the 30 BE teachers interviewed in the stratified random sample, Echternacht found that the instructional equipment and media most often needed were multiple-listening station laboratories, modern furniture for typewriting classrooms, adjustable demonstration stands for typewriting classrooms, and overhead projectors. A greater portion of the rural teachers than either suburban or urban teachers indicated a need for modern classroom furniture and adjustable demonstration stands for their typewriting classrooms.

In his chapter on business machines and equipment, Echternacht reported that a greater portion of both rural and suburban teachers interviewed felt their business machines were adequate or better than did the urban teachers. Teachers in schools with reimbursed BE programs appeared to be better satisfied with their business machines and equipment than the teachers in schools without such reimbursed programs.

The extent to which the 30 BE teachers in the three strata used instructional media was also a part of this study. One hundred percent of the teachers interviewed reported that they often used textbooks, 93.3 percent often used chalkboards, 83.3 percent often used practice sets, 80.0 percent often used workbooks, 63.3 percent often used bulletin boards, and 53.3 percent often used reference books. In addition, over one half of the teachers interviewed never made use of

the programmed textbooks or multiple-listening station laboratories. The suburban teachers interviewed made more frequent use of audio-visual teaching aides than either the rural or urban teachers.

Gump Study[12]

The purpose of Gump's 1973 study was to identify and describe the changes in course offerings, enrollments, teacher qualifications, facilities, equipment and class patterns in BE in the public senior high schools of Ohio since the passage of the National Vocational Education Act of 1963. Included in the specific factors investigated for the school years 1962-63 and 1971-72 were (1) the course and program offerings, (2) the student enrollments, (3) the highest degrees earned by the teachers, and (4) the total years of teaching experience of the business teachers. Current factors investigated because of their relationship to vocation funding were (1) the class patterns, (2) the classroom facilities and equipment, (3) the business and office machines, (4) the instructional materials and media, (5) the coordination and supervision by state and local supervisors, (6) the guidance and counseling program, and (7) the business-oriented youth organizations. The three major sources of the data for the study were Ohio State Department of Education records and publications for a proportional stratified random sample of 100 city, exempted village, and local high

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[12]John Edward Gump, "An Analysis of the Changes in Business Education in the Public Senior High Schools of Ohio since the Passage of the Vocational Education Act of 1963," (Ed.D. dissertation, The Ohio State University, Columbus, 1973).

schools; questionnaires sent to a proportional stratified random sample of twenty high schools; and personal interviews with principals and business and office education teachers in each of the twenty schools in the sample.

Since the Gump study is used for comparative purposes, the major findings of the study are listed below.

1. The number of schools accommodating five and six grade levels decreased, and the number of schools accommodating three and four grade levels increased.
2. The total number of business courses offered in the 100 schools decreased by twelve between 1962-63 and 1971-72, from 783 to 771. The median number of courses offered at the schools in 1962-63 was seven; in 1971-72, eight.
3. The three most popular courses in 1962-63 were Typing I, Bookkeeping I, and Shorthand I, offered by 99 percent, 98 percent and 96 percent of the schools, respectively, compared with Typing I, Bookkeeping I, and General Business in 1971-72, offered by 96 percent, 88 percent, and 80 percent, respectively.
4. Courses added to the curriculums of fifteen to twenty-six of the 100 schools were, in rank order, Personal Typing, Business Arithmetic, Consumer Economics and General Business. The courses deleted from the curriculums of twenty to twenty-seven were, in rank order, Shorthand II, Typing II, Clerical Practice, and Shorthand I.
5. The four courses with the greatest percentage of student enrollment in 1962-63 were, in rank order, Typing I, Bookkeeping I, Typing II, and Shorthand I. In 1971-72 the four courses with the greatest percentage of student enrollment were, in rank order, Typing I, General Business, Bookkeeping I, and Shorthand I.
6. The three most popular business and office occupations programs in the fifty-five reimbursed schools were, in rank order, Steno-Secretarial Related Occupations, offered in 61.8 percent of the schools, the Occupational Cooperative Program, offered in 45.5 percent of the schools, and General Office Clerk, offered in 30.9 percent of the schools.
7. Of the total business enrollment, 18.44 percent were taking one of the following programs: Steno-Secretarial Related Occupations, Typing and Related Occupations, General Office Clerk, or the Occupational Cooperative Program. Another 3.21 percent of the total business enrollment were taking one of the six other programs.
8. In 1962-63, 72.4 percent of the business teachers in the 100 high schools had an earned Bachelor's degree and 24.5 percent

had an earned Master's degree. The majority of the Master's degrees had been earned by exempted village teachers.

9. Twelve of the twenty teachers were fully certified to teach in the intensive office education programs and one was provisionally certified. None of the teachers had taught an average of four years in the intensive office education programs.

10. All of the twenty teachers in the visitation sample had business experience in office and/or related occupations. Five percent of the teachers had twenty to twenty-five years of work experience; 50 percent, five to fifteen years; and 45 percent, up to five years. The average number of years of work experience for the twenty teachers was about six years, and city teachers had more work experience than either exempted village or local teachers.

11. None of the classrooms in the twenty schools surveyed were equipped with collapsible walls to facilitate grouping of students. Ten of the twenty schools had multi-channel equipment. Eight of these had one classroom with this equipment and one city and one local school had two classrooms with multi-channel equipment.

12. All of the twenty teachers in the visitation sample indicated that they had access to chalkboards and filing cabinets. A total of 75 percent to 95 percent had access to bulletin boards, interval timers for typing, stopwatches, supply cabinets, and tables for bookkeeping classes. Thirteen of the teachers indicated that their schools had adjustable typing desks, twelve had adjustable typing chairs, and eight had demonstration stands. The percentage of reimbursed schools was equal to or greater than nonreimbursed schools for all items of classroom equipment except tables for shorthand students and copyholders for typing students.

13. Of the twenty business teachers interviewed, nine rated their classroom facilities and equipment as adequate, five rated them as somewhat adequate, and six rated them as inadequate. More of the city and exempted village teachers rated their equipment as somewhat adequate or better than did the local teachers. Almost one-half of the local teachers rated their classroom facilities and equipment as inadequate. A greater proportion of the teachers in reimbursed schools indicated that they felt their facilities and equipment were somewhat adequate or better. One half of the teachers at nonreimbursed schools rated their equipment as inadequate compared with 16.7 percent of the teachers at reimbursed schools.

14. All twenty schools included in the visitation sample had electric typewriters, 95 percent had manual typewriters, and 65 percent had long-carriage typewriters. A higher percentage of reimbursed schools than nonreimbursed schools had each of the different machines except for fluid duplicators and sorters.

15. Teachers in schools with reimbursable business and office occupations programs appeared to be better satisfied

with their business and office machines than was the case of the teachers in schools without such reimbursable programs.

16. A greater proportion of the reimbursed schools than the nonreimbursed schools had the different types of instructional materials and media. The city teachers made more frequent use of instructional materials and media than either exempted village or local teachers.

17. Ninety percent of the teachers rated the overall instructional materials and media for their business education departments adequate or somewhat adequate. A greater proportion of the teachers in reimbursed than nonreimbursed schools rated the materials and media as somewhat adequate or better and a greater proportion of the teachers in nonreimbursed schools than reimbursed schools rated the materials and media as inadequate.

18. All twenty teachers indicated their departments provided the guidance personnel with information about business courses and programs. Sixteen of the teachers confer with the business teachers concerning the selection of students for business and office education specialty programs. Thirteen of the teachers stated that their schools kept files of occupational information for use by teachers and students. On the average, business teachers and the guidance personnel were more actively involved in follow-up studies of business graduates and in job placement than were the business teachers and guidance personnel in exempted village and local schools.

19. The most popular business organization was the OEA club (Office Education Association). One half of the twenty teachers rated the importance of the youth organization in terms of individual benefits to students as very important; 41.7 percent of the teachers rated the organization as important; and 8.3 percent of the teachers rated the organization as not important.

Knott Study[13]

Knott evaluated the status of BE in Illinois (excluding Chicago) for the year 1968-69. Ninety-eight of the 102 counties in Illinois were represented in the study. A questionnaire was developed to collect data from the 648 public secondary schools. The returns totaled 500 usable replies.

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[13] James Francis Knott, "A Study of Business Education in the Public Secondary Schools of Illinois (Excluding Chicago)," (Ed.D. dissertation, Northern Illinois University, DeKalb, 1970).

Findings regarding the BE curriculum revealed that about 12 percent of the high schools required specific BE courses for graduation. Approximately 80 percent of the high schools indicated they offered a secretarial curriculum sequence, and over one half of the schools reported that they offered a general clerical sequence. More than 30 percent of the high schools indicated that they offered an office occupations sequence, and over 15 percent of the high schools listed the specific courses required or suggested for students who majored in an office occupations curriculum.

Approximately one out of every four high schools reported that their school participated in an area Vocational Center Program. The business course offered most frequently in the area vocational centers in which the high school participated was data processing.

In the area of equipment, it was found that schools were lacking a sufficient number of electric typewriters and office machines to provide students with minimum skills. It was also revealed that about one half of the schools needed more classrooms equipped with adjustable desks and chairs and demonstration stands.

As for community advisory committees, they were not used extensively to develop the business curricula in the responding schools. Advisory committees of local businessmen and women were found in about 10 percent of the high schools in the state.

Only 15 percent of the high schools had specific procedures for job placement of business graduates. The business department chairperson and/or the business teachers assumed an active role in job placement in

those schools that had more than one staff member performing the functions of job placement for high school students.

Follow-up studies of high school graduates were deemed important by over one third of the other respondents who maintained follow-up procedures for their graduates and by over one half of the other respondents who reported that, while they had not conducted follow-up studies, they believed that such studies were needed.

About 80 percent of the high schools maintained files of occupational information for use by business teachers and students. Their materials were rated as "excellent or satisfactory" by about two thirds of the respondents.

Pierce Study[14]

Pierce completed a doctoral study in 1968 in an attempt to determine the degree of impact exerted by the Vocational Education Act of 1963 on BE in the public secondary schools of Missouri with implications of this impact for teacher preparation. Data for the study were obtained from the following sources: (1) files of the Vocational Division of the State Department of Education, and (2) a questionnaire that was submitted to 251 teachers holding active certification during the 1967 school year. Information obtained from these sources was tabulated and compared to ascertain changes occurring in the:

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[14]Robert Benjamin Pierce, "An Analysis of the Impact of the Vocational Education Act of 1963 on Business Education in the Public Secondary Schools of Missouri with Implications for Teacher Preparation," (Ph.D. dissertation, The University of Iowa, Iowa City, 1968).

1. general characteristics, academic competency, and professional advancement of the instructional personnel
2. business and office curricular offerings of the public secondary schools of Missouri and
3. enrollments in the business and office education courses at the public secondary school level in Missouri.

Pierce arrived at the following conclusions concerning the degree of impact exerted by the Vocational Act of 1963 on business and office education in the public secondary schools of Missouri.

1. Vocational business and office education has been given increased recognition by the Missouri State Department of Education as a result of the Vocational Education Act of 1963. The vocational business and office education area has been afforded equal status in the Missouri State Plan for Vocational Education with the older vocational programs in agriculture, home economics, and distributive education.
2. The addition of two staff members to the Vocational division of the State Department of Education has facilitated the development of a screening process for the selection of instructional personnel which enables the public secondary schools of Missouri to obtain qualified instructional personnel.
3. The Vocational Education Act of 1963 has had considerable impact on the business teachers who have been approved to teach under the provisions of the state plan. Vocational business and office instructional personnel have been motivated by certification requirements to obtain academic preparation in the form of professional vocational courses.
4. A large percentage of the school districts in the state were offering vocational business and office courses after the passage of the Act than were doing so prior to the passage of the Act. The impact of the Vocational Education Act of 1963 is reflected in this increase in the number of school districts offering vocational business and office courses.
5. The majority of the certified vocational business and office teachers in Missouri received their most recent degree from an out-of-state institution. Insufficient instructional personnel are being trained by institutions within the state to meet the needs of the vocational business and office program in Missouri.
6. An increasing number of students in the public secondary school of Missouri are taking advantage of the opportunity provided for vocational business and office training since the passage of the Act.

VII. SUMMARY

This chapter included a review of related research since 1961 and a summarization of some of the provisions of the Vocational Education Act of 1963, the Vocational Education Amendments of 1968, the Education Amendments of 1976, and the Tennessee State Plan for Vocational Education. A review of this legislation was essential to an understanding of the problem.

The research studies reviewed in this study all surveyed BE at the secondary level. The present study differs from these previous studies in that it was limited to the public senior high schools of Tennessee. No previous study has concentrated on Tennessee since the passage of the Vocational Education Act of 1963.

The BE course offerings and VOE programs and student enrollments in Tennessee public senior high schools are given in Chapter III.

CHAPTER III

BUSINESS EDUCATION COURSE OFFERINGS AND VOCATIONAL OFFICE EDUCATION PROGRAMS AND STUDENT ENROLLMENTS IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS

I. INTRODUCTION

In this chapter data concerning the BE course offerings and the VOE program offerings and student enrollments in these courses and programs were presented for the 1962-63 and 1976-77 school years. Student enrollments in the various courses and programs, along with the percent of total business enrollment and total school population enrolled in business courses and programs, were also reported in an attempt to analyze the changes in the BE curriculum since the passage of the Vocational Education Act of 1963. To list the course and program offerings for a comparative analysis, data concerning the total number of courses and programs per school and the number of schools offering each course and program during the 1962-63 and 1976-77 school years were included. To report student enrollments in courses and programs, data concerning the total student enrollment in each course, the percentage of business students enrolled in each course, and the percentage of total student population in each course in 1962-63 and 1976-77 were included.

The procedures used to gather the data for this chapter were described in Chapter I, page 11. This method involved the examination of the 1962-63 preliminary reports of high school principals and a 1976-77 computer printout form for each school represented in the sample of 260 teachers. By abstracting information from these two reports from the Tennessee State Department of Education, information on BE courses and VOE programs and student enrollment for the school years of 1962-63 and 1976-77 were obtained. The researcher also visited 17 schools for checking the reliability of the data.

The method used to select the schools for this chapter is described in Chapter I, page 12. For this chapter, 96 schools were used for the comparative study of data on courses, programs, and enrollment for the school years 1962-63 and 1976-77. Initially, it was necessary to drop 87 of the 183 different schools represented by the 260 teachers because of changes such as consolidation, newly organized schools or because the reports of the high school principals could not be located. Of the total 96 schools represented, there were 249 BE teachers and 41 VOE teachers. This information was obtained from the 1974-76 BE and VOE directories.

II. GRADE LEVELS INCLUDED IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS

The 96 public senior high schools represented by the sample of 260 teachers were classified according to their size—small (1-499 students), medium (500-1499 students), and large (1500 or more students).

In 1962-63 the number of grades accommodated at the senior high schools ranged from three to six grades. The number and percent of the 96 public senior high schools represented with three, four, five, and six grade levels are shown in Table 1. Of the total 96 schools, 41 were classified as small, 50 medium, and 5 large high schools. Of the 96 schools, 51, or 53.1 percent, included grades 9-12; 21, or 21.9 percent, included for each of the grades 7-12 and grades 10-12; and 3, or 3.1 percent, included grades 8-12. Of the 41 small schools, 22, or 53.7 percent, included grades 9-12; 16, or 39.0 percent, included grades 7-12; 2, or 4.9 percent, included grades 10-12; and 1, or 2.4 percent, included grades 8-12. Of the 50 medium schools, 27, or 54.0 percent, included grades 9-12; 17, or 34.0 percent, included grades 10-12; 4, or 8.0 percent, included grades 7-12; and 2, or 4.0 percent, included grades 8-12. Of the 5 large schools, 2, or 40.0 percent, included for each of the grades 9-12 and grades 10-12; 1, or 20.0 percent, included grades 7-12; and none of the large schools included grades 8-12.

Table 1

GRADES INCLUDED IN 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS DURING THE 1962-63 SCHOOL YEAR

Grades Included	Classification of High Schools							
	Small		Medium		Large		Total	
	N	%	N	%	N	%	N	%
7-12	16	39.0	4	8.0	1	20.0	21	21.9
8-12	1	2.4	2	4.0	—	0.0	3	3.1
9-12	22	53.7	27	54.0	2	40.0	51	53.1
10-12	2	4.9	17	34.0	2	40.0	21	21.9
Totals	41	100.0	50	100.0	5	100.0	96	100.0

In 1976-77, the number and percent of the 96 public senior high schools represented with three, four, five, and six grade levels are shown in Table 2. Of the total 96 schools, 49 were classified as small, 43 medium, and 4, large high schools. Of the 96 schools, 39, or 40.6 percent, included grades 9-12; 32, or 33.3 percent, included grades 10-12; 23, or 24.0 percent, included grades 7-12; and 2, or 2.1 percent, included grades 8-12. Of the 49 small schools, 23, or 47.0 percent, included grades 9-12; 18, or 36.7 percent, included grades 7-12; 7, or 14.3 percent, included grades 10-12; and 1, or 2.1 percent, included grades 8-12. Of the 43 medium schools, 23, or 53.5 percent, included grades 10-12; 14, or 32.6 percent, included grades 9-12; 5, or 11.6 percent, included grades 7-12; and 1, or 2.3 percent, included grades 8-12. Of the 4 large schools, 2, or 50.0 percent, included for each of the grades 10-12 and grades 9-12; and none of the large schools included grades 7-12 or 8-12.

Table 2

GRADES INCLUDED IN 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS DURING THE 1976-77 SCHOOL YEAR

Grades Included	Classification of High Schools							
	Small		Medium		Large		Total	
	N	%	N	%	N	%	N	%
7-12	18	36.7	5	11.6	—	0.0	23	24.0
8-12	1	2.0	1	2.3	—	0.0	2	2.1
9-12	23	47.0	14	32.6	2	50.0	39	40.6
10-12	7	14.3	23	53.5	2	50.0	32	33.3
Totals	49	100.0	43	100.0	4	100.0	96	100.0

When comparing the data in Table 1 with Table 2 concerning the size of schools in 1962-63 and 1976-77, there was a shift from the 9-12 grade category to the 10-12 grade category as the most common grade category for the total 96 schools. The least popular category for all three classifications of schools was 8-12. The largest number of small schools remained in the 9-12 grade category in 1976-77; however, there was a slight shift to the 10-12 grade category. In the medium schools, there was a shift from 9-12 to 10-12 grade category from 1962-63 to 1976-77 school year. The large schools remained the same (9-12 and 10-12 each with 50 percent) except for one large school experiencing declining enrollment from 1962-63 to 1976-77. A slight change in the number of schools for each grade classification from 1962-63 to 1976-77 was evident. For example, in 1962-63, of the 96 schools, 41 were classified as small as contrasted with 49 in 1976-77; in 1962-63, 50, small, with 43 in 1976-77; and in 1962-63, 5, large, with 4 in 1976-77. The most dominant grade arrangements appear to be 9-12 and 10-12 for both 1962-63 and 1976-77 school years.

III. NUMBER OF BUSINESS EDUCATION COURSES OFFERED IN 1962-63 AND 1976-77

As shown in Table 3, of the total 96 schools represented in the 1962-63 school year, 41 were classified as small, 50, medium, and 5, large high schools. Of the 96 schools, 52, or 54.2 percent, offered 4-5 BE courses; 18, or 18.7 percent, 6-7 BE courses; 15, or 15.6 percent, 3 courses; 6, or 6.3 percent, 1-2 courses; and 5, or 5.2 percent, 8-9 courses. No school offered more than 9 courses.

Table 3

NUMBER OF BUSINESS EDUCATION COURSES OFFERED IN 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS DURING THE 1962-63 SCHOOL YEAR

Number of Courses Offered	Classification of High Schools							
	Small		Medium		Large		Total	
	N	%	N	%	N	%	N	%
1	1	2.4	1	2.0	—	0.0	2	2.1
2	4	9.8	—	0.0	—	0.0	4	4.2
3	12	29.3	2	4.0	1	20.0	15	15.6
4	15	36.6	13	26.0	—	0.0	28	29.2
5	6	14.6	17	34.0	1	20.0	24	25.0
6	2	4.9	9	18.0	1	20.0	12	12.5
7	1	2.4	4	8.0	1	20.0	6	6.2
8	—	0.0	2	4.0	1	20.0	3	3.1
9	—	0.0	2	4.0	—	0.0	2	2.1
Totals	41	100.0	50	100.0	5	100.0	96	100.0

Of the 41 small schools, 27, or 64.3 percent, offered 3-4 BE courses; 8, or 19.1 percent, 5-6 BE courses; 5, or 12.2 percent, 1-2 courses; 1, or 2.4 percent, 7 courses; and none of the small schools offered 8 or more courses.

Of the 50 medium schools, 30, or 60.0 percent, offered 4-5 BE courses; 13, or 26.0 percent, offered 6-7 BE courses; 4, or 8.0 percent, 8-9 courses; 3, or 6.0 percent, 1-3 courses; and none of the medium schools offered 2 courses.

Of the 5 larger schools, 1, or 20.0 percent, offered 3, 5, 6, 7, or 8 BE courses; and none offered 1, 2, 4, or 9 courses.

As shown in Table 4, of the total 96 schools represented in the 1962-63 school year, 49 were classified as small, 43, medium, and 4,

Table 4

BUSINESS EDUCATION COURSES OFFERED IN 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS DURING THE 1976-77 SCHOOL YEAR

Number of Courses Offered	Classification of High Schools							
	Small		Medium		Large		Total	
	N	%	N	%	N	%	N	%
1	1	2.0	—	0.0	—	0.0	1	1.0
2	1	2.0	—	0.0	—	0.0	1	1.0
3	5	10.2	1	2.3	—	0.0	6	6.3
4	16	32.7	2	4.7	—	0.0	18	18.8
5	16	32.7	8	18.6	2	50.0	26	27.1
6	5	10.2	13	30.2	1	25.0	19	19.8
7	4	8.2	6	14.0	—	0.0	10	10.4
8	1	2.0	8	18.6	—	0.0	9	9.4
9	—	0.0	3	7.0	—	0.0	3	3.1
10	—	0.0	1	2.3	1	25.0	2	2.1
11	—	0.0	—	0.0	—	0.0	—	0.0
12	—	0.0	—	0.0	—	0.0	—	0.0
13	—	0.0	1	2.3	—	0.0	1	1.0
Totals	49	100.0	43	100.0	4	100.0	96	100.0

large high schools. Of the 96 schools, 44, or 45.9 percent, offered 4-5 BE courses; 29, or 30.2 percent, 6-7 BE courses; 6, or 6.3 percent, 3 courses; 2, or 2.0 percent, 1-2 courses; 12, or 12.5 percent, 8-9 courses; and 3, or 3.1 percent, offered 10 or more courses.

Of the 49 small schools, 21, or 42.9 percent, offered 3-4 BE courses; 21, or 42.9 percent, 5-6 BE courses; 2, or 4.0 percent, 1-2 courses; 5, or 10.2 percent; 7-8 courses; and none of the small high schools offered more than 9 courses.

Of the 43 medium schools, 10, or 23.3 percent, offered 4.5 BE courses; 19, or 44.2 percent, 6-7 BE courses; 11, or 69.8 percent,

8-9 courses; 3, or 7.0 percent, 3-4 courses; 2, or 4.6 percent, 10 or more courses.

Of the 4 large schools, 3, or 75.0 percent, offered 5-6 BE courses; 1, or 25.0 percent, offered 10 courses; and none offered 1-7, 8, 9, 11, 12, or 13 courses.

As shown in Figure 1, when comparing the numbers of total courses offered by 96 schools for 1962-63 and 1976-77 years, the mode shifted from 4 courses to 5 courses. In 1962-63, of the total 96 schools, 66.7 percent (64) offered 4-6 BE courses; and in 1976-77, 65.6 percent (63) offered 4-6 BE courses.

In 1962-63, of the total 96 schools, 21.9 percent (21), offered 1-3 BE courses; and in 1976-77, 8.3 percent (8), offered 1-3 BE courses. In 1962-63, 11.5 percent (10), offered 7 or more courses; and in 1976-77, 26.0 percent (25), offered 7 or more courses. In 1976-77, one school offered 13 different BE courses.

For the 1976-77 school year, there was a decrease in the number of the 96 schools offering 1-4 courses and an increase in the number of schools offering 5 or more courses. Between 1962-63 and 1976-77, schools tended to offer more business courses. For example, from 1962-63 to 1976-77, there was a decrease in the number of the 96 schools offering 1-4 courses as evidenced by 51.1 percent (49) in 1962-63 and 27.1 percent (26) in 1976-77. From 1962-63 to 1976-77 there was an increase in the number of 96 schools offering 5 or more courses as evidenced by 48.9 percent (47) in 1962-63 and 72.9 percent in 1976-77.

From 1962-63 to the 1976-77 school year the mode increased from 4 to 5. There was a tendency towards offering more BE courses. There

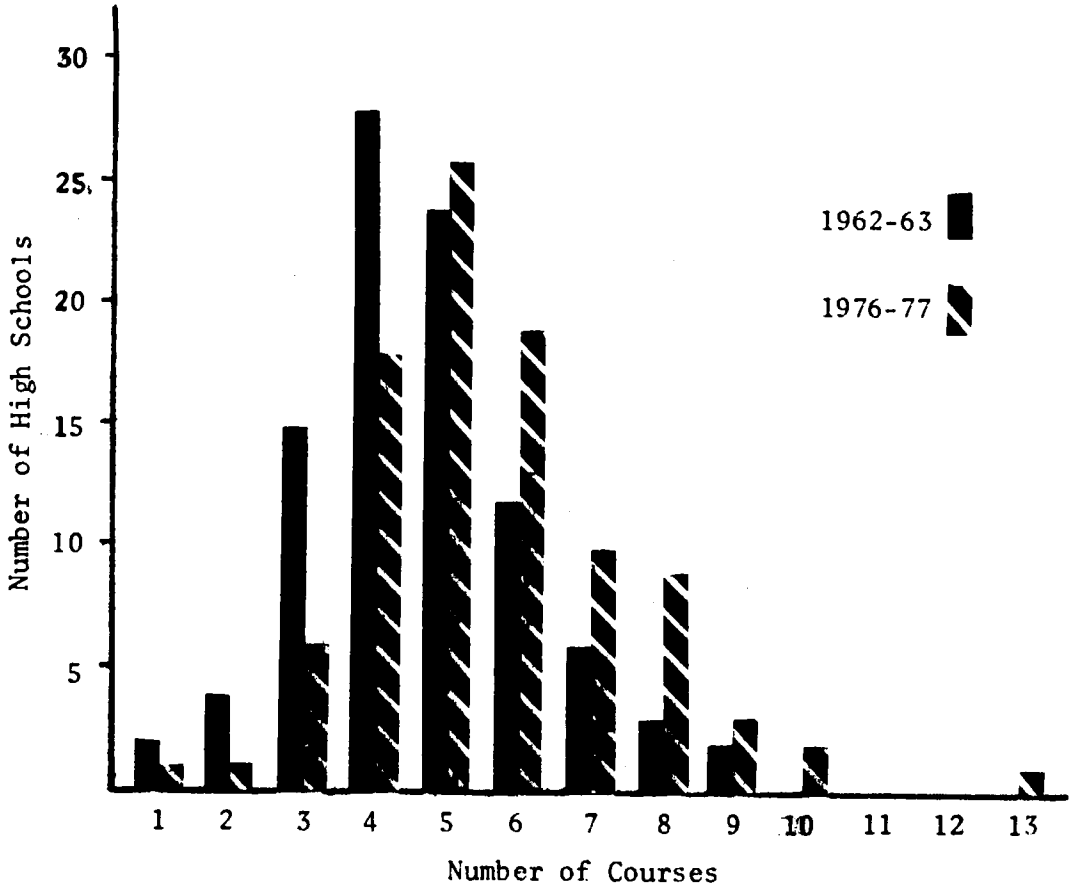

Figure 1. Increase or Decrease in the Number of Business Education Courses Offered in 96 Tennessee Public Senior High Schools between 1962-63 and 1976-77.

was also a decrease in the number of schools offering 1-4 courses and an increase in the number of schools offering 5 or more BE courses.

IV. BUSINESS EDUCATION COURSE OFFERINGS IN 1962-63 AND 1976-77

The 1976-77 preliminary report form from the Tennessee State Department of Education includes a total of 17 different BE courses with the 3700 code for BE and 4 different reimbursed VOE programs with the 4060 code. They are as follows:

Business Education	Vocational Office Education
Bookkeeping I	Bookkeeping
Bookkeeping II	Business Data Processing
Shorthand I	Office Clerical
Shorthand II	Stenographic
Typewriting I	
Typewriting II	
Business Arithmetic	
Business English	
Business Law	
Business Machines	
Clerical or Office Practice	
Secretarial Practice	
Consumer Economics	
General Business	
Salesmanship	
Principles of Business	
Vocational Office Education	

The 1976-77 Rules, Regulations, and Minimum Standards[1] for the State of Tennessee lists the following 11 BE courses and 5 reimbursed blocked-time VOE programs:

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[1]Rules, Regulations, and Minimum Standards, Tennessee State Board of Education, 1976-77, pp. 85-88.

Business Education Courses	Vocational Office Education
Bookkeeping	Introduction to VOE (1 period)
Business Arithmetic	VOE Stenography (1 period)
Business English	VOE I (2 or 3 periods)
Business Law	Stenographic/Secretarial (VOEST)
Business Machines	Clerical Machine Operator (VOECL)
Office Practice	Bookkeeping/Accounting (VOEBK)
Consumer Economics	Data Processing (VOEDP)
Principles of Business	Supervisory/Management (VOESM)
Shorthand	
Typewriting	
General Business	

The 1961-63 Rules, Regulations, and Minimum Standards[2] for the State of Tennessee listed only the above BE courses except Consumer Economics. In addition to the above BE list, Consumer Education, Salesmanship, and Secretarial Practice were listed as courses in 1963.

The 1976-77 preliminary report form from the Tennessee State Department of Education listed courses (Secretarial Practice, Salesmanship, and VOE) which were not included in the 1976-77 Rules, Regulations, and Minimum Standards Consumer Economics was added to the 1976-77 Rules, Regulations, and Minimum Standards between the 1962-63 and 1976-77 school years. Consumer Education, Salesmanship, and Secretarial Practice were deleted from the Rules, Regulations, and Minimum Standards between the 1962-63 and 1976-77 school years. In addition, the 1976-77 preliminary report form did not include the VOE I, nor the Supervisory/Management program listed in the Rules, Regulations, and Minimum Standards.

Only one BE course (Consumer Economics), two VOE courses (Introduction to VOE and VOE Stenography I—taught as BE courses),

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[2]Rules, Regulations, and Minimum Standards, Tennessee State Board of Education, 1961-63, p. 51.

and 5 reimbursed VOE programs were added to the BE curriculum during the 15-year span from 1962-63 to 1976-77. Consumer Education, Salesmanship, and Secretarial Practice were dropped from the 1976-77 Rules, Regulations, and Minimum Standards as BE courses by 1976-77; but, only consumer education was dropped from the preliminary report forms.

According to a Tennessee State Department of Education source, Introduction to VOE and VOE Stenography were eligible for federal reimbursement but had not been included as funded programs up to 1978; therefore, these two courses had been considered as BE courses and had been taught as the traditional BE courses (1 period).

None of the 96 schools represented in this study offered VOE Stenography I or Principles of Business. In 1962-63, none of the 96 schools offered Salesmanship.

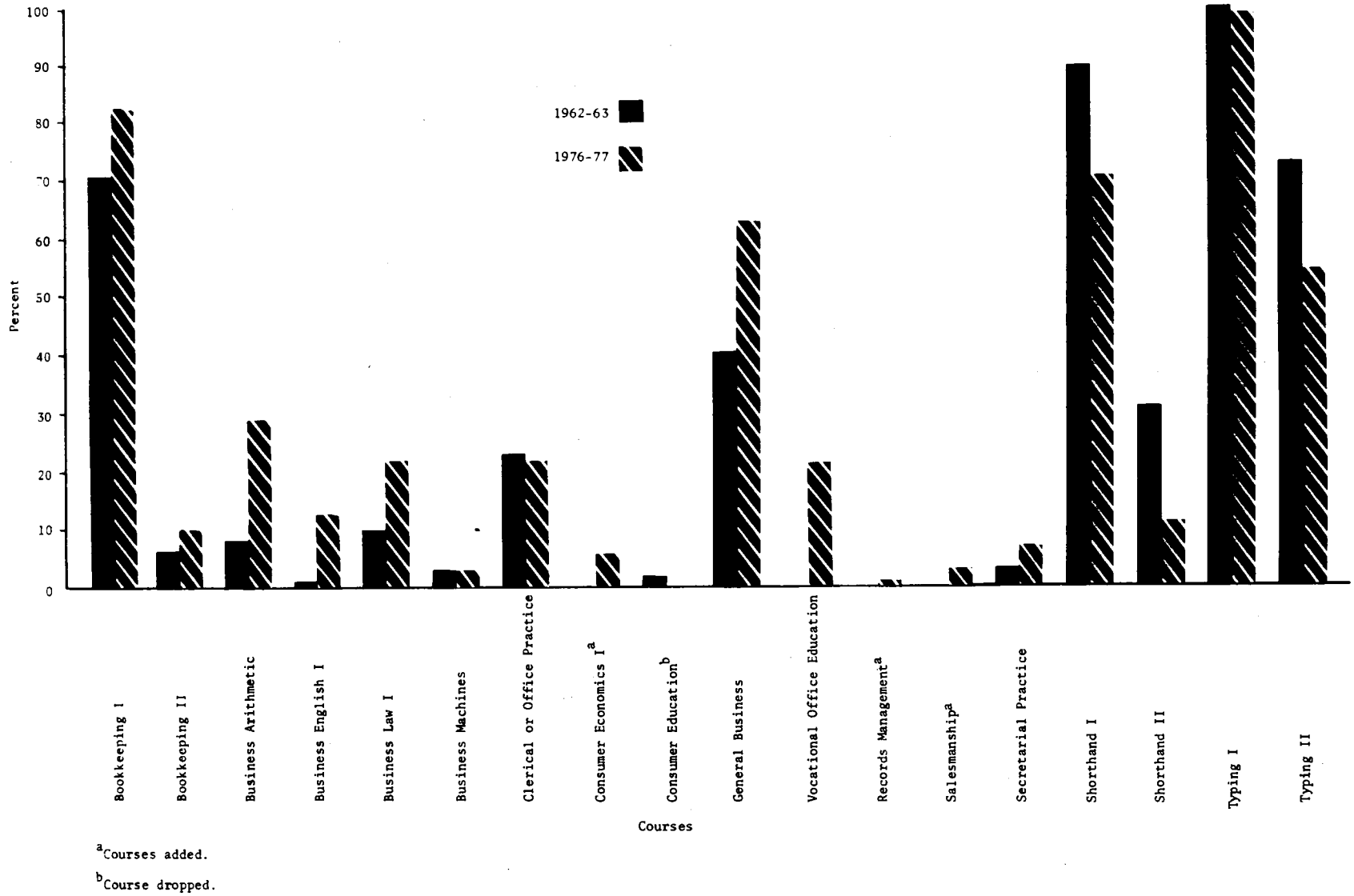
Of the 96 schools represented in this study, 96 offered nonreimbursed BE courses and only 29 offered reimbursed VOE programs.

In 1962-63, as shown in Figure 2, the most popular BE courses offered by over 50 percent of the total 96 schools were (in rank order):

Typing
Shorthand I
Typing II
Bookkeeping I

In 1976-77, the most popular BE courses offered by over 50 percent of the total 96 schools were (in rank order):

Typing I
Bookkeeping I
Shorthand I
General Business
Typing II



[a]Courses added.

[b]Course dropped.

Figure 2. Percent of 96 Tennessee Public Senior High Schools Offering the Different Business Education Courses during the 1962-63 and 1976-77 School Years.

In 1962-63, the most popular business courses offered by less than 50 percent of the total 96 schools were (in rank order):

General Business
Shorthand II
Clerical or Office Practice
Business Law I
Business Arithmetic I
Bookkeeping II
Secretarial Practice I
Business Machines
Consumer Education
Business English I

In 1976-77, the most popular BE courses offered by less than 50 percent of the total 96 schools were (in rank order):

Business Arithmetic I
Business Law I
Clerical or Office Practice
Introduction to VOE
Business English I
Shorthand II
Bookkeeping II
Secretarial Practice
Consumer Economics I
Business Machines
Salesmanship
Records Management

Comsumer Economics, Introduction to VOE, Records Management (a course taught in one school but not listed in the 1976-77 Rules, Regulations, and Minimum Standards as a course in the curriculum) and Salesmanship (a course removed from the 1976-77 Rules, Regulations, and Minimum Standards) were courses added to the curriculums of the total 96 schools between the 1962-63 and 1976-77 school years. Consumer Education was dropped from the curriculum between the 1962-63 and 1976-77 school years.

The most popular courses in the 96 schools represented during the 1962-63 and 1976-77 school years were (in rank order):

Typing I
Bookkeeping I
Shorthand I
Typing II
General Business

The courses showing an increase in popularity in the 96 schools represented between 1962-63 and 1976-77 school years were (in rank order):

Bookkeeping I
General Business
Business Arithmetic I
Business Law I
Business Machines
Business English I
Bookkeeping II
Secretarial Practice I

The courses showing a decrease in popularity in the 96 schools between the 1962-63 and 1976-77 school years were (in rank order):

Typing I
Shorthand I
Typing II
Shorthand II
Clerical Office Practice

In 1962-63, the three most popular BE courses in the total 96 schools were (in rank order):

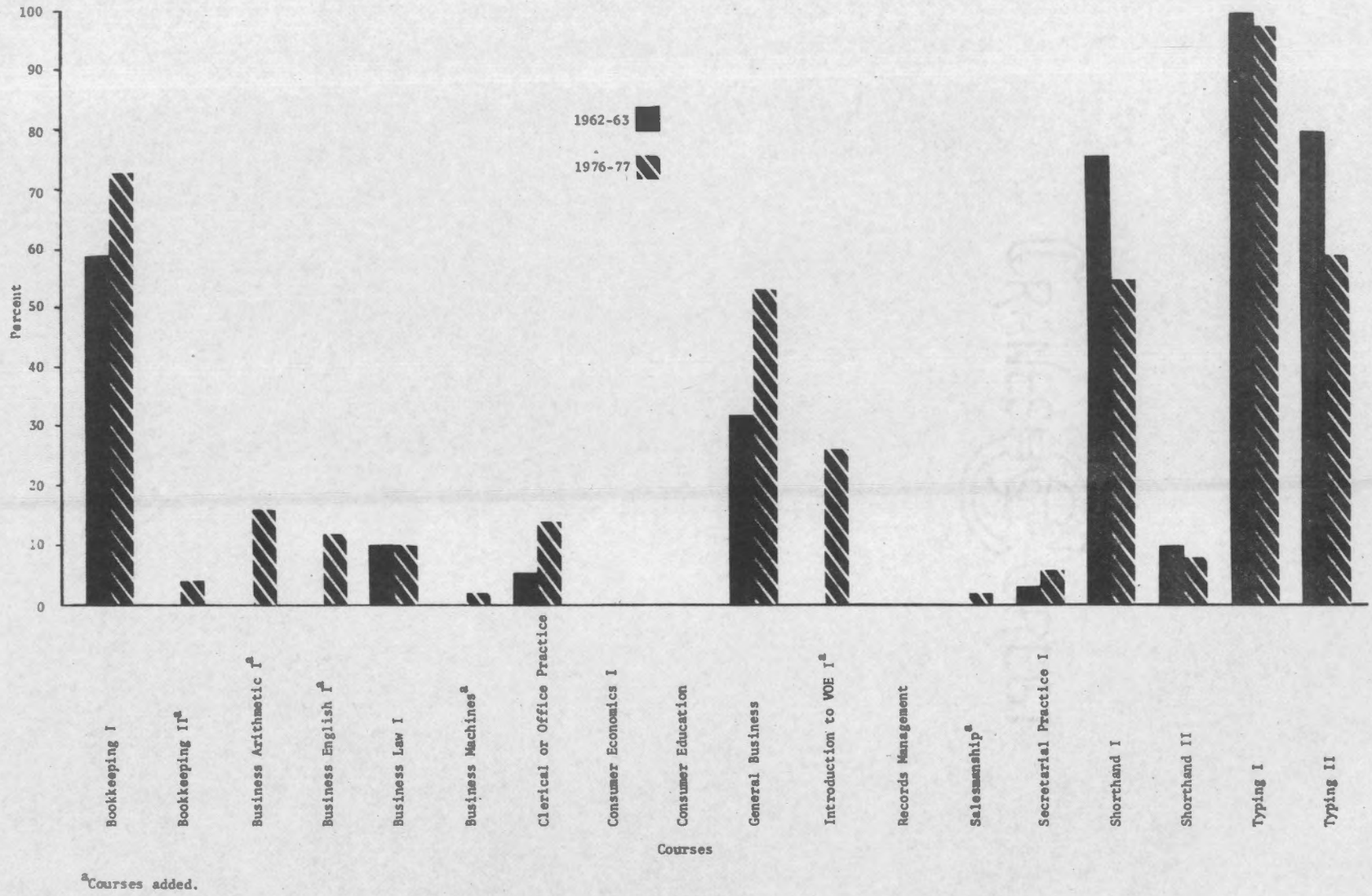
Typing I
Shorthand I
Typing II

In 1976-77, the three most popular BE courses were (in rank order):

Typing I
Bookkeeping I
Shorthand I

The following information concerning the total 96 schools represented in this study are now presented by school size.

As shown in Figure 3 in 1962-63, courses added to the curriculums of the 41 small schools between 1962-63 and 1976-77 were:



[a]Courses added.

Figure 3. Percent of 41 Small High Schools in 1962-63 and 49 Small Schools in 1976-77 Offering the Different Business Education Courses.

Bookkeeping II
Business Arithmetic I
Business English I
Business Machines
Introduction to VOE I
Salesmanship

Courses showing the greatest increase in the small schools between the 1962-63 and 1976-77 school years were:

Business Arithmetic I
General Business
Introduction to VOE I

Courses showing the greatest decrease were Shorthand I and Typing II.

As shown in Figure 4 in 1962-63, courses added to the curriculums of the medium schools between 1962-63 and 1976-77 were:

Consumer Economics I
Introduction to VOE
Records Management
Salesmanship

Courses showing the greatest increase in the medium schools during the 1976-77 school year were:

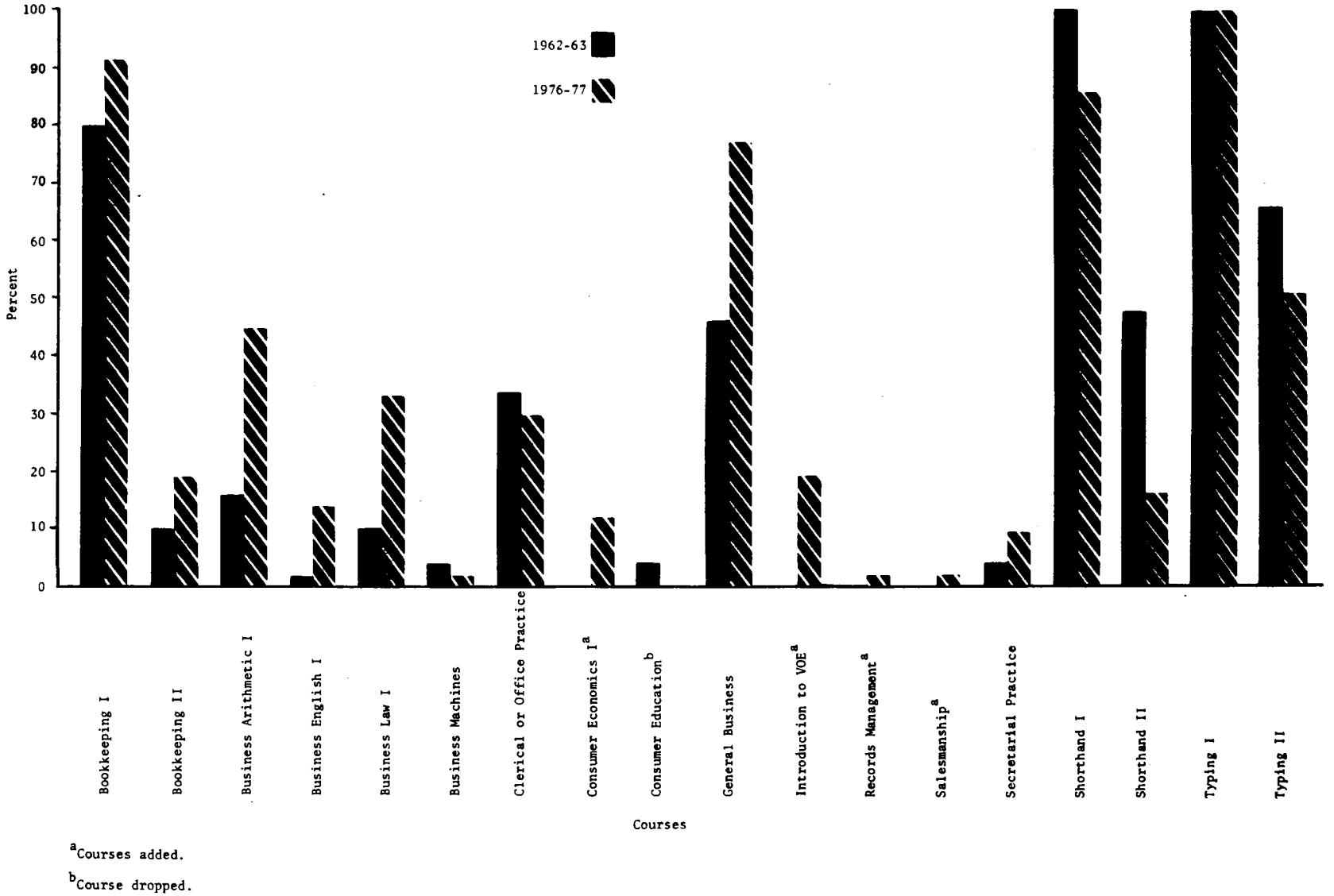
General Business
Shorthand I
Typing I
Typing II

Courses showing the greatest decrease in the medium schools during the 1976-77 school year were:

Shorthand I
Shorthand II
Typing II

As shown in Figure 5 in 1962-63, of the 5 large schools, the following BE courses were not offered:

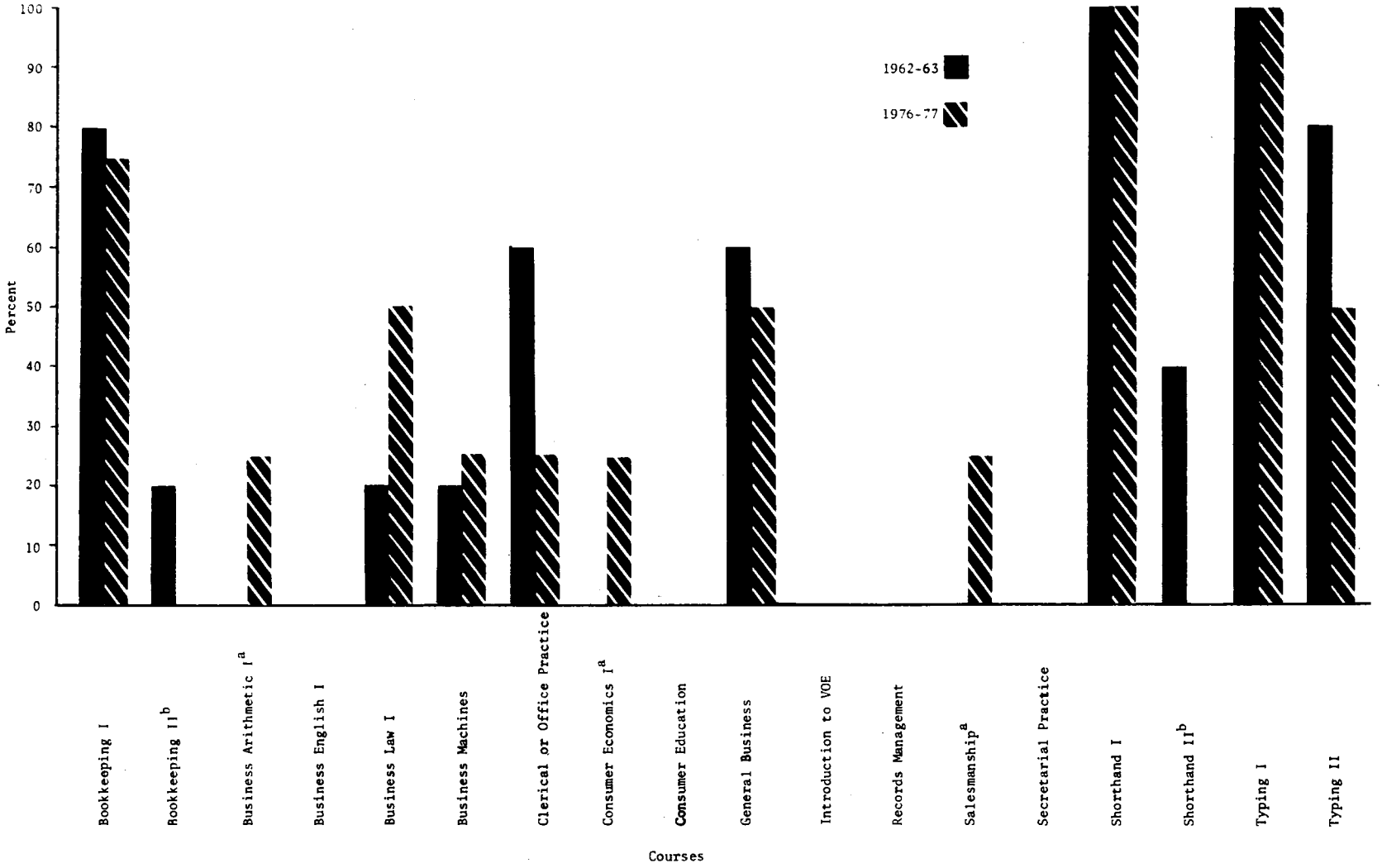
Business Arithmetic I
Business English I
Consumer Education
Secretarial Practice



[a]Courses added.

[b]Course dropped.

Figure 4. Percent of 50 Medium High Schools in 1962-63 and 43 Medium Schools in 1976-77 Offering the Different Business Education Courses.



[a]Courses added.

[b]Course dropped.

Figure 5. Percent of Five Large High Schools in 1962-63 and Four Large High Schools in 1976-77 Offering the Different Business Education Courses.

In 1976-77, of the 4 large schools, the following BE courses were not offered:

Bookkeeping II
Business English I
Secretarial Practice
Shorthand II

Courses added to the curriculums of the large schools between 1962-63 and 1976-77 were:

Business Arithmetic I
Consumer Economics I
Salesmanship

The course showing the greatest increase in the large schools between the 1962-63 and 1976-77 school years was Business Law I.

The courses showing the greatest decrease in the large schools between the 1962-63 and 1976-77 school years were:

Clerical or Office Practice
General Business
Typing II

V. ENROLLMENTS

The percent of total school population enrolled in the individual BE courses in 1962-63 and 1976-77, as well as the percent of the total business enrollment, is given in this section.

As reported by the high school principals in 1962-63, the total school enrollment was 62,065—the sum of the total enrollment in each of the 96 schools represented. In 1976-77, the total school enrollment was 63,970—an increase of 3.1 percent. The total adjusted school enrollment in 1976-77 was 68,030—the student enrollment in programs

was multiplied by three to compensate for block programs usually averaging three traditional class periods. From 1962-63 to 1976-77, total adjusted school enrollment increased 9.6 percent.

In 1962-63, the total business enrollment (26,063) in the 96 schools represented was calculated by adding the total enrollments in each of the courses; therefore, it is not an exact count of the total student body electing BE as their major field of study. The figure is overstated by counting the same students taking two or more business courses. The figure is also not restricted to full-time business students but includes the nonbusiness students taking one or more of the courses on an elective basis. Courses such as General Business and Consumer Education were often recommended as electives for nonbusiness students.

In 1976-77, the total business enrollment was 32,302—an increase of 24 percent over the 1962-63 school year. In 1976-77, the total adjusted business enrollment was 38,392—the student enrollment in programs was multiplied by three to compensate for block programs usually averaging three traditional class periods. From 1962-63 to 1976-77, total adjusted business enrollment increased 47.3 percent.

In 1962-63, 42 percent of the total school enrollment was in business courses; in 1976-77, 56 percent. From 1962-63 to 1976-77 there was a 14 percent increase in business enrollment. In 1976-77, of the total business enrollment (38,392), 16 percent of the "students" were enrolled in VOE programs.

Business Education Course Enrollments in 1962-63 and 1976-77

As shown in Table 5 for the 1962-63 school year, the most popular course was Typing I, offered by 100 percent of the total 96 schools. Other courses offered in the curriculum of the 96 schools were Shorthand I (89.6 percent), Typing II (72.9 percent), Bookkeeping I (70.8 percent), General Business (40.6 percent), Shorthand II (31.3 percent), and Clerical or Office Practice (22.9 percent). The other courses were offered by less than 20 percent of the total schools (in rank order): Business Law I, Business Arithmetic I, Bookkeeping II, Business Machines, Secretarial Practice, Consumer Education and Business English I.

The most popular course according to BE student enrollment of 26,063 was Typing I (42.89 percent). The other popular BE courses were Bookkeeping I (13.49 percent), Shorthand I (12.95 percent), Typing II (11.63 percent), and General Business (11.35 percent). The business enrollment totaling less than 3 percent were in the following courses: Clerical or Office Practice, Shorthand II, Business Arithmetic I, Business Law I, Bookkeeping II, Business Machines, Consumer Education, Secretarial Practice and Business English I.

The most popular course according to total school enrollment of 62,065 was Typing I (18.01 percent), followed by Bookkeeping I (5.66 percent), Shorthand I (5.44 percent), Typing II (4.88 percent), General Business (4.77 percent), Clerical or Office Practice (1.11 percent), and Shorthand II (1.09 percent). The other BE courses offered showed less than 1 percent of total school enrollment (in rank

Table 5

TOTAL SCHOOL ENROLLMENT IN BUSINESS EDUCATION COURSES AS REPORTED BY 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS AND DISTRIBUTED BY INDIVIDUAL COURSES DURING THE 1962-63 SCHOOL YEAR

Course Title	Schools Offering Course		Student Enrollment	Percent of Total Business Enrollment[a]	Percent of Total School Enrollment[b]
	N	%			
Bookkeeping I	68	70.8	3,515	13.49	5.66
Bookkeeping II (second year)	6	6.3	117	0.45	0.19
Business Arithmetic I	8	8.3	411	1.58	0.66
Business English I	1	1.0	25	0.10	0.04
Business Law I	10	10.4	289	1.11	0.47
Business Machines	3	3.1	77	0.30	0.12
Clerical or Office Practice	22	22.9	690	2.65	1.11
Consumer Education[c]	2	2.1	68	0.26	0.11
General Business	39	40.6	2,958	11.35	4.77
Secretarial Practice	3	3.1	65	0.25	0.10
Shorthand I	86	89.6	3,375	12.95	5.44
Shorthand II (second year)	30	31.3	678	2.60	1.09
Typing I	96	100.0	11,179	42.89	18.01
Typing II (second year)	70	72.9	3,030	11.63	4.88

[a]The total enrollment in BE courses for 1962-63 was 26,063.

[b]The total school enrollment for 1962-63 was 62,065.

[c]Course dropped from the curriculums between the 1962-63 and the 1976-77 school years.

order): Business Arithmetic I, Business Law I, Bookkeeping II, Business Machines, Consumer Education, Secretarial Practice, and Business English I.

As shown in Table 6 for the 1976-77 school year, the most popular course was Typing I, offered by 99.0 percent of the total 96 schools. Other courses offered in the curriculum of the 96 schools were Bookkeeping I (81.3 percent), Shorthand I (70.8 percent), General Business (63.5 percent), Typing II (55.2 percent), Business Arithmetic (29.2 percent), Business Law I, Clerical or Office Practice, and Introduction to VOE I (21.9 percent). The other courses were offered by less than 20 percent of the total schools (in rank order): Business English I, Shorthand II, Bookkeeping II, Secretarial Practice, Consumer Economics, Business Machines, Salesmanship, and Records Management.

The most popular course according to BE student enrollment of 38,392 was also Typing I (30.60 percent). The other popular BE courses were General Business (11.50 percent), Bookkeeping I (9.41 percent), Typing II (5.00 percent), Shorthand I (5.00 percent), Introduction to VOE I (3.76 percent), Business Arithmetic I (3.18 percent), and Clerical or Office Practice (3.12 percent). The percent of total BE course enrollment less than 4 percent were (in rank order): Business Arithmetic I, Clerical or Office Practice, Business Law I, Consumer Economics I, Business English I, Secretarial Practice, Bookkeeping II, Shorthand II, Business Machines, Salesmanship and Records Management.

The most popular course according to total school enrollment of 68,030 was Typing I (17.25 percent) followed by General Business

Table 6

TOTAL SCHOOL ENROLLMENT IN BUSINESS EDUCATION COURSES AS REPORTED BY 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS AND DISTRIBUTED BY INDIVIDUAL COURSES DURING THE 1976-77 SCHOOL YEAR

Course Title	Schools Offering Course		Student Enrollment	Percent of Total Business Enrollment[a]	Percent of Total School Enrollment[b]
	N	%			
Bookkeeping I	78	81.3	3,614	9.41	5.31
Bookkeeping II (second year)	10	10.4	146	0.38	0.21
Business Arithmetic I	28	29.2	1,220	3.18	1.79
Business English I	12	12.5	347	0.90	0.51
Business Law I	21	21.9	721	1.88	1.06
Business Machines	3	3.1	112	0.29	0.16
Clerical or Office Practice	21	21.9	1,193	3.12	1.75
Consumer Economics I[c]	6	6.3	548	1.43	0.81
Introduction to VOE[c]	21	21.9	1,442	3.76	2.12
General Business	61	63.5	4,411	11.50	6.48
Records Management[c]	1	1.0	27	0.07	0.04
Salesmanship[c]	3	3.1	100	0.26	0.15
Secretarial Practice	7	7.3	238	0.62	0.35
Shorthand I	68	70.8	1,911	5.00	2.81
Shorthand II (second year)	11	11.5	142	0.37	0.21
Typing I	95	99.0	11,732	30.60	17.25
Typing II (second year)	53	55.2	1,920	5.00	2.82

[a]The total enrollment in BE courses for 1976-77 was 38,392.

[b]The total school enrollment for 1976-77 was 68,030.

[c]Courses added to the curriculums between the 1962-63 and the 1976-77 school years.

(6.48 percent), Bookkeeping I (5.31 percent), Typing II (2.82 percent), Shorthand I (2.81 percent), Introduction to VOE I (2.12 percent), Clerical or Office Practice (1.75 percent), Business Arithmetic (1.79 percent), and Business Law (1.06 percent). The other popular courses were (in rank order): Consumer Economics (0.81 percent), Business English I (0.51 percent), Secretarial Practice (0.35 percent), Bookkeeping II (0.21 percent), Shorthand II (0.21 percent), Business Machines (0.16 percent), Salesmanship (0.15 percent), and Records Management (0.04 percent).

An analysis of the increase or decrease in the percent of total student enrollment in the 96 Tennessee Public High Schools offering the different BE courses between 1962-63 and 1976-77 is shown in Table 7. The highest percentage increase was 1.7 percent in the total number of schools offering General Business; 1.1 percent offering Business Arithmetic I; 0.7 percent offering clerical or Office Practice; 0.6 percent offering Business Law I; 0.3 percent offering Secretarial Practice; and 0.1 percent offering Business Machines. The highest percentage decrease was -2.6 percent in the total number of schools offering Shorthand I; -2.1 percent offering Typing II; and -0.9 percent offering Shorthand II. Bookkeeping II had no change in the percentage increase or decrease in student enrollment.

The courses showing an increase (General Business, 1.7 percent, and Business Arithmetic I, 1.1 percent) might be categorized into three areas; namely, basic business content courses not integrated into the content of specialized block programs; fundamental skill courses considered

Table 7

INCREASE OR DECREASE IN PERCENT OF TOTAL STUDENT ENROLLMENT IN 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS TAKING THE DIFFERENT BUSINESS EDUCATION COURSES BETWEEN 1962-63 AND 1976-77

Course Title	Percent of Total Enrollment 1962-63	Percent of Total Enrollment 1976-77	Increase or Decrease in Percent[a]
Bookkeeping I	5.7	5.3	-0.4
Bookkeeping II (second year)	0.2	0.2	0.0
Business Arithmetic I	0.7	1.8	1.1
Business English I	0.0	0.5	0.5
Business Law I	0.5	1.1	0.6
Business Machines	0.1	0.2	0.1
Clerical or Office Practice	1.1	1.8	0.7
Consumer Economics I[b]	0.0	0.9	0.9
Consumer Education[c]	0.1	0.0	-0.1
Introduction to VOE I[b]	0.0	2.1	2.1
General Business	4.8	6.5	1.7
Records Management[b]	0.0	0.0	0.0
Salesmanship[b]	0.0	0.2	0.2
Secretarial Practice	0.1	0.4	0.3
Shorthand I	5.4	2.8	-2.6
Shorthand II (second year)	1.1	0.2	-0.9
Typing I	18.0	17.3	-0.7
Typing II (second year)	4.9	2.8	-2.1

[a]The total enrollment in 1962-63 was 62,065; 1976-77, 68,030.

[b]Courses added to the curriculums between the 1962-63 and 1976-77 school years.

[c]Courses dropped from the curriculums between 1962-63 and the 1976-77 school years.

prerequisites to specialized block programs; or specialized skill courses designed as electives for the nonbusiness student. The courses showing a decrease in total student enrollment between 1962-63 and 1976-77 are the skill courses (Shorthand I (-2.6 percent; Typing II, -2.1 percent; and Shorthand II, -0.9 percent) which seem to have been absorbed by the specialized block programs receiving partial federal and state reimbursement.

A comparison of the changes between 1962-63 and 1976-77 in the increase or decrease in percent of student enrollment in the different courses, Table 7, and the increase or decrease in the number of 96 schools offering the different courses, Figure 2, page 47, reveals a number of findings. The data show that the number of schools offering General Business, and Business Arithmetic I increased during the fifteen-year period; likewise the percentage of total student enrollment taking these courses increased. The three courses showing the greatest decrease in the number of schools offering the courses were Shorthand II, Shorthand I, and Typing II while the three courses showing the greatest percentage decrease in the number of students taking the courses were Shorthand I, Typing II, and Shorthand II.

Vocational Office Education Programs in 1976-77

One of the major changes in the business curriculums since the passage of the Vocational Education Act of 1963 was the introduction of reimbursed block-time programs. The five block-time programs (known as VOE programs in order to distinguish them from the nonreimbursed BE courses) are listed on page 45. The 1976-77 preliminary reports

from the State Department of Education listed only 4 different VOE programs (page 44) while the Rules and Regulations publication listed others (page 45).

Of the total 96 schools represented in the data for this chapter, 29 offered 40 VOE programs. The following were the three different programs offered in the 29 schools:

Stenographic/Secretarial
Clerical/Machine Operator
Data Processing

VOE Stenography, Bookkeeping/Accounting, and Supervisory/Management programs were not offered in the 29 schools offering VOE programs.

As shown in Table 8, of the 96 schools represented in 1976-77, 29, or 30.2 percent, had VOE programs. Of the 49 small schools, 8, or 16.3 percent, had VOE programs. Of the 43 medium schools, 19, or 44.2 percent, had VOE programs. Of the 4 large schools, 2, or 50.0 percent, had VOE programs.

Table 8

NUMBER AND PERCENT OF 96 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS OFFERING VOCATIONAL OFFICE EDUCATION PROGRAMS DURING THE 1976-77 SCHOOL YEAR

Classification of Schools	Number of Schools	Number with VOE Programs	Percent with VOE Programs
Small	49	8	16.3
Medium	43	19	44.2
Large	4	2	50.0
Total Schools	96	29	30.2

As shown in Table 9, the 29 schools with VOE programs, 18, or 62.1 percent, offered one program, and 11, or 37.9 percent, offered 2 programs. Of the 29 schools offering VOE programs, 8 were small, 19 were medium, and 2 were large high schools. Of the 8 small schools, 4, or 50.0 percent, offered one program and 4, or 50.0 percent, offered two programs. Of the 19 medium schools, 14, or 73.7 percent, offered one program, and 5, or 26.3 percent, offered 2 programs. Of the 2 large schools none offered one program, and 2, or 100.0 percent, offered two programs.

Table 9

NUMBER OF VOCATIONAL OFFICE EDUCATION PROGRAMS OFFERED IN 29 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS DURING THE 1976-77 SCHOOL YEAR

Number of Programs Offered	Classification of High Schools							
	Small		Medium		Large		Total	
	N	%	N	%	N	%	N	%
1	4	50.0	14	73.7	0	0.0	18	62.1
2	4	50.0	5	26.3	2	100.0	11	37.9
Totals	8	100.0	19	100.0	2	100.0	29	100.0

The number and percent of the small, medium, and large high schools offering the different VOE programs in 1976-77 are recorded in Table 10. The most popular program was Clerical/Machine Operator, offered by 28, or 96.6 percent, of the 29 schools with VOE programs. The other programs offered in the curriculum of the 29 schools were Stenographic/Secretarial

Table 10

NUMBER AND PERCENT OF 29 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS OFFERING THE DIFFERENT VOCATIONAL OFFICE EDUCATION PROGRAMS DURING THE 1976-77 SCHOOL YEAR

Program Title	Classification of High Schools							
	Small		Medium		Large		Total	
	N=8	%	N=19	%	N=2	%	N=29	%
Stenographic/Secretarial[a]	4	50.0	5	26.3	2	100.0	11	37.9
Clerical/Machine Operator	8	100.0	18	94.7	2	100.0	28	96.6
Data Processing	—	0.0	1	5.3	—	0.0	1	3.4

[a]Programs added to the curriculums between the 1962-63 and 1976-77 school years.

(37.9 percent) and Data Processing (3.4 percent). Of the 8 small schools, the most popular program was Clerical/Machine Operator offered by 8, or 100 percent, of the schools; and Stenographic/Secretarial offered by 4, or 50.0 percent. Of the 19 medium schools, the most popular program was Clerical/Machine Operator offered by 18, or 94.7 percent, of the schools. The other programs offered by the medium schools were Stenographic/Secretarial (26.3 percent) and Data Processing (5.3 percent). Of the 2 large schools, both the Stenographic/Secretarial and Clerical Machine Operator programs were popular with 100.0 percent of the schools offering these programs.

Vocational Office Education Program Enrollments

As shown in Table 11 for the 1976-77 school year, the most popular program was Clerical/Machine Operator, offered by 96.6 percent of the

Table 11

TOTAL SCHOOL ENROLLMENT IN VOCATIONAL OFFICE EDUCATION PROGRAMS AS REPORTED BY 29 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS AND DISTRIBUTED BY INDIVIDUAL PROGRAMS DURING THE 1976-77 SCHOOL YEAR

Program Title	Schools Offering Program		Adjusted Student Enrollment[a]	Percent of Total Business Enrollment[b]	Percent of Total School Enrollment[c]
	N	%			
Stenographic/Secretarial	11	37.9	1,659	4.32	2.44
Clerical/Machine Operator	28	96.6	4,377	11.4	6.43
Data Processing	1	3.4	54	0.14	0.08

[a]The student enrollment in programs was multiplied by three to compensate for block programs usually averaging three traditional class periods.

[b]The combined total of business enrollment in BE courses and VOE programs was 38,392.

[c]The total school enrollment for 1976-77 was 68,030.

total 29 schools. Other programs offered in the curriculum of the 29 schools were Stenographic/Secretarial (39.9 percent) and Data Processing (3.4 percent).

The most popular program according to VOE student enrollment of 38,392 was also Clerical/Machine Operator (11.4 percent). The other popular programs were Stenographic/Secretarial (4.32 percent) and Data Processing (0.14 percent).

The most popular according to total student enrollment of 68,030 was Clerical/Machine Operator (6.43 percent), followed by Stenographic/Secretarial (2.44 percent), and Data Processing (0.08 percent).

As shown in Tables 9 and 10, a one-program offering was most popular in the 29 schools represented with VOE programs and the Clerical Machine Operator program was the most popular VOE program offered during the 1976-77 school year. Thus it may be assumed that general business classes are larger in student enrollment per class than typing, bookkeeping, or shorthand classes. The popularity of the Clerical/Machine Operator program and the Stenographic/Secretarial program was probably responsible for the big drop in student enrollment from Shorthand I to Shorthand II and from Typing I to Typing II.

VI. SUMMARY

In this chapter data concerning the BE course offerings and VOE programs and student enrollments in 96 public senior high schools were compared and analyzed for the 1962-63 and 1976-77 school years. Student

enrollments in the various courses and programs, along with the percent of total business enrollment and total school population enrolled in business courses and programs, were also reported in an attempt to analyze the changes in the business curriculum since the passage of the Vocational Education Act of 1963. The sources of data used for this chapter were publications and reports of the Tennessee State Department of Education.

The following is a summary of the data presented in this chapter.

In 1962-63 and 1976-77, there was a shift from the 9-12 grade category to the 10-12 grade category as the most common grade category for the total 96 schools. The least popular category for all three classifications of schools was 8-12. The largest number of small schools remained in the 9-12 grade category in 1976-77; however, there was a slight shift to the 10-12 grade category. In the medium schools, there was a shift from 9-12 to 10-12 grade category from 1962-63 and 1976-77 school year. The large schools remained the same (9-12 and 10-12 each with 50 percent) except for one large school experiencing declining enrollment from 1962-63 to 1976-77. A slight change in the number of schools for each grade classification from 1962-63 to 1976-77 was evident. For example, in 1962-63, of the 96 schools, 41 were classified as small as contrasted with 49 in 1976-77; in 1962-63, 50, small, with 43 in 1976-77; and in 1962-63, 5, large, with 4 in 1976-77. The most dominant grade arrangements appear to be 9-12 and 10-12 for both 1962-63 and 1976-77 school years.

For the 1976-77 school year, there was a decrease in the number of 96 schools offering 1-4 courses and an increase in the number of

schools offering 5 or more courses. Between 1962-63 and 1976-77, schools tended to offer more business courses. For example, from 1962-63 to 1976-77, there was a decrease in the number of schools offering 1-4 courses as evidenced by 51.1 percent (49) in 1962-63 and 27.1 percent (26) in 1976-77. From 1962-63 to 1976-77 there was an increase in the number of 96 schools offering 5 or more courses as evidenced by 48.9 percent (47) in 1962-63 and 72.9 percent (70) in 1976-77.

From 1962-63 to 1976-77 school year the mode increased from 4 to 5. There was a tendency towards offering more BE courses. There was also a decrease in the number of schools offering 1-4 courses and an increase in the number of schools offering 5 or more BE courses.

Of the total 96 schools represented in this study, there were 249 BE teachers and 41 VOE teachers.

None of the schools represented in this study offered VOE Stenography I or Principles of Business. In 1962-63, none of the schools offered Salesmanship.

Of the 96 schools represented in this study, 96 offered BE courses and only 29 offered VOE programs.

Consumer Economics, Introduction to VOE, Records Management (a course taught in one school but not listed in the 1976-77 Rules, Regulations, and Minimum Standards as a course in the curriculum) and Salesmanship (a course removed from the 1976-77 Rules, Regulations, and Minimum Standards) were BE courses added to the curriculums of the total 96 schools between the 1962-63 and 1976-77 school years. Consumer

Education was dropped from the BE curriculums between the 1962-63 and the 1976-77 school years. VOE programs added to the curriculums of 29 of the 96 schools represented in this study were: Stenographic/Secretarial, Clerical/Machine Operator, Data Processing. Bookkeeping/Accounting nor Supervisory/Management programs were offered in the 29 schools offering VOE programs.

From 1962-63 to 1976-77, total adjusted school enrollment increased 9.6 percent. From 1962-63 to 1976-77, total adjusted business enrollment increased 47.3 percent.

In 1962-63, 42 percent of the total school enrollment was in business courses; in 1976-77, 56 percent. From 1962-63 to 1976-77 there was a 14 percent increase in business enrollment. In 1976-77, of the total business enrollment (38,392), 16 percent of the "students" were enrolled in VOE programs.

The number of schools offering General Business and Business Arithmetic increased during the 15-year period; likewise, the percentage of total student enrollment taking these courses increased. The three courses showing the greatest decrease in the number of schools offering the courses were Shorthand II, Shorthand I, and Typing II while the three courses showing the greatest percentage decrease in the number of students taking the courses were Shorthand I, Typing II, and Shorthand II.

The most popular courses in the 96 schools represented during the 1962-63 and 1976-77 school years were (in rank order):

Typing I
Bookkeeping I
Shorthand I
Typing II
General Business

The courses showing an increase in popularity in the 96 schools represented between the 1962-63 and 1976-77 school years were (in rank order):

Bookkeeping I
General Business
Business Arithmetic I
Business Law I
Business Machines
Business English I
Bookkeeping II
Secretarial Practice I

The courses showing a decrease in popularity in the 96 schools represented during the 1962-63 and 1976-77 school years were (in rank order):

Typing I
Shorthand I
Typing II
Shorthand II
Clerical or Office Practice

In 1962-63, the three most popular BE courses in the total 96 schools were (in rank order):

Typing I
Shorthand I
Typing II

In 1976-77, the three most popular BE courses in the total 96 schools were (in rank order):

Typing I
Bookkeeping I
Shorthand I

In 1976-77, the most popular VOE program offered in 29 of the 96 schools represented with VOE programs was Clerical/Machine Operator.

In the next chapter, Chapter IV, the academic and professional training of Tennessee BE and VOE teachers is reported. The total number of years of teaching experience and related business experience are also included in this chapter.

CHAPTER IV

ACADEMIC AND PROFESSIONAL TRAINING OF TENNESSEE BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS

I. INTRODUCTION

The purpose of this chapter is to present the data on the academic background, initial certification, and teaching experience of 260 BE and VOE teachers representing 183 public senior high schools in 1976-77.

The method used to collect the data for this chapter was explained in detail in Chapter II, page 16. A mailed questionnaire was used to obtain the academic background, initial certification, and total years of teaching experience of the 154 BE and 106 VOE teachers. Not all teachers responded to all items in the questionnaire.

Until 1976, the regulations of BE teachers included the following as stated in the regulations for certification of teachers, September 1970:[1]

> The applicant shall offer a minimum of 27 quarter hours, including a core requirement of 18 quarter hours in Accounting, Economics and two of the following: Business Law, Introduction to Business, Business Mathematics, and Business Communication.
>
> Applicants meeting the above requirements may secure single subject endorsements by completion of the hours indicated including hours completed in the core:

---

[1] Regulations for Certification of Teachers, Tennessee State Board of Education, September 1970, p. 15.

General Business	9	quarter hours including Introduction to Business or Business Principles, Business Law, and Business Mathematics
Bookkeeping	15	quarter hours
Typewriting	9	quarter hours including 3 hours of advanced typewriting
Shorthand	9	quarter hours including 3 hours of advanced shorthand
Business Law	9	quarter hours
Economics	18	quarter hours including principles and related subjects in that field
Salesmanship	9	quarter hours selected from Salesmanship, Marketing, Merchandising, Advertising and Retailing
Secretarial Practice	3	quarter hours of Office Practice plus certification in shorthand and typewriting
Business Machines	3	quarter hours
Business English	3	quarter hours
Business Arithmetic	9	quarter hours (6 in Mathematics and 3 in Business Mathematics or 9 in Business Mathematics)
Office or Clerical Practice	3	quarter hours in Office, Secretarial or Clerical Practice
Consumer Education	3	quarter hours in Consumer Economics or Consumer Education

In 1976, new regulations were issued. The only change in certification for BE teachers was dropping the single endorsement for Economics and omitting "Secretarial" from the Office or Clerical Practice endorsement. The certification for Economics is now a responsibility for the Social Science Department rather than Business.

After checking library sources and checking with personnel of the State Department, the first printed regulations for VOE certification appears to be the one listed in the Rules, Regulations, and Minimum Standards of the Tennessee State Board for Vocational Education in 1972. In the state of Tennessee, the qualifications for VOE teachers were stated thus:

> . . . Bachelor's degree from an accredited four-year college or university, a valid Tennessee Teachers Professional Certificate

with endorsement in five business education areas and 2,000 hours of office work experience.[2]

During the first five years of employment in a VOE program in the state of Tennessee, initial VOE certification in 1972 was based upon a teacher completing three state approved courses from those listed below:

1. Organization and Administration of Vocational Office Education
2. Methods and Materials of Vocational Office Education
3. Vocational Guidance
4. Coordinators of Cooperative Occupation programs must complete a course in "Cooperative Education" in addition to the three required courses.[3]

In the 1976-77 Rules, Regulations, and Minimum Standards, Measurement and Evaluation in Vocational Office Education was added as a required course for VOE certification and item 4 above was dropped.[4]

In 1975, Robert Hollingshead made the following statement:

> The State Board of Education passed a proposal on Friday, November 8, 1974, bringing all business education under the administrative umbrella of vocational education. This means that the same administrative and technical personnel will work with all business and office education programs.
>
> . . . This proposal in no way states that vocational education intends to take over business education by requiring business education teachers to become certified as business education teachers or by requiring an amount of work experience. Business education teachers will continue meeting the same certification requirements as they have in the past. However, they will now have the following services available:

---

[2]Rules, Regulations, and Minimum Standards, 1972, Tennessee State Board of Education, p. 42.

[3]Ibid.

[4]Rules, Regulations, and Minimum Standards, 1976-77, op. cit., p. 54. The 1978-79 edition requirements remained the same.

1. Field services and technical assistance in improvement of classroom instruction.
2. Assistance in the improvement and coordination of teaching materials and curriculum.
3. Provisions of appropriate curriculum materials as funds are available.
4. Provisions of in-service training and related activities.
5. Assistance in the operation and functioning of related student club activities.
6. Availability of teacher education services as deemed appropriate by the Division of Vocational-Technical Education designed to keep business and office education teachers abreast of new trends and issues.[5]

In comparing 1972 and 1976, the following changes in VOE certification appear to have been made:

1. In 1970, vocational office education teachers could select three of the four courses listed. In 1976, teachers were required to have four courses, including Measurement and Evaluation in Vocational Office Education.

2. One school year teaching experience at an accredited institution after completion of the Bachelor's degree with some teaching responsibility in business education.[6]

3. To be eligible for each endorsement in Vocational Office Education, the applicant must meet the minimum requirements of the State Department of Education for the business endorsement under each vocational office education area as follows:[7]

Clerical/Machine Operator (56)	Steno/Secretarial (57)
1. Typewriting	1. Typewriting
2. Business Machines	2. Shorthand
3. Office Practice	3. Business Machines
4. Two other appropriate areas in Business Education	4. Office Practice
	5. One other appropriate area in Business Education

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[5]Hollingshead, Robert, "Business Education Placed under Vocational Umbrella," The Invoice, Tennessee Business Education Association Bulletin, Vol. 1, No. 2, Spring 1975.

[6]Rules, Regulations, and Minimum Standards, 1976,77, loc. cit.

[7]Rules, Regulations, and Minimum Standards, 1976-77, op. cit., p. 55.

Data Processing (55)	Bookkeeping/Accounting (54)
1. Data Processing	1. Bookkeeping
2. Business Machines	2. Business Machines
3. Bookkeeping	3. General Business
4. Two other appropriate areas in Business Education	4. Two other appropriate areas in Business Education

II. ACADEMIC BACKGROUND OF BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

To show the highest college degree earned by the 260 BE and VOE teachers in 183 Tennessee public senior high schools in 1976-77, Table 12 was constructed.

Table 12

HIGHEST DEGREE EARNED BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 183 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

	Classification of Teachers							
	Small		Medium		Large		Total	
Type of Degree	N	%	N	%	N	%	N	%
Bachelors	54	61.4	83	53.5	3	17.6	140	53.8
Masters	24	27.3	49	31.6	7	41.2	80	30.8
Educational specialist or one graduate course beyond Masters	8	9.1	18	11.6	6	35.3	32	12.3
Doctorate	0	—	1	0.6	0	—	1	0.4
Other	2	2.3	4	2.6	1	5.9	7	2.7
Totals	88	100.0	155	100.0	17	100.0	260	100.0

Of the 260 BE and VOE teachers surveyed, 140, or 53.8 percent, had earned a Bachelor's degree; and 80, or 30.8 percent, had earned a Masters; and 15.4 percent, had above a Masters.

Of the 88 teachers in small schools, 54, or 61.4 percent, had earned Bachelors; 24, or 27.3 percent, had earned Masters; 8, or 9.1 percent, had earned an Educational Specialist degree or had completed one graduate course beyond the Masters; none had earned a Doctorate; and 2, or 2.3 percent, indicated Other.

Of the 155 teachers in medium schools, 83, or 53.5 percent, had earned a Bachelors; 49, or 31.6 percent, had earned a Masters; 18, or 11.6 percent, had earned Educational Specialist or had completed one graduate course beyond the Masters; 1, or 0.6 percent, had earned a doctorate; and 4, or 2.6 percent, indicated Other.

Of the 17 teachers in large schools, 3, or 17.6 percent, had earned a Bachelors; 7, or 41.2 percent, had earned a Masters; 6, or 35.3 percent, had earned an Educational Specialist degree or had completed one graduate course beyond the Masters; and 1, or 5.9 percent, indicated Other.

The highest percentage (41.2 percent) of teachers with Master's degrees was found in the large schools. The highest percentage (61.4 percent and 53.5 percent) of teachers with Bachelor's degrees was found in small and medium schools. Approximately one-half (43.5 percent) of the total 260 teachers had college degrees beyond the bachelors.

To contrast the highest college degree earned by 106 VOE teachers and 154 BE teachers in 183 public senior high schools in 1976-77,

Table 13 was constructed. Of the 154 BE teachers surveyed, 93, or 60.4 percent, had earned a Bachelor's degree; 42, or 27.3 percent, had earned a Masters; and 7, or 11.0 percent, had completed work beyond the Master's degree; and 2, or 1.3 percent, had Other. Of the 106 VOE teachers, 47, or 44.3 percent, had earned a Bachelor's degree; 38, or 35.8 percent had earned a Master's degree; 16, or 15.1 percent, had completed work beyond the Masters; and 5, or 4.7 percent, indicated Other.

Table 13

HIGHEST DEGREE EARNED BY 260 TENNESSEE BUSINESS TEACHERS BY TYPE OF PROGRAM

Type of Degree	Vocational Office Education		Business Education	
	N	%	N	%
Bachelors	47	44.3	93	60.4
Masters	38	35.8	42	27.3
Educational Specialist or one graduate course beyond Masters	16	15.1	16	10.4
Doctorate	—	0.0	1	0.6
Other	5	4.7	2	1.3
Totals	106	100.0	154	100.0

Less than half (44.3 percent) the VOE teachers surveyed had earned no more than a Bachelor's degree (a state requirement), while 60.4 percent of the BE teachers had earned no more than a Bachelor's degree. A larger percentage of the VOE teachers surveyed (35.8 percent) had

earned a Master's degree than had the BE teachers (27.3 percent). A larger percentage of the VOE teachers (19.8 percent) had completed work beyond the Masters than had the BE teachers (12.3 percent). VOE teachers were slightly more "educated" as indicated by the highest degree held. Up until 1976, the State required a Bachelor's degree plus required three graduate courses for VOE certification, yet 44.3 percent of the VOE teachers surveyed did not meet that requirement. (Until 1976, initial certification for VOE teachers had to be completed within a five-year period.)

In the state of Tennessee, a total of 2,000 hours of actual office work experience is required for certification in VOE. A total of three summers of office work (2,000 hours) is considered equivalent to one full year of office work experience. The total number of years of work experience for the BE and VOE teachers is given in Table 14. Of the 106 VOE teachers surveyed, 5, or 4.7 percent, had no office work experience; 43, or 40.6 percent, had 1-2 years; 28, or 26.4 percent, had 3-4 years; 13, or 12.3 percent, had 5-6 years; and 17, or 16.0 percent, had 7 or more years.

Of the 154 BE teachers 21, or 13.6 percent, had no office work experience; 60, or 39.0 percent, had 1-2 years; 27, or 17.5 percent, had 3-4 years; 10, or 6.5 percent, had 5-6 years; 35, or 22.7 percent, had 7 or more years; and 1, or 0.6 percent, did not respond to the question.

A comparison of the number of years of office work experience by the 106 VOE and 154 BE teachers surveyed showed that 95.3 percent of

Table 14

NUMBER AND PERCENT OF 260 TENNESSEE BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS WHO HAD BUSINESS WORK EXPERIENCE IN OFFICE AND/OR RELATED OCCUPATIONS BY TYPE OF PROGRAM

Years of Work Experience	Vocational Office Education		Business Education	
	N	%	N	%
None	5	4.7	21	13.6
1-2	43	40.6	60	39.0
3-4	28	26.4	27	17.5
5-6	13	12.3	10	6.5
7 or more	17	16.0	35	22.7
No data	—	—	1	0.6
Totals	106	100.0	154	100.0

the VOE teachers and 85.7 percent of the BE teachers had one or more years of office work experience. Five, or 4.7 percent of the VOE teachers did not meet state requirements for VOE certification.

Median years of work experience for both VOE and BE teachers were 1 to 2 years. Even though BE teachers were not required to have work experience, 85.7 percent do have work experience—thus providing a supply of vocational certifiable teachers.

III. INITIAL CERTIFICATION

Data concerning the number of VOE teachers certified to teach VOE are presented below. Two of the total 106 VOE teachers and 4 of the total 154 BE teachers did not respond to the question; therefore, the following information is based on the teachers responding.

Of the total 104 VOE teachers responding, 79, or 76.0 percent, indicated they had met VOE certification requirements; 25, or 24.0 percent, indicated they had not.

Of the total 150 business teachers responding, 34, or 22.7 percent, indicated they had met VOE certification requirements; 116, or 77.3 percent, indicated they had not.

Of the total 104 VOE teachers, 24.0 percent, still had not met VOE certification requirements; however, there was an available supply of BE teachers (22.7 percent) who had already met VOE certification requirements.

Data concerning the number of teachers completing course requirements for certification is shown in Table 15. Of the 106 VOE teachers responding, 47, or 44.3 percent, had completed Tests and Measurement; 89, or 84.0 percent, had completed Methods and Materials of Vocational Office Education; 86, or 81.1 percent, had completed Organization and Supervision of Vocational Office Education; and 77, or 72.6 percent, had completed Guidance.

Of the 154 BE teachers responding to the question concerning course completion requirements, 77, or 50.0 percent, had completed Tests and Measurement; 45, or 29.2 percent, had completed Methods and Materials of Vocational Office Education; 42, or 29.2 percent, had completed Organization and Supervision of Vocational Office Education; and 55, or 35.7 percent, had completed Guidance.

Of the total 260 VOE and BE teachers, 40, or 15.4 percent, had had all four courses—VOE, 70.0 percent; BE, 30.0 percent.

Table 15

NUMBER AND PERCENT OF 260 TENNESSEE BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS COMPLETING VOCATIONAL OFFICE EDUCATION COURSE REQUIREMENTS FOR CERTIFICATION

Courses	Vocational Office Education		Business Education	
	N	%	N	%
Tests and Measurement	47	44.3	77	50.0
Methods and Materials of Vocational Office Education	89	84.0	45	29.2
Organization and Supervision of Vocational Office Education	86	81.1	42	27.2
Guidance	77	72.6	55	35.7

More of the BE teachers (50.0 percent) had had Tests and Measurement than VOE teachers (44.3 percent). Of the four special courses required for certification, 72.6-84.0 percent of the VOE teachers had had the courses in contrast to 27.2-35.7 percent of the BE teachers, which would be a normal finding. Of the total 106 VOE teachers, 55.7 percent still needed Tests and Measurement. There were still VOE teachers in the State who needed additional courses for VOE certification.

IV. TOTAL YEARS OF TEACHING EXPERIENCE OF BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

To show the number of years of teaching experience of the 154 BE and 106 VOE teachers in 1976-77 in 183 public senior high schools in Tennessee, Table 16 was constructed. Of the 106 VOE teachers surveyed, 4, or 3.8 percent, had no teaching experience; 9, or 8.5 percent, had

Table 16

NUMBER OF YEARS OF TEACHING EXPERIENCE OF BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 183 SCHOOLS IN 1976-77 BY TYPE OF PROGRAM

Years of Teaching Experience	Vocational Office Education		Business Education	
	N	%	N	%
None	4	3.8	5	3.2
1-3	9	8.5	12	7.8
4-6	14	13.2	27	17.5
7 or more	79	74.5	110	71.4
Totals	106	100.0	154	100.0

1-3 years; 14, or 13.2 percent, had 4-6 years; and 79, or 74.5 percent, had 7 or more years.

Of the 154 BE teachers surveyed, 5, or 3.2 percent, had no teaching experience; 12, or 7.8 percent, had 1-3 years; 27, or 17.5 percent, had 4-6 years; and 110, or 71.4 percent, had 7 or more years.

The number of years of teaching experience of both VOE and BE teachers were similar. Over 70 percent of both the VOE (74.5 percent) and the BE teachers (71.4 percent) had 7 or more years of teaching experience.

As shown in Table 17, of the 106 VOE teachers surveyed, 10, or 9.4 percent, had no VOE teaching experience; 20, or 18.9 percent, had 1-2 years; 23, or 21.7 percent, had 3-4 years; 21, or 19.8 percent, had 5-6 years; 17, or 16.0 percent, had 7-8 years; 8, or 7.5 percent, had 9-10 years; and 7, or 6.6 percent, had 11-12 years.

Table 17

TOTAL NUMBER OF YEARS OF VOCATIONAL OFFICE EDUCATION TEACHING EXPERIENCE OF VOCATIONAL OFFICE EDUCATION TEACHERS IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

Years of Teaching Experience	Vocational Office Education	
	N	%
None	10	9.4
1-2	20	18.9
3-4	23	21.7
5-6	21	19.8
7-8	17	16.0
9-10	8	7.5
11-12	7	6.6
13 or more	—	0.0
No data	—	0.0

The mode for the number of years of teaching VOE as indicated by 106 VOE teachers was 3-4 years.

V. SUMMARY

In this chapter data concerning the academic background, initial certification, and teaching experience of 260 BE and VOE teachers in 183 public senior high schools in 1976-77 were presented. The data included the highest degree earned by each teacher, and the total number of years of teaching experience of each teacher. The vocational certification and the work experience of the BE and VOE teachers were also presented in an attempt to analyze the importance of work experience as promoted by the Vocational Education Acts. The method utilized to collect the data for this chapter was a mailed questionnaire to 154 BE

and 106 VOE teachers representing 183 Tennessee public senior high schools. Not all teachers responded to all items in the questionnaire.

The findings of this chapter are presented below.

In 1976, the only change in certification for BE teachers was dropping the single endorsement for Economics and omitting the word Secretarial from the Office or Clerical Practice endorsement.

Between 1972 and 1976 VOE teachers had to meet BE teacher requirements for certification plus have (1) 2,000 hours of office work experience, (2) complete 3 (1972) or 4 (1976) required courses for VOE certification, and (3) have one year teaching experience (1976) at an accredited institution in BE.

The highest percentage (41.2 percent) of teachers with Master's degrees was found in the large schools. The highest percentage (61.4 percent and 53.5 percent) of teachers with Bachelors' degrees was found in small and medium schools. Approximately one half (43.5 percent) of the total 260 teachers had college degrees beyond the Bachelors.

Less than half (44.3 percent) the VOE teachers surveyed had earned no more than a Bachelor's degree (a state requirement), while 60.4 percent of the BE teachers had earned no more than a Bachelor's degree. A larger percentage of the VOE teachers surveyed (35.8 percent) had earned a Master's degree than had the BE teachers (27.3 percent). A larger percentage of the VOE teachers (19.8 percent) had completed work beyond the Masters than had the BE teachers (12.3 percent). VOE teachers were slightly more "educated" as indicated by the highest degree held. Up until 1976, the State required a Bachelor's degree

plus required three graduate courses for VOE certification, yet 44.3 percent of the VOE teachers surveyed did not meet that requirement. (Until 1976, initial certification for VOE teachers had to be completed within a five-year period.)

A comparison of the number of years of office work experience by the 106 VOE and 154 BE teachers surveyed showed that 95.3 percent of the VOE teachers and 85.7 percent of the BE teachers had one or more years of office work experience. Five, or 4.7 percent, of the VOE teachers did not meet State requirements for VOE certification.

Median years of work experience for both VOE and BE teachers were 1 to 2 years. Even though BE teachers were not required to have work experience, 85.7 percent do have work experience—thus providing a supply of vocational certifiable teachers.

More of the BE teachers (50.0 percent) had had Tests and Measurement than VOE teachers (44.3 percent). Of the four special courses required for certification, 72.6-84.0 percent of the VOE teachers had had the courses in contrast to 27.3-35.7 percent of the BE teachers, which would be a normal finding. Of the total 106 VOE teachers, 55.7 percent still needed Tests and Measurement. There were still VOE teachers in the State who needed additional courses for VOE certification.

Of the total 260 VOE and BE teachers, 40, or 15.4 percent, had had all four courses—VOE, 70.0 percent; BE, 30.0 percent.

The number of years of teaching experience of both VOE and BE teachers were similar. Over 70 percent of both the VOE (74.5 percent) and the BE teachers (71.4 percent) had 7 or more years of teaching experience.

The mode for the number of years of teaching VOE as indicated by 106 VOE teachers was 3 to 4 years.

In the next chapter, Chapter V, data concerning classroom facilities and equipment, business and office machines, and instructional materials and media used by BE and VOE teachers in 183 public senior high schools are analyzed and reported.

CHAPTER V

FACILITIES, EQUIPMENT, AND INSTRUCTIONAL MEDIA FOR BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS

I. INTRODUCTION

The purpose of this chapter is to describe and compare the kinds of classroom facilities, business and office machines, and instructional materials and media available in 183 Tennessee public senior high schools by VOE programs and BE programs. The opinions of the BE and VOE teachers regarding the adequacy of the facilities, equipment, and instructional media available in their schools are also included.

This chapter is divided into three major sections. In the first section, data concerning the classroom facilities and equipment are presented and analyzed; the kinds and adequacy of the classroom are included in the section on facilities. In the second section, the types of business and office machines available for use in VOE classrooms, and the opinions of the teachers regarding the adequacy of the machines are reported. In the third section, the instructional materials and media available for use by the teachers are listed. The extent to which these materials and media are used by the

teachers, and the opinions of the teachers regarding the adequacy of the materials and media are also reported in the third section.

The procedures used to gather the data for this chapter were described in Chapter I, pages 11-12. A mailed questionnaire was received from 260 BE and VOE teachers. Of the total 260 teachers surveyed, 154 were BE teachers and 106 were VOE teachers from 183 Tennessee public senior high schools.

Of the 183 Tennessee public senior high schools included in this chapter, 73 were classified as small; 101 medium; and 9 large. Of the total 260 teachers surveyed, 88 were in small schools, 155 were in medium schools, and 17 were in large schools. Of the 88 teachers in small schools, 58 were BE teachers and 30 were VOE teachers. Of the 155 teachers in medium schools, 92 were BE teachers and 63 were VOE teachers. Of the 17 teachers in large schools, 4 were BE teachers and 13 were VOE teachers.

Of the 183 schools, 102 programs were nonreimbursed and 81 were reimbursed. From now on the nonreimbursed programs will be referred to as BE programs and the reimbursed programs as VOE programs. Of the total 73 small schools, 28 had VOE programs and 45 had BE programs. Of the 101 medium-sized schools, 47 had VOE programs and 54 had BE programs. Of the 9 large-sized schools, 6 had VOE programs and 3 had BE programs. Not all teachers responded to all items in the questionnaire. In instances where there was obvious duplication of facilities, figure adjustments were made for presentation purposes.

II. CLASSROOM FACILITIES AND EQUIPMENT

In an attempt to describe and compare the kinds of classroom facilities available to VOE and BE teachers in 183 Tennessee public senior high schools, data concerning the classrooms are presented in this section.

Of the total 260 BE and VOE teachers surveyed, 204 responded to the question concerning the number of classrooms equipped with collapsible walls to facilitate grouping. Of the 204 teachers responding, 87 were VOE and 117 were BE teachers. Of the 204 teachers responding, 19 VOE teachers did not respond to the question and 37 BE teachers did not respond to the question; therefore, the following information is based on the number responding.

Of the 87 VOE teachers responding, 16, or 18.4 percent, indicated they had collapsible walls to facilitate grouping. Of the 117 BE teachers responding, 24, or 20.5 percent, indicated they had collapsible walls to facilitate grouping. Of the 16 VOE teachers responding to the availability of collapsible walls, 3, or 18.8 percent, were classified as small schools; 11, or 68.8 percent, medium schools; and 2, or 12.5 percent, large schools. Of the 24 BE teachers responding to the availability of collapsible walls, 5, or 20.8 percent, were classified as small schools; 19, or 79.2 percent, medium schools; and none as large schools.

Both VOE and BE teachers responses were similar in that 18.4 percent of the VOE teachers and 20.5 percent of the BE teachers

indicated they had collapsible walls to facilitate grouping. Also, the percentage (68.8 percent) of VOE teachers in medium-sized schools who had collapsible walls was similar to the percentage (79.2 percent) of BE teachers in medium-sized schools who had collapsible walls to facilitate grouping.

Of the 201 teachers responding to the question on the availability of multi-channel equipment, 89 were classified as VOE and 112 as BE teachers. Of the 89 VOE teachers responding, 40, or 44.9 percent, indicated they did not use multi-channel equipment while 36, or 40.4 percent, indicated one classroom with multi-channel equipment; 9, or 10.1 percent, indicated 2 classrooms; and 4, or 4.5 percent, indicated 3 or more classrooms with multi-channel equipment; and 20, or 22.5 percent, gave no response.

Of the 112 BE teachers responding to the question on multi-channel equipment, 91, or 81.3 percent, indicated they did not use multi-channel equipment; 16, or 14.3 percent, indicated one classroom with multi-channel equipment; 3, or 2.4 percent, indicated two classrooms; 2, or 1.8 percent, indicated 3 or more classrooms; and 42, or 37.5 percent, did not respond to the question.

When comparing the classrooms of VOE teachers, it was found that a larger percentage (81.3 percent) of the BE teachers than VOE teachers (44.9 percent) did not have access to multi-channel equipment. A larger percentage (55.0 percent) of the VOE teachers had access to one or more classrooms equipped with multi-channel equipment than BE teachers (18.8 percent).

As shown in Table 18, of the total 106 VOE teachers surveyed, 27, or 25.5 percent, indicated Superior facilities; 37, or 35.0 percent, indicated Adequate facilities; 18, or 17.0 percent, indicated Somewhat Adequate facilities; 6, or 5.7 percent, indicated Inadequate facilities; and 18, or 17.0 percent, gave no response.

Table 18

ADEQUACY OF SPACE AND FIXTURES AS INDICATED BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

Adequacy of Facilities	Classification of Teachers			
	Vocational Office Education		Business Education	
	N=106	%	N=154	%
Superior	27	25.5	14	9.1
Adequate	37	35.0	37	24.0
Somewhat Adequate	18	17.0	39	25.3
Inadequate	6	5.7	26	16.9
No Response	18	17.0	38	24.7

Of the total 154 BE teachers surveyed, 14, or 9.1 percent, indicated Superior facilities, 37, or 24.0 percent, indicated Adequate facilities, 39, or 25.3 percent, indicated Somewhat Adequate facilities, 26, or 16.9 percent, indicated Inadequate facilities; and 38, or 24.7 percent, gave no response.

A larger percentage (60.5 percent) of the VOE teachers felt their facilities were adequate or superior than BE teachers (33.1 percent).

Conversely, a larger percentage (16.9 percent) of the BE teachers felt their facilities were inadequate than the VOE teachers (5.7 percent).

In the questionnaire, each teacher was asked to rate each type of equipment available to the teachers in the department as to either superior, adequate, somewhat adequate, or inadequate. Because teachers could not rate the adequacy of equipment not available to them, all individual cells of Table 29 (Appendix C) do not total 81 VOE teachers and 102 BE teachers.

Classroom equipment rated Adequate by over 50 percent of the 81 VOE teachers were (in rank order):

Chalkboards
Stop watches
Paper cutter
Filing cabinest
Interval timers (Typing)
Adjustable chairs (Typing)
Bulletin boards
Supply cabinets
Copy holders
Paper punch
Sink
Bookcases

Classroom equipment rated Adequate by over 50 percent of the 102 BE teachers were (in rank order):

Chalkboards
Bulletin boards
Stop watches
Interval timers (Typing)
Filing cabinets
Paper cutter
Supply cabinets
Bookcases

Classroom equipment rated Adequate by less than 50 percent of the 81 VOE teachers were (in rank order):

Office size desks (VOE or COE)
Tables (Bookkeeping)
Adjustable demonstration stands
Adjustable desks (Typing)
Model secretary's desks
(VOE, COE or Shorthand)
Tables (Shorthand)
Office size desks (Shorthand)

Classroom equipment rated Adequate by less than 50 percent of the 102 BE teachers were (in rank order):

Paper punch
Tables (Bookkeeping)
Copyholders
Adjustable demonstration stands
Adjustable desks (Typing)
Sink
Adjustable chairs (Typing)
Model secretary's desk
(VOE, COE or Shorthand)
Office size desks
Tables (Shorthand)
Office size desks (Shorthand)

When comparing the adequacy of classroom equipment available to the 81 VOE and 102 BE teachers, more adequate equipment was available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional four classroom items that they felt were adequate; namely,

Adjustable chairs (Typing)
Copy holders
Paper punch
Sink

As shown in Table 19, of the 106 VOE teachers surveyed, 27, or 25.5 percent, indicated Superior equipment; 40, or 37.7 percent, indicated Adequate equipment; 11, or 10.4 percent, indicated Somewhat Adequate equipment; 9, or 8.5 percent, indicated Inadequate equipment; and 19, or 17.9 percent, gave no response.

Table 19

ADEQUACY OF DEPARTMENTAL EQUIPMENT IN REGARD TO CLASSROOM INSTRUCTION AS INDICATED BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

Adequacy of Equipment	Vocational Office Education N=106	%	Business Education N=154	%
Superior	27	25.5	13	8.4
Adequate	40	37.7	44	28.6
Somewhat Adequate	11	10.4	41	26.6
Inadequate	9	8.5	17	10.0
No Response	19	17.9	39	25.3

Of the 154 BE teachers surveyed, 13, or 8.4 percent, indicated Superior equipment; 44, or 28.6 percent, indicated Adequate equipment; 41, or 26.6 percent, indicated Somewhat Adequate equipment; 17, or 11.0 percent, indicated Inadequate equipment; and 39, or 25.3 percent, gave no response.

A larger percentage (63.2 percent) of the VOE teachers felt their equipment was adequate or superior than BE teachers (37.0 percent). A larger percentage (11.0 percent) of the BE teachers than VOE teachers (8.5 percent) felt their equipment was inadequate.

As shown in Table 20, a total of 81 VOE teachers and 102 BE teachers responded to the questions concerning classroom equipment available for use by their department.

Of the 81 VOE teachers responding, the equipment listed by over 50 percent of the teachers were (in rank order):

Table 20

CLASSROOM EQUIPMENT BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

Classroom Equipment	Vocational Office Education N=81	%	Business Education N=102	%
Adjustable chairs (Typing)	60	74.1	44	43.1
Adjustable demonstration stands	39	48.1	50	49.0
Adjustable desks (Typing)	30	37.0	44	43.1
Bookcases	65	80.0	73	71.6
Bulletin boards	61	75.3	87	85.3
Chalkboards	70	86.4	89	87.3
Copyholders (Typing)	60	74.1	49	48.0
Filing cabinets	71	87.7	87	85.3
Interval timers (Typing)	71	87.7	85	83.3
Model secretary's desk (VOE, COE, or Shorthand)	46	56.8	35	34.3
Office-size desks (VOE or COE)	37	45.7	22	21.6
Office-size desks (Shorthand)	8	10.0	11	10.8
Paper cutter	72	88.9	72	70.6
Paper punch	57	70.4	52	51.0
Sink	46	56.8	40	39.2
Stopwatches	65	80.2	82	80.4
Supply cabinets	63	77.8	66	64.7
Tables (Bookkeeping)	40	49.4	52	51.0
Tables (Shorthand)	23	28.4	25	24.5

Paper cutter
Filing cabinets
Internal timers (Typing)
Chalkboards
Bookcases
Stopwatches
Supply cabinets
Bulletin boards
Adjustable chairs (Typing)
Copyholders (Typing)
Paper punch
Model secretary's desk
(VOE, COE, or Shorthand)
Sink

Of the 102 BE teachers responding, the equipment listed by over 50 percent of the teachers were (in rank order):

Chalkboards
Bulletin boards
Filing cabinets
Interval timers (Typing)
Stopwatches
Bookcases
Paper cutter
Supply cabinets
Paper punch
Tables (Bookkeeping)

Of the 81 VOE teachers responding, the equipment listed by less than 50 percent of the teachers were (in rank order):

Adjustable desks (Typing)
Tables (Shorthand)
Adjustable demonstration stands
Office size desks (VOE or COE)
Office size desks (Shorthand)

Of the 81 BE teachers responding, the equipment listed by less than 50 percent of the teachers were (in rank order):

Adjustable demonstration stands
Copyholders (Typing)
Adjustable chairs (Typing)
Adjustable desks (Typing)

Sink
Model secretary's desk
(VOE, COE, or Shorthand)
Tables (Shorthand)
Office size desks (VOE or COE)
Office size desks (Shorthand)

When comparing the classroom equipment available to the 81 VOE teachers and 102 BE teachers, more equipment was available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional four classroom items; namely,

Adjustable chairs (Typing)
Sink
Model secretary's desk
(VOE, COE, or Shorthand)
Copyholders (Typing)

The VOE teachers had access to all the items checked by the BE teachers except Tables (Bookkeeping).

III. BUSINESS AND OFFICE MACHINES

The types of business and office machines found in the 183 public senior high schools, and the opinions of teachers regarding the adequacy of these machines are reported in this section.

As shown in Table 21, of the 81 VOE teachers responding, the business machines available for use by over 50 percent of the teachers were (in rank order):

Fluid duplicators
Electric typewriters
Ten-key adding machines
Stencil duplicators
Dictation-transcription machines
Printing calculators
Copying machine
(Thermofax, Xerox, etc.)

Table 21

BUSINESS MACHINES AVAILABLE FOR INSTRUCTIONAL USE BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

Type of Business Machine	Vocational Office Education N=81	%	Business Education N=102	%
Addressograph	0	0.0	1	1.0
Bookkeeping (posting) machine	1	1.2	4	3.9
Cash register	8	9.9	9	8.8
Copying machine (Thermofax, Xerox, etc.)	63	77.8	48	47.1
Adding machines				
Full keyboard	26	32.1	26	25.5
Ten-key	74	91.4	69	67.6
Calculators				
Electronic	63	77.8	44	43.1
Key-driven	5	6.2	8	7.8
Printing	66	81.5	41	40.2
Rotary	16	19.8	16	15.7
Dictation-transcription machines	70	86.4	47	46.1
Duplicators				
Fluid	75	92.6	69	67.6
Offset	20	24.7	13	12.7
Stencil	72	88.9	58	56.9
Mimeoscope	62	76.5	38	37.3
Stenograph machines	8	9.9	6	5.9
Typewriters:				
Electric	75	92.6	87	85.3
Manual	27	33.3	71	69.6
Long-carriage	49	60.5	50	49.0
Variable or proportional spacing	38	46.9	47	46.1

Table 21 (continued)

Type of Business Machine	Vocational Office Education N=81	%	Business Education N=102	%
Data processing equipment				
Accounting machines	2	2.5	—	0.0
Collators	21	25.9	1	1.0
Computers	3	3.7	1	1.0
Keypunch machines	15	18.5	8	7.8
Interpreters	2	2.5	2	2.0
Reproducers	2	2.5	2	2.0
Sorters	4	4.9	3	2.9
Verifiers	4	4.9	3	2.9

Electronic calculators
Mimeoscope
Long-carriage typewriter

Of the 102 BE teachers responding, the business machines available for use by more than 50 percent of the teachers were (in rank order):

Electric typewriters
Manual typewriters
Ten-key adding machines
Fluid duplicators
Stencil
Variable or proportional spacing typewriters
Electronic calculators

Of the 81 VOE teachers responding, the business machines available for use by less than 50 percent of the teachers were (in rank order):

Variable or proportional spacing typewriters
Manual typewriters
Full keyboard adding machines
Collators
Offset duplicators
Rotary calculators
Key punch machines
Stenograph machines
Cash register
Key-driven calculators
Sorters
Verifiers
Computers
Accounting machines
Interpreters
Reproducers
Bookkeeping (posting) machine

Of the 102 BE teachers responding, the business machines available for use by less than 50 percent of the teachers were (in rank order):

Long-carriage typewriters
Copying machine (Thermofax, Xerox, etc.)
Dictation-transcription machines
Printing calculators
Mimeoscope

Full keyboard adding machine
Rotary calculator
Offset duplicator
Cash register
Key-driven calculator
Key punch machines
Stenograph machines
Bookkeeping (posting)
machine
Sorters
Verifiers
Interpreters
Reproducers
Addressograph
Collators
Computers

When comparing the kinds of business machines available for use to the 81 VOE teachers and 102 BE teachers, more machines were available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional six business machines; namely,

Dictation-transcription machines
Printing calculators
Copying machines
(Thermofax, Xerox, etc.)
Electronic calculators
Mimeoscope
Long-carriage typewriters

Manual typewriters were not available for use by over 50 percent of the VOE teachers, but were available for use by the BE teachers. Accounting machines were available for use by VOE teachers (2.5 percent), but not BE teachers. Addressographs were available for use by BE teachers (1.0 percent), but not VOE teachers.

As shown in Table 30 (Appendix C), of the 81 VOE teachers responding to the adequacy of the different business and office machines available, over 50 percent of the teachers indicated the following machines were Adequate (in rank order):

Fluid duplicators
Stencil duplicators
Electric typewriters
Dictation-transcription machines
Electronic calculators
Mimeoscope
Ten-key adding machines
Variable or proportional spacing typewriters
Copying machine (Thermofax, Xerox, etc.)

Of the 102 BE teachers responding to the adequacy of the different business and office machines available, over 50 percent of the teachers indicated only the electric typewriters as being Adequate.

Of the 81 VOE teachers responding to the adequacy of the different business and office machines available, less than 50 percent indicated the following machines were adequate (in rank order):

Printing calculators
Long-carriage typewriters
Manual typewriters
Offset duplicators
Collators
Full keyboard adding machines
Rotary calculators
Stenograph machines
Key-driven calculators
Keypunch machines
Cash register
Reproducers
Sorters
Bookkeeping (posting) machine
Accounting machines
Computers
Interpreters

Of the 102 BE teachers responding to the adequacy of the different business and office machines available, less than 50 percent indicated the following machines were Adequate (in rank order):

Manual typewriters
Fluid duplicators
Stencil duplicators
Ten-key adding machines
Mimeoscope
Copying machine
(Thermofax, Xerox, etc.)
Dictation-transcription
machines
Electronic typewriters
Long-carriage typewriters
Printing calculators
Full keyboard adding
machine
Variable or proportional
spacing typewriters
Offset duplicators
Rotary calculators
Bookkeeping (posting)
machine
Keypunch machines
Key-driven calculators
Stenograph machines
Cash register
Collators
Computers
Interpreters
Reproducers
Addressograph
Accounting machines
Sorters
Verifiers

When comparing the adequacy of business machines available for use to the 81 VOE teachers and 102 BE teachers, more adequate business machines were available to VOE teachers than BE teachers. Electric typewriters were the only business machines considered adequate by over 50 percent of the BE teachers. Over 50 percent of the 81 VOE teachers indicated an additional 8 different business machines as being adequate; namely,

Fluid duplicators
Stencil duplicators

Dictation-transcription machines
Ten-key adding machines
Electronic calculators
Mimeoscope
Variable or proportional spacing typewriters
Copying machine (Thermofax, Xerox, etc.)

IV. INSTRUCTIONAL MATERIALS AND MEDIA

The types of instructional materials and media and the opinions of the teachers regarding the adequacy of these materials and media are reported in this section.

As shown in Table 31 (Appendix C), regarding VOE and BE teachers, instructional materials and media available for use by over 50 percent of the VOE teachers were (in rank order):

Practice sets
Overhead projectors
Reference books (dictionaries, etc.)
Bulletin boards
Workbooks
Chalkboards
Filing sets
Textbooks
Film projector (sound)
Tape recorders
Filmstrip projector (sound)
Overhead transparencies (teacher made)
Record player
Periodicals
Projection screen
Records
Filmstrips
Telephones
Overhead transparencies (commercial)
Instructional tapes
Projection cart
Wall charts (commercial)
Films
Programmed textbooks

Instructional materials and media available for use by over 50 percent of the BE teachers were (in rank order):

Bulletin boards
Chalkboards
Overhead projector
Reference books (dictionaries, etc.)
Workbooks
Film projector (sound)
Practice sets
Filmstrip projector (sound)
Record player
Textbooks
Wall charts (commercial)
Projection screen
Records
Filmstrips
Overhead transparencies (teacher made)
Opaque projector
Periodicals
Films
Tape Recorders
Newspapers
Overhead Transparencies (commercial)
Projection chart

Instructional materials and media available for use by less than 50 percent of the VOE teachers were (in rank order):

Simulation materials
  Serendipity (49.4 percent)
  Lester Hill (17.3 percent)
  Apex (4.9 percent)
  Marathon (2.5 percent)
  Other (14.8 percent)
Newspapers
Wall charts (teacher made)
Opaque projector
Slide projector
Model secretary's desk (demonstration model)
Television (closed circuit)
Video tape equipment
Teaching machines
Other
Micro projector
Diatype analyzer
Skill builders (controlled reader)
Computer assisted instruction

Instructional materials and media available for use by less than 50 percent of the BE teachers were (in rank order):

Instructional tapes
Filing sets
Wall charts (teacher made)
Programmed textbooks
Slide projector
Model secretary's desk
(demonstration model)
Television (closed circuit)
Telephones
Video tape equipment
Simulation materials
Lester Hill (13.7 percent)
Serendipity (13.7 percent)
Apex (6.9 percent)
Marathon (2.9 percent)
Computer assisted instruction
Micro projector
Teaching machines
Other
Skill builders
Controlled reader
Diatype analyzer
Perceptoscope
Strong pacer
Tachistoscope
Other

When comparing instructional materials and media available for use to the 81 VOE teachers and 102 BE teachers, more materials were available to VOE teachers than BE teachers. Over 50 percent of the 81 VOE teachers indicated an additional four different instructional materials and media as being available; namely,

Filing sets
Programmed textbooks
Instructional tapes
Telephones

Opaque projectors and newspapers were available to over 50 percent of the BE teachers, but were not available to over 50 percent of the VOE teachers.

To determine whether the instructional materials and media available to BE and VOE teachers were being utilized in teaching, the teachers were asked to indicate whether they used the materials or media Often, Sometimes, or Never. The data collected on the extent of use of instructional materials and media are presented in Table 32 (Appendix C). If the particular item was not available at a school, the teacher could not give any rating to the item. Therefore, some of the individual cells in Table 32 do not total to 100 percent. The extent of use of the various items was also affected by the particular teaching assignment of the teachers in the survey. Some instructional materials and media are used more readily or frequently in certain subject areas.

Instructional materials and media used Often by over 50 percent of the VOE teachers were (in rank order):

Chalkboards
Reference books
Bulletin boards
Practice sets
Workbooks
Textbooks
Filing sets

Instructional materials and media used Often by over 50 percent of the BE teachers were (in rank order):

Bulletin boards
Chalkboards
Workbooks
Reference books
Textbooks

Instructional materials and media used Often by less than 50 percent of the VOE teachers were (in rank order):

Telephones
Overhead projector
Overhead transparencies
   Teacher made (33.3 percent)
   Commercial (19.8 percent)
Instructional tapes
Tape recorder
Programmed textbooks
Simulation materials
   Serendipity (24.7 percent)
   Lester Hill (12.3 percent)
   Apex (2.5 percent)
Wall charts
Periodicals
Projection screen
Model secretary's desk
   (demonstration model only)
Records
Record player
Video tape equipment:
   Teacher made (16.0 percent)
   Commercial (6.2 percent)
Projection cart
Filmstrip projector (sound)
Film (sound) projector
Television (closed circuit)
Newspapers
Teaching machines
Films
Filmstrips
Slide projector
Strong pacer
Micro projector
Opaque projector

Instructional materials and media used Often by less than 50 percent of the BE teachers were (in rank order):

Practice sets
Wall charts
Overhead projector
Video tape equipment
   Teacher made (24.5 percent)
   Commercial (2.9 percent)
Overhead transparencies:
   Teacher made (21.6 percent)
   Commercial (8.8 percent)
Projection screen

Periodicals
Filing sets
Record player
Tape recorder
Records
Filmstrip
Instructional tapes
Projection cart
Filmstrip projector (sound)
Programmed textbooks
Film (sound) projector
Films

When comparing the use of the different instructional materials and media by the 81 VOE teachers and 102 BE teachers, more instructional materials and media were used more often by VOE teachers than BE teachers. Over 50 percent of the VOE teachers indicated using an additional two instructional materials and media more often than BE teachers; namely, practice sets and filing sets.

As shown in Table 22, of the 81 VOE teachers responding to the adequacy of instructional materials and media, 22, or 27.2 percent, indicated Superior instructional materials and media; 37, or 45.7 percent, indicated Adequate; 17, or 21.0 percent, Somewhat Adequate; 1, or 1.2 percent, Inadequate; and 4, or 4.9 percent indicated No Response.

Of the 102 BE teachers responding to the adequacy of instructional materials and media, 7, or 6.9 percent, indicated Superior instructional materials and media; 33, or 32.4 percent, indicated Adequate; 40, or 39.2 percent, Somewhat Adequate; 7, or 6.9 percent, Inadequate; and 15, or 14.7 percent, indicated No Response.

A higher percentage of the VOE teachers (72.9 percent) rated their instructional materials and media adequate or superior than the BE

Table 22

ADEQUACY OF INSTRUCTIONAL MATERIALS AND MEDIA IN REGARD TO CURRENT EDUCATIONAL OBJECTIVES AS INDICATED BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 183 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

Adequacy of Instructional Materials and Media	Vocational Office Education N=81	%	Business Education N=102	%
Superior	22	27.2	7	6.9
Adequate	37	45.7	33	32.4
Somewhat Adequate	17	21.0	40	39.2
Inadequate	1	1.2	7	6.9
No Response	4	4.9	15	14.7

teachers (39.3 percent). Correspondingly, a higher percentage of the BE teachers (6.9 percent) rated their instructional materials and media inadequate than VOE teachers (1.2 percent).

V. SUMMARY

In this chapter the kinds of classroom facilities, business and office machines, and instructional materials and media available in 183 public senior high schools to VOE and BE teachers have been described and compared. The opinions of the teachers regarding the adequacy of the facilities, equipment, and instructional materials and media available in their schools were also compared. A questionnaire was received from 106 VOE teachers and 154 BE teachers. Not all teachers responded to all items on the questionnaire.

Both VOE and BE teachers responses were similar in that 18.4 percent of the VOE teachers and 20.5 percent of the BE teachers indicated they had collapsible walls to facilitate grouping. Also, the percentage (68.8 percent) of VOE teachers in medium-sized schools who had collapsible walls was similar to the percentage (79.2 percent) of BE teachers in medium-sized schools who had collapsible walls to facilitate grouping.

When comparing the classrooms of VOE teachers, it was found that a larger percentage (81.3 percent) of the BE teachers than VOE teachers (44.9 percent) did not have access to multi-channel equipment. A larger percentage (55.0 percent) of the VOE teachers had access to one or more classrooms equipped with multi-channel equipment than BE teachers (18.8 percent).

A larger percentage (60.5 percent) of the VOE teachers felt their facilities were adequate or superior than BE teachers (33.1 percent). Conversely, a larger percentage (16.9 percent) of the BE teachers felt their facilities were inadequate than the VOE teachers (5.7 percent).

When comparing the adequacy of classroom equipment available to the 81 VOE and 102 BE teachers, more adequate equipment was available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional four classroom items that they felt were adequate; namely,

Adjustable chairs (Typing)
Copyholders
Paper punch
Sink

A larger percentage (63.2 percent) of the VOE teachers felt their equipment was adequate or superior than BE teachers (37.0 percent). A larger percentage (11.0 percent) of the BE teachers than VOE teachers (8.5 percent) felt their equipment was inadequate.

When comparing the classroom equipment available to the 81 VOE teachers and 102 BE teachers, more equipment was available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional four classroom items; namely,

Adjustable chairs (Typing)
Sink
Model secretary's desk
(VOE, COE, or Shorthand)
Copyholders (Typing)

The VOE teachers had access to all the items checked by the BE teachers except Tables (Bookkeeping).

When comparing the kinds of business machines available for use to the 81 VOE teachers and 102 BE teachers, more machines were available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional six business machines; namely,

Dictation-transcription machines
Printing calculators
Copying machines
(Thermofax, Xerox, etc.)
Electronic calculators
Mimeoscope
Long-carriage typewriters

Manual typewriters were not available for use by over 50 percent of the VOE teachers, but were available for use by the BE teachers. Accounting machines were available for use by VOE teachers (2.5 percent), but not BE teachers. Addressographs were available for use by BE teachers (1.0 percent), but not VOE teachers.

When comparing the adequacy of business machines available for use to the 81 VOE teachers and 102 BE teachers, more adequate business machines were available to VOE teachers than BE teachers. Electric typewriters were the only business machines considered adequate by over 50 percent of the BE teachers. Over 50 percent of the 81 VOE teachers indicated an additional eight different business machines as being adequate; namely,

Fluid duplicators
Stencil duplicators
Dictation-transcription machines
Ten-key adding machines
Electronic calculators
Mimeoscope
Variable or proportional spacing typewriters
Copying machine (Thermofax, Xerox, etc.)

When comparing instructional materials and media available for use to the 81 VOE teachers and 102 BE teachers, more materials were available to VOE teachers than BE teachers. Over 50 percent of the 81 VOE teachers indicated an additional four different instructional materials and media as being available; namely,

Filing sets
Programmed textbooks
Instructional tapes
Telephones

Opaque projectors and newspapers were available to over 50 percent of the BE teachers, but were not available to over 50 percent of the VOE teachers.

When comparing the use of the different instructional materials and media by the 81 VOE teachers and 102 BE teachers, more instructional

materials and media were used more often by VOE teachers than BE teachers. Over 50 percent of the VOE teachers indicated using an additional two instructional materials and media more often than BE teachers; namely, practice sets and filing sets.

A higher percentage of the VOE teachers (72.9 percent) rated their instructional materials and media adequate or superior than the BE teachers (39.3 percent). Correspondingly, a higher percentage of the BE teachers (6.9 percent) rated their instructional materials and media inadequate than VOE teachers (1.2 percent).

In the concluding chapter on the analyses of data, Chapter VI, data concerning three selected auxiliary services for BE and VOE programs are analyzed. These services are guidance and counseling, business-oriented youth organizations, and advisory committees.

CHAPTER VI

GUIDANCE AND COUNSELING, BUSINESS-ORIENTED YOUTH ORGANIZATIONS AND ADVISORY COMMITTEES IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

I. INTRODUCTION

The purpose of this chapter is to describe the current scene of the guidance and counseling programs, business-oriented youth organizations, and advisory committees in Tennessee public senior high schools for the 1976-77 school year.

The chapter is divided into three major sections. In the first section, data concerning the number of counselors, and the method of selection, follow-up, and placement are presented and analyzed. In the second section, the importance and number of members in the business-oriented youth organizations are reported. In the third section, data concerning the meetings of the advisory committees are summarized.

The procedures used to gather the data for this chapter were described in Chapter I, pages 11-12. A mailed questionnaire was received from 260 BE and VOE teachers. Of the total 260 teachers surveyed, 154 were BE teachers and 106 were VOE teachers from 183 Tennessee public senior high schools. A smaller sample of 17 VOE programs were visited for a more intensive study of the guidance and

counseling program. This sample of 17 represented a convenient sample from east, west, and middle Tennessee public senior high schools. Not all teachers responded to all items in the questionnaire.

II. GUIDANCE AND COUNSELING PROGRAM

To determine whether vocational funding increased the number of guidance counselors in Tennessee public senior high schools, data on the number of full-time and part-time vocational counselors were collected. Seventeen VOE programs were visited for an in-depth study of the programs.

In 1976, of the 17 schools visited, 16 responded to the question concerning the number of full-time and part-time vocational counselors. Of the sixteen schools responding, one had a full-time vocational counselor and 3 had two; 6 had three; 4 had four; one had five; and one had six full-time vocational counselors. Fourteen schools had one part-time vocational counselor, one had two and one school had three part-time vocational counselors.

The types of information sent to the guidance department by BE and VOE teachers are listed in Table 23. Of the 72 VOE teachers responding, 68, or 94.4 percent, indicated they had sent curriculum descriptions to the guidance department. Of the 56 responding VOE teachers, 53, or 94.6 percent, indicated they had sent curriculum sequences; of the 47 responding, 43, 91.5 percent, indicated they had sent curriculum objectives; of the 44 responding, 42, or 95.5 percent, indicated they had sent program objectives; and of the 6 responding teachers, six, or 100 percent indicated they had sent other information.

Table 23

TYPE OF INFORMATION[a] PROVIDED GUIDANCE COUNSELORS BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

Type of Information	Vocational Office Education %	Business Education %
Course Descriptions	94.4	95.3
Curriculum Sequences	94.6	93.2
Curriculum Objectives	91.5	90.2
Program Objectives	95.5	91.9
Other	100.0	100.0

[a]Teachers were asked to mark as many as appropriate.

Of the 85 BE teachers responding to the question concerning whether they sent course descriptions to the guidance department, 81, or 95.3 percent, indicated sending course descriptions; of the 59 responding, 55, or 93.2 percent, indicated sending curriculum sequences; of the 41 responding, 37, or 90.2 percent, indicated sending curriculum objectives; of the 37 responding, 34, or 91.9 percent, indicated sending program objectives; of the 6 responding, 6, or 100.0 percent, indicated sending other information.

The percentage of BE and VOE teachers sending course descriptions to the guidance department were similar. However, more teachers of VOE programs had sent curriculum sequences (94.6 percent), curriculum objectives (91.5 percent), program objectives (95.5 percent), and other types of information (100.0 percent) to the guidance department than teachers of BE programs (93.2 percent, 90.2 percent, 91.9 percent, respectively).

Data were also collected concerning the relationship and cooperation of the guidance department, the BE department, and the VOE department in relation to selection, follow-up studies, and job placement of business graduates. The information for these areas is summarized below.

The State Board for Vocational Education requires secondary schools to have comprehensive guidance services to include in-school and out-of-school pupil placement and follow-up activities.[1]

Selection

When the 106 VOE teachers were asked whether the guidance counselors conferred with their department teachers concerning the selection of students for their specialty programs, 86, or 81.1 percent, of the teachers responded. Of the 86 VOE teachers responding, 48, or 55.8 percent, indicated guidance counselors conferred with their department teachers concerning the selection of students for their specialty programs. An additional 33, or 38.4 percent, of the VOE teachers reported that, while they do not confer, they believed that this practice would help to improve their programs.

When the 154 BE teachers were asked whether the guidance counselors conferred with their department teachers concerning the selection of students for their specialty program, 117, or 76.0 percent, of the teachers responded. Of the 117 responding, 60, or 51.3 percent, indicated guidance counselors conferred with their department teachers concerning

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[1] Rules, Regulations, and Minimum Standards, 1976-77, op. cit., p. 97.

the selection of students for their specialty programs. An additional 50, or 42.7 percent, of the BE teachers reported that, while they do not confer, they believed that this practice would help to improve their programs.

When the VOE and BE teachers were asked whether the guidance counselors conferred with their department teachers concerning the selection of students for their specialty programs, 81.1 percent of the VOE teachers and 76.0 percent of the BE teachers responded. An additional 38.4 percent of the VOE teachers and 42.7 percent of the BE teachers reported that, while they do not confer with the guidance counselors concerning the selection of students for their specialty program, they believed that this practice would help to improve their programs.

Follow-Up

Of the 82 VOE teachers responding to the question of conducting periodic follow-up studies, 66, or 80.5 percent, indicated they conducted periodic follow-up studies of graduates.

Of the 120 BE teachers responding to the question of conducting periodic follow-up studies, 34, or 28.3 percent, indicated they conducted periodic follow-up studies of graduates.

Of the 83 VOE teachers responding to the question concerning departmental files on the follow-up studies of graduates, 48, or 57.8 percent, indicated they maintained files.

Of the 121 BE teachers responding to the question concerning departmental files on the follow-up studies of graduates, 21, or 17.4 percent, indicated they maintained files.

More of the VOE teachers (80.5 percent) conducted periodic follow-up studies than BE teachers (28.3 percent). More of the VOE teachers (57.8 percent) maintained departmental files on the follow-up studies of graduates than BE teachers (17.4 percent).

Placement

Of the 85 VOE teachers responding to the question concerning whether their department actively participated in the job placement of business graduates, 57, or 67.1 percent, indicated they actively participated in the job placement of their graduates.

Of the 120 BE teachers responding to the question concerning whether their department actively participated in the job placement of business graduates, 53, or 44.2 percent, indicated they actively participated in the job placement of their graduates.

Even though 80.5 percent of the VOE teachers conducted periodic follow-up studies of graduates, 19.5 percent are not complying with State requirements. Likewise, even though 67.1 percent of the VOE teachers actively participated in the job placement of their graduates, 32.9 percent still are not complying with State requirements.

Follow-up and placement services were provided by 28.3 percent and 44.2 percent (respectively) of the BE teachers even though this service was not required for BE teachers.

III. YOUTH ORGANIZATIONS

As an integral part of the secondary VOE program of instruction in Tennessee, a youth organization is highly recommended. The following is a description of that organization:

> The Tennessee Office Education Club (TOEC) is the youth organization for persons enrolled in office occupations programs. The primary purposes of this organization are to provide motivation, to serve as a tool of instruction, to provide leadership training to the extent necessary to insure success in the student's chosen occupation and to insure desirable citizenship. The activities of the youth organization are an integral part of the instruction.[2]

Authorization for the organizing and conducting of vocational youth organizations was provided in Section 1.33 of the State Plan. It further stipulated that the responsibility of these services was with the regular public school vocational teachers. Youth organization activities were designed as an integral part of the instructional program in which the student was enrolled. Specific activities engaged in by the student as part of the program of the organization were an outgrowth of instruction. The activities were used to enrich the program of instruction as a motivating factor aiding the teacher to assist the student to reach his/her vocational objective and to provide training in leadership, cooperation, and citizenship.

The 260 BE and VOE teachers were asked to rate the importance of the youth organizations in terms of individual benefits to the students. Of the total 260 teachers surveyed, 145 teachers responded to the question. Therefore, the following section represents data from these 145 teachers. As shown in Table 24, of the 145 teachers responding, 48, represented small schools; 90, medium schools; and 7, large schools. Of the 145 teachers responding, 102, or 70.3 percent, rated the youth

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[2] Rules, Regulations, and Minimum Standards, 1976-77, op. cit., p. 97.

Table 24

THE IMPORTANCE OF BUSINESS-ORIENTED YOUTH ORGANIZATIONS IN TERMS OF INDIVIDUAL BENEFITS TO STUDENTS AS INDICATED BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

Importance of Youth Organizations	Small		Medium		Large		All	
	N	%	N	%	N	%	N	%
Very Important	14	29.2	19	21.1	—	0.0	33	22.8
Important	31	64.6	65	72.2	6	85.7	102	70.3
Not Important	3	6.3	6	6.7	1	14.3	10	6.9
Totals	48	100.0	90	100.0	7	100.0	145	100.0

organizations Important; 33, or 22.8 percent, Very Important; and 10, or 6.9 percent, Not Important.

Of the 48 teachers responding in small schools, 31, or 64.6 percent, rated the youth organizations as Important; 14, or 29.2 percent, Very Important; and 3, or 6.3 percent, indicated the youth organizations were Not Important in terms of individual benefits to students.

Of the 90 teachers responding in medium schools, 65, or 72.2 percent, rated the youth organizations as Important; 19, or 21.1 percent, Very Important; and 6, or 6.7 percent, indicated the youth organizations were Not Important; in terms of individual benefits to students.

Of the 7 teachers responding in large schools, 6, or 85.7 percent, rated the youth organizations as Important; 1, or 14.3 percent, Not Important; none of the teachers indicated the youth organizations were Very Important in terms of individual benefits to students.

There was a difference in perception about business-oriented youth organizations. Teachers in small and medium schools felt about the same as far as the importance of business-oriented youth organizations in terms of individual benefits to students. Teachers in small and medium schools rated the youth organizations between 93.3 percent and 93.8 percent as being either Very Important or Important. None of the teachers in large schools considered the youth organizations as Very Important while 29.2 percent and 21.1 percent of the teachers in small and medium schools considered the youth organizations as Very Important. A larger percentage of the teachers in small schools (14.3 percent) felt the youth organization was Not Important while only 6.3 percent and 6.7 percent of the teachers in small and medium schools felt the youth organizations were Not Important. The majority of the teachers responding (93.1 percent) felt the business-oriented youth organizations were Important.

To contrast the importance of the business-oriented youth organizations, Table 25 was constructed. Of the 145 teachers responding, 106 were VOE teachers and 59 were BE teachers.

Of the 106 VOE teachers responding, 63, or 59.4 percent, rated the business-oriented organizations Important; 16, or 15.1 percent, Very Important; and 27, or 25.5 percent, Not Important.

Of the 59 BE teachers responding, 39, or 41.1 percent rated the business-oriented youth organizations Important; 17, or 17.9 percent, Very Important; and 3, or 3.2 percent, Not Important.

A larger percentage of the VOE teachers (74.5 percent) rated the business-oriented youth organizations in terms of individual benefits

Table 25

THE IMPORTANCE OF BUSINESS-ORIENTED YOUTH ORGANIZATIONS IN TERMS OF INDIVIDUAL BENEFITS TO STUDENTS BY TYPE OF PROGRAM

Importance of Youth Organizations	Vocational Office Education N=106	%	Business Education N=59	%
Very Important	15	15.1	17	17.9
Important	63	59.4	39	41.1
Not Important	27	25.5	3	3.2

to students as being Important than BE teachers (59.0 percent). Also, a larger percentage (25.5 percent) of the VOE teachers rated the business-oriented youth organizations as Not Important than BE teachers (3.2 percent).

As shown in Table 26, of the 106 VOE teachers responding to the question concerning the activities of the youth organization, 85, or 80.2 percent, indicated they had Outside Speakers; 55, or 51.9 percent, indicated Field Trips; 64, or 60.4 percent, indicated Regular Meetings; 59, or 55.7 percent, indicated Regional, State or National contests; 50, or 47.2 percent, indicated Projects; and 5, or 4.7 percent, indicated Others.

Of the 154 BE teachers responding to the question concerning the activities of the youth organization, 44, or 28.6 percent, indicated Outside Speakers; 23, or 14.9 percent, indicated Field Trips; 37, or 24.0 percent, indicated Regular Meetings; 33, or 21.4 percent, indicated Regional, State or National contests; 23, or 14.9 percent, indicated Projects; and 1, or 0.6 percent, indicated Others.

Table 26

ACTIVITIES OF THE YOUTH ORGANIZATION

Activities[a]	Vocational Office Education		Business Education	
	N	%	N	%
Outside Speakers	85	80.2	44	28.6
Field Trips	55	51.9	23	14.9
Regular Meetings	64	60.4	37	24.0
Regional, State or National Contests	59	55.7	33	21.4
Projects	50	47.2	23	14.9
Others	5	4.7	1	0.6

[a]Each teacher was asked to mark as many as appropriate.

More VOE teachers (47.2 percent to 60.4 percent) spent time on youth activities than BE teachers (14.9 percent to 28.6 percent).

As shown in Table 27, of the total 106 VOE teachers surveyed, 83 responded to the question on VOE youth organization membership. Of the 83 VOE teachers responding, 16, or 19.3 percent, indicated an enrollment of 21 or less; 47, or 56.6 percent, indicated 20-50; 12, or 14.5 percent, indicated 51-75, 5, or 6.0 percent, indicated 76-100; and 3, or 3.6 percent, indicated 101 or more.

A large percentage of the VOE teachers (56.6 percent) indicated youth organization membership in 1976-77 was between 26-50 members.

IV. ADVISORY COMMITTEES

In the Appendix of the 1976-77 Tennessee State Plan, the State Advisory Council recommended that each high school have an active

Table 27

VOCATIONAL OFFICE EDUCATION YOUTH ORGANIZATION MEMBERSHIP AS INDICATED BY VOCATIONAL OFFICE EDUCATION TEACHERS IN TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

VOE Youth Organization Membership	Vocational Office Education N=83	%
21 or less	16	19.3
26-50	47	56.6
51-75	12	14.5
76-100	5	6.0
101 or more	3	3.6
Totals	83	100.0

general advisory committee and appropriate craft committees for vocational education. The council further recommended that state vocational leadership develop and implement programs to assist high schools to effectively utilize lay advisory committees for the purpose of advising their respective boards on the development, operation, and evaluation of programs. The following was their recommendation:

> Consideration: The use of general advisory committees for the purpose of providing input during the development, operation, and evaluation of vocational programs is recognized as a very desirable goal. . . .

Of the 106 VOE teachers surveyed, 42, or 49.4 percent, indicated they did not have an advisory committee. Of the 154 BE teachers surveyed, 98, or 85.2 percent, of the teachers indicated they did not have an advisory committee. Of the total teachers, 21 VOE teachers and 39 BE teachers did not respond to the question.

As shown in Table 28, of the 85 responding VOE teachers, 8, or 9.4 percent, indicated the advisory committee has never met; 8, or 9.4 percent, indicated met once last year; 7, or 8.2 percent, indicated met once this year; 3, or 3.5 percent, indicated met twice this year; 2, or 2.4 percent, indicated met three or more times this year; and 15, or 17.6 percent, indicated plans to meet this year.

Table 28

MEETINGS OF THE ADVISORY COMMITTEES

Advisory Committee Meetings	Vocational Office Education		Business Education	
	N	%	N	%
Has never met	8	9.4	3	2.6
Met once last year	8	9.4	1	0.9
Met once this year	7	8.2	3	2.6
Met twice this year	3	3.5	3	2.6
Met three or more times this year	2	2.4	3	2.6
Plans to meet this year	15	17.6	4	3.5

Of the 115 responding BE teachers, 3, or 2.6 percent, indicated the advisory committee has never met; 1, or 0.9 percent, indicated met once last year; 3, or 2.6 percent, indicated met once this year; 3, or 2.6 percent, indicated met twice this year; 3, or 2.6 percent, indicated met three or more times this year; and 4, or 3.5 percent, indicated plans to meet this year.

More VOE teachers (50.6 percent) had advisory committees than BE teachers (14.8 percent) which would be a normal finding since they are

not recommended for the BE teachers. A larger percentage of the advisory committees of VOE programs (17.6 percent) had plans to meet in 1976-77 than advisory committees of BE programs (3.5 percent).

V. SUMMARY

In this chapter data concerning three selected auxiliary services available to BE were analyzed. These areas were: the guidance and counseling program at the high school, the business-oriented youth organization, and the adivosry committees. These areas are closely related to the Vocational Education Acts of 1963 and 1968 which provide partial reimbursement for salaries of vocational guidance counselors and the state personnel responsible for giving direction to the youth organizations.

The sources of data utilized for this chapter were a mail questionnaire to 154 BE and 106 VOE teachers and a personal visit to 17 VOE programs. The questionnaire was mailed prior to the visitation and then collected at the time of the visit. The findings of this chapter are presented below.

The percentage of BE and VOE teachers sending course description to the guidance department were similar. However, more teachers of VOE programs had sent curriculum sequences (94.6 percent), curriculum objectives (91.5 percent), program objectives (95.5 percent), and other types of information (100.0 percent) to the guidance department than teachers of BE programs (93.2 percent, 90.2 percent, 91.9 percent, respectively).

More of the VOE teachers (81.1 percent) indicated that the guidance counselors conferred with their department teachers concerning the selection of students for their specialty programs than BE teachers (76.0 percent). An additional 38.4 percent of the VOE teachers and 42.7 percent of the BE teachers reported that while they do not confer with the guidance counselors concerning the selection of students for their specialty program, they believed that this practice would help improve their programs.

More of the VOE teachers (80.5 percent) conducted periodic follow-up studies than BE teachers (28.3 percent). More of the VOE teachers (57.8 percent) maintained departmental files on the follow-up studies of graduates than BE teachers (17.4 percent).

Even though 80.5 percent of the VOE teachers conducted periodic follow-up studies of graduates, 19.5 percent are not complying with State requirements. Likewise, even though 67.1 percent of the VOE teachers actively participated in the job placement of their graduates, 32.9 percent still are not complying with State requirements.

There was a difference in perception about business-oriented youth organizations. Teachers in small and medium schools felt about the same as far as the importance of business-oriented youth organizations in terms of individual benefits to students. Teachers in small and medium schools rated the youth organizations between 93.3 percent and 93.8 percent as being either important or very important. None of the teachers in large schools considered the youth organizations as "Very Important" while 29.2 percent and 21.1 percent of the teachers

in small and medium schools considered the youth organizations as "Very Important." A larger percentage of the teachers in small schools (14.3 percent) felt the youth organization was not important while only 6.3 percent and 6.7 percent of the teachers in small and medium schools felt the youth organizations were not important. The majority of the teachers responding (93.1 percent) felt the business-oriented youth organizations were important.

A larger percentage of the VOE teachers (74.5 percent) rated the business-oriented youth organizations in terms of individual benefits to students as being important than BE teachers (59.0 percent). Also, a larger percentage (25.5 percent) of the VOE teachers rated the business-oriented youth organizations as not important than BE teachers (3.2 percent).

More VOE teachers (47.2 percent to 60.4 percent) spent time on youth activities than BE teachers (14.9 percent to 28.6 percent).

A larger percentage of the VOE teachers (56.6 percent) indicated youth organization membership in 1976-77 was between 26-50 members.

More VOE teachers (50.6 percent) had advisory committees than BE teachers (14.8 percent). A larger percentage of the advisory committees of the VOE programs (17.6 percent) had plans to meet in 1976-77 than advisory committees of BE programs (3.5 percent).

A summary of the findings and the conclusions and recommendations for this study on the analysis of BE and VOE in the public senior high school since the passage of the Vocation Education Act of 1963 is presented in the next chapter, Chapter VII.

CHAPTER VII

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

I. INTRODUCTION

The purpose of this study was to describe possible differences in BE in the public senior high schools of Tennessee since the passage of the National Vocational Education Act of 1963. Included among the specific factors investigated for the school years 1962-63 and 1976-77 were (1) the course and program offerings, and (2) the student enrollments. Current factors investigated because of their relationship to vocational funding were (1) teacher certification, (2) classroom facilities and equipment, (3) business and office machines, (4) instructional materials and media, (5) the guidance and counseling program, (6) the business-oriented youth organization, and (7) the advisory committees. In order to describe the possible differences in high school BE programs in Tennessee, answers were sought to the following questions:

1. How have enrollments, course and program offerings changed from the 1962-63 school year to the 1976-77 school year in small, medium, and large high schools in Tennessee?

2. What is the status of teachers in terms of professional preparation in reimbursed and nonreimbursed BE programs?

3. What changes have taken place in terms of student participation in business-oriented youth organizations from the 1962-63 to the 1976-77 school years?

4. What classroom facilities and equipment are available in reimbursed and nonreimbursed BE programs? What are the teachers' opinions regarding the adequacy of these facilities and equipment?

5. What types of instructional materials and media are available in reimbursed and nonreimbursed BE programs? What are the teachers' opinions regarding the adequacy of the instructional materials and media?

6. What process is being used for student selection in reimbursed and nonreimbursed programs?

7. What follow-up program is being used by reimbursed and nonreimbursed BE programs?

8. What job placement practice is being used by reimbursed and nonreimbursed BE programs?

Several records and publications of the Tennessee State Department of Education were used in this study.

The Tennessee Directory of Public Schools for 1962-63 and 1976-77 school years listed the names and addresses of all public senior high schools and the names of their respective principals. The 1962-63 directory was used to verify that the represented schools existed in 1962-63.

The specialist for business and office affairs in the state department of education provided a directory of the public senior high schools whth reimbursed VOE programs. Names and addresses of teachers, local directors and supervisors were also obtained from this directory.

Each regional specialist for business and office education provided a roster of the public senior high schools with nonreimbursed BE

programs. Names and addresses of teachers were obtained from this directory.

The 1962-63 high school preliminary report forms and a 1976 statistical printout form listed the names of BE courses and VOE programs and their respective student enrollments. These reports supplied the data on course offerings in BE and student enrollment in these courses. Data accumulation sheets were prepared to facilitate the hand recording of this information. The printout provided the comparative data for the 1976-77 school year.

The questionnaire for BE and VOE teachers were used to collect current data on BE in Tennessee public senior high schools.

The population for this study consisted of 683 public senior high school BE teachers (nonreimbursed) and 228 VOE teachers (reimbursed) in Tennessee. BE teachers represented nonreimbursed programs and VOE teachers represented reimbursed programs.

Questionnaires were received from 154 BE teachers and 106 VOE teachers. Not all teachers responded to all items in the questionnaire.

Of the total 260 teachers responding in the sample, 183 different schools were represented. Initially it was necessary to drop 75 of the schools because of changes such as consolidations or newly organized schools; 12 were dropped because the preliminary report of the high school principal for the 1962-63 and 1976-77 school years could not be located. Finally, a sample of 96 schools was used for the comparative study of data on courses, programs, and enrollments for the school years 1962-63 and 1976-77.

A smaller sample of 17 reimbursed VOE programs was used for a more intensive study of BE. The data were collected with the use of a questionnaire and personal interviews with high school personnel and teachers of VOE programs. This sample of 17 represented a convenient sample from east, west, and middle Tennessee public senior high schools.

II. FINDINGS

The findings for this study of BE in Tennessee public senior high schools are presented under the subheadings of courses, programs, and enrollments; teacher certification; classroom facilities and equipment, business and office machines, instructional materials and media; and guidance and counseling, business-oriented youth organizations, and advisory committees.

Courses, Programs, and Enrollments

1. Of the total 96 schools represented in this study, there were 249 BE teachers and 41 VOE teachers.

2. Of the 96 schools represented in this study, 96 offered BE courses and only 29 offered VOE programs.

3. In 1962-63 and 1976-77, there was a shift from the 9-12 grade category to the 10-12 grade category as the most common grade category for the total 96 schools. The least popular category for all three classifications of schools was 8-12. The largest number of small schools remained in the 9-12 grade category in 1976-77; however, there was a slight shift to the 10-12 grade category. In the medium schools, there

was a shift from 9-12 to 10-12 grade category from 1962-63 to 1976-77 school year. The large schools remained the same (9-12 and 10-12 each with 50 percent) except for one large school experiencing declining enrollment from 1962-63 to 1976-77. A slight change in the number of schools for each grade classification from 1962-63 to 1976-77 was evident. For example, in 1962-63, of the 96 schools, 41 were classified as small as contrasted with 49 in 1976-77; in 1962-63, 50, small, with 43 in 1976-77; and in 1962-63, 5, large, with 4 in 1976-77.

4. For the 1976-77 school year, there was a 24 percent decrease in the number of the 96 schools offering 1-4 courses and a 24 percent increase in the number of schools offering 5 or more courses. Between 1962-63 and 1976-77, schools tended to offer more business courses.

5. From 1962-63 to 1976-77 school year the mode increased from 4 to 5. There was a tendency towards offering more BE courses.

6. None of the schools represented in this study offered VOE Stenography I or Principles of Business in 1976-77. In 1962-63, none of the schools offered Salesmanship.

7. Consumer Economics, Introduction to VOE, Records Management (a course taught in one school but not listed in the 1976-77 Rules, Regulations, and Minimum Standards as a course in the curriculum) and Salesmanship (a course removed from the 1976-77 Rules, Regulations, and Minimum Standards) were BE courses added to the curriculums of the total 96 schools between the 1962-63 and 1976-77 school years. Consumer Education was dropped from the BE curriculums between the 1962-63 and the 1976-77 school years. VOE programs added to the curriculums of

29 of the 96 schools represented in this study were: Stenographic/Secretarial, Clerical/Machine Operator, Data Processing. Bookkeeping/Accounting nor Supervisory/Management programs were offered in the 29 schools offering VOE programs.

8. From 1962-63 to 1976-77, total adjusted school enrollment increased 9.6 percent; the total adjusted business enrollment increased 47.3 percent.

9. In 1962-63, 42 percent of the total school enrollment was in business courses; in 1976-77, 56 percent. From 1962-63 to 1976-77 there was a 14 percent increase in business enrollment. In 1976-77, 16 percent of the total business enrollment (38,392), was in VOE programs.

10. The number of schools offering General Business and Business Arithmetic increased during the 15-year period; likewise, the percentage of total student enrollment taking these courses increased. The three courses showing the greatest decrease in the number of schools offering the courses and in the number of students taking the courses were Shorthand I, Typing II, and Shorthand II.

11. The most popular courses in the 96 schools represented during the 1962-63 and 1976-77 school years were (in rank order):

Typing I
Bookkeeping I
Shorthand I
Typing II
General Business

12. The courses showing an increase in popularity in the 96 schools represented between the 1962-63 and 1976-77 school years were (in rank order):

Bookkeeping I
General Business
Business Arithmetic I
Business Law I
Business Machines
Business English I
Bookkeeping II
Secretarial Practice I

13. The courses showing a decrease in popularity in the 96 schools represented during the 1962-63 and 1976-77 school years were (in rank order):

Typing I
Shorthand I
Typing II
Shorthand II
Clerical or Office Practice

14. In 1962-63, the three most popular BE courses in the total 96 schools were (in rank order):

Typing I
Shorthand I
Typing II

15. In 1976-77, the three most popular BE courses in the total 96 schools were (in rank order):

Typing I
Bookkeeping I
Shorthand I

16. In 1976-77, the most popular VOE program offered in 29 of the 96 schools represented with VOE programs was Clerical/Machine operator.

Teacher Certification

17. In 1976, the only change in certification for BE teachers was dropping the single endorsement for Economics and omitting the word Secretarial from the Office or Clerical Practice endorsement.

18. Between 1972 and 1976 VOE teachers had to meet BE teacher requirements for certification plus (a) 2,000 hours of office work experience, (b) complete three (1972) or four (1976) required courses for VOE certification, and (c) one year teaching experience (1976) at an accredited institution in BE.

19. The highest percentage (41.2 percent) of teachers with Master's degrees was found in the large schools. The highest percentage of teachers with Bachelor's degrees was found in small (61.4 percent) and medium (53.5 percent) schools. Approximately one half (43.5 percent) of the total 260 teachers had college degrees beyond the Bachelors.

20. Less than half (44.3 percent) the VOE teachers surveyed had earned no more than a Bachelor's degree (a state requirement), while 60.4 percent of the BE teachers had earned no more than a Bachelor's degree. A larger percentage of the VOE teachers surveyed (35.8 percent) had earned a Master's degree than had the BE teachers (27.3 percent). A larger percentage of the VOE teachers (19.8 percent) had completed work beyond the Masters than had the BE teachers (12.3 percent). VOE teachers were slightly more "educated" as indicated by the highest degree held. Up until 1976, the State required a Bachelor's degree plus required three graduate courses for VOE certification, yet 44.3 percent of the VOE teachers surveyed did not meet that requirement. (Until 1976, initial certification for VOE teachers had to be completed within a five-year period.)

21. A comparison of the number of years of office work experience by the 106 VOE and 154 BE teachers surveyed showed that 95.3 percent of

the VOE teachers and 85.7 percent of the BE teachers had one or more years of office work experience. Five, or 4.7 percent, of the VOE teachers did not meet State requirements for VOE certification.

22. Median years of work experience for both VOE and BE teachers were one to two years. Even though BE teachers were not required to have work experience, 85.7 percent did have work experience—thus providing a supply of vocational certifiable teachers.

23. More of the BE teachers (50.0 percent) had had Tests and Measurement than VOE teachers (44.3 percent). Of the four special courses required for certification, 72.6-84.0 percent of the VOE teachers had had the courses in contrast to 27.3-35.7 percent of the BE teachers, which would be a normal finding. Of the total 106 VOE teachers, 55.7 percent still needed Tests and Measurement. There were still VOE teachers in the State who needed additional courses for VOE certification. Of the total 260 VOE and BE teachers, 40, or 15.4 percent, had had all four courses—VOE, 70.0 percent; BE, 30.0 percent.

24. The number of years of teaching experience of both VOE and BE teachers were similar. Over 70 percent of both the VOE (74.5 percent) and BE teachers (71.4 percent) had seven or more years of teaching experience.

25. The mode for the number of years of teaching VOE as indicated by 106 VOE teachers was three to four years.

Classroom Facilities and Equipment, Business and Office Machines, and Instructional Materials and Media

26. Both VOE and BE teachers responses were similar in that 18.4 percent of the VOE teachers and 20.5 percent of the BE teachers indicated they had collapsible walls to facilitate grouping. Also, the percentage (68.8 percent) of VOE teachers in medium-sized schools who had collapsible walls was similar to the percentage (79.2 percent) of BE teachers in medium-sized schools who had collapsible walls to facilitate grouping.

27. When comparing the classrooms of VOE teachers, it was found that a larger percentage (81.3 percent) of the BE teachers than VOE teachers (44.9 percent) did not have access to multi-channel equipment. A larger percentage (55.0 percent) of the VOE teachers had access to one or more classrooms equipped with multi-channel equipment than BE teachers (18.8 percent).

28. A larger percentage (60.5 percent) of VOE teachers felt their facilities were adequate or superior than BE teachers (33.1 percent). Conversely, a larger percentage (16.9 percent) of the BE teachers felt their facilities were inadequate than the VOE teachers (5.7 percent).

29. When comparing the adequacy of classroom equipment available to the 81 VOE and 102 BE teachers, more adequate equipment was available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional four classroom items that they felt were adequate; namely,

Adjustable chairs (Typing)
Copyholders
Paper punch
Sink

30. A larger percentage (63.2 percent) of the VOE teachers felt their equipment was adequate or superior than BE teachers (37.0 percent). A larger percentage (11.0 percent) of the BE teachers than VOE teachers (8.5 percent) felt their equipment was inadequate.

31. When comparing the classroom equipment available to the 81 VOE teachers and 102 BE teachers, more equipment was available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional four classroom items; namely,

Adjustable chairs (Typing)
Sink
Model Secretary's Desk
(VOE, EOE, or Shorthand)
Copyholders (Typing)

The VOE teachers had access to all the items checked by the BE teachers except Tables (Bookkeeping).

32. When comparing the kinds of business machines available for use to the 81 VOE teachers and 102 BE teachers, more machines were available to VOE teachers than BE teachers. Over 50 percent of the VOE teachers had access to an additional six business machines; namely,

Dictation-transcription machines
Printing calculators
Copying machines
(Thermofax, Xerox, etc.)
Electronic calculators
Mimeoscope
Long-carriage typewriters

Manual typewriters were not available for use by over 50 percent of the VOE teachers, but were available for use by the BE teachers. Accounting machines were available for use by VOE teachers (2.5 percent), but not BE teachers. Addressographs were available for use by BE teachers (1.0 percent), but not VOE teachers.

33. When comparing the adequacy of business machines available for use to the 81 VOE teachers and 102 BE teachers, more adequate business machines were available to VOE teachers than BE teachers. Electric typewriters were the only business machines considered adequate by over 50 percent of the BE teachers. Over 50 percent of the 81 VOE teachers indicated an additional eight different business machines as being adequate; namely,

Fluid duplicators
Stencil duplicators
Dictation-transcription machines
Ten-key adding machines
Electronic calculators
Mimeoscope
Variable or proportional
spacing typewriters
Copying machine
(Thermofax, Xerox, etc.)

34. When comparing instructional materials and media available for use to the 81 VOE teachers and 102 BE teachers, more materials were available to VOE teachers than BE teachers. Over 50 percent of the 81 VOE teachers indicated an additional four different instructional materials and media as being available; namely,

Filing sets
Programmed textbooks
Instructional tapes
Telephones

Opaque projectors and newspapers were available to over 50 percent of the BE teachers, but were not available to over 50 percent of the VOE teachers.

35. When comparing the use of the different instructional materials and media by the 81 VOE teachers and 102 BE teachers, more instructional

materials and media were used more often by VOE teachers than BE teachers. Over 50 percent of the VOE teachers indicated using an additional two instructional materials and media more often than BE teachers; namely, practice sets and filing sets.

36. A higher percentage of the VOE teachers (72.9 percent) rated their instructional materials and media adequate or superior than the BE teachers (39.3 percent). Correspondingly, a higher percentage of the BE teachers (6.9 percent) rated their instructional materials and media inadequate than VOE teachers (1.2 percent).

The Guidance and Counseling Program, Business-Oriented Youth Organizations, and Advisory Committees

37. The percentage of BE and VOE teachers sending course description to the guidance department were similar. However, more teachers of VOE programs had sent curriculum sequences (94.6 percent), curriculum objectives (91.5 percent), program objectives (95.5 percent), and other types of information (100.0 percent) to the guidance department than teachers of BE programs (93.2 percent, 90.2 percent, 91.9 percent, respectively).

38. More of the VOE teachers (81.1 percent) indicated that the guidance counselors conferred with their department teachers concerning the selection of students for their specialty programs than BE teachers (76.0 percent). An additional 38.4 percent of the VOE teachers and 42.7 percent of the BE teachers reported that while they do not confer with the guidance counselors concerning the selection of students for

their specialty program, they believed that this practice would help to improve their programs.

39. More of the VOE teachers (80.5 percent) conducted periodic follow-up studies than BE teachers (28.3 percent). More of the VOE teachers (57.8 percent) maintained departmental files on the follow-up studies of graduates than BE teachers (17.4 percent).

40. Even though 80.5 percent of the VOE teachers conducted periodic follow-up studies of graduates, 19.5 percent were not complying with State requirements. Likewise, even though 67.1 percent of the VOE teachers actively participated in the job placement of their graduates, 32.9 percent still were not complying with State requirements.

41. Follow-up and placement services were provided by 28.3 percent and 44.2 percent (respectively) of the BE teachers even though this service was not required for BE teachers.

42. There was a difference in perception about business-oriented youth organizations. Teachers in small and medium schools felt about the same as far as the importance of business-oriented youth organizations in terms of individual benefits to students. Teachers in small and medium schools rated the youth organizations between 93.3 percent and 93.8 percent as being either important or very important. None of the teachers in large schools considered the youth organizations as "Very Important" while 29.2 percent and 21.1 percent of the teachers in small and medium schools considered the youth organizations as "Very Important." A larger percentage of the teachers in small schools (14.3 percent) felt the youth organization was not important while only 6.3 percent and

6.7 percent of the teachers in small and medium schools felt the youth organizations were not important. The majority of the teachers responding (93.1 percent) felt the business-oriented youth organizations were important.

43. A larger percentage of the VOE teachers (74.5 percent) rated the business-oriented youth organizations in terms of individual benefits to students as being important than BE teachers (59.0 percent). Also, a larger percentage (25.5 percent) of the VOE teachers rated the business-oriented youth organizations as not important than BE teachers (3.2 percent).

44. More VOE teachers (47.2 percent to 60.4 percent) spent time on youth activities than BE teachers (14.9 percent to 28.6 percent).

45. A larger percentage of the VOE teachers (56.6 percent) indicated youth organization membership in 1976-77 was between 26-50 members.

46. More VOE teachers (50.6 percent) had advisory committees than BE teachers (14.8 percent). A larger percentage of the advisory committees of the VOE programs (17.6 percent) had plans to meet in 1976-77 than advisory committees of BE programs (3.5 percent).

III. CONCLUSIONS

Based on the assumption that the BE and VOE teachers and curriculums studied for the 1962-63 and 1976-77 school years are respresentative of all curriculums and teachers in the public senior high schools of Tennessee, the following conclusions appear to be justified concerning

the changes in BE at the senior high school level since the passage of the Vocational Education Act of 1963. The conclusions are grouped under three headings for easier reading: (1) VOE and BE Programs, (2) VOE Programs and (3) BE Programs.

Vocational Office Education and Business Education Programs

1. The ultimate goal of both BE and VOE programs is the same—to prepare students for the world of work in the office area.

2. Business teachers in Tennessee are classified into two groups—BE (nonreimbursed) and VOE (reimbursed).

3. Supervision at the State and regional levels is available to the VOE teachers and not the BE teachers.

4. The majority of the students in business are getting their preparation from BE teachers (nonreimbursed) and not VOE teachers (reimbursed).

5. From 1962-63 to 1976-77 school years, enrollments in courses and programs have increased substantially for both BE and VOE programs.

6. VOE teachers are better equipped than BE teachers with (a) facilities and equipment, (b) business and office machines, and (c) instructional materials and media.

Vocational Office Education Programs

7. A large percentage of the VOE teachers have met one or more of the State requirements for VOE certification.

8. A large percentage of the VOE teachers are using a traditional course approach rather than the block-time approach.

9. A large percentage of the VOE teachers did one or more of the following: (a) consulted school guidance counselors concerning the selection of students; (b) conducted periodic follow-up studies; and (c) placed students on jobs.

Business Education Programs

10. Over one half of the BE teachers meet the requirements of a Bachelor's degree and work experience needed for VOE certification; approximately one third meet the requirements of having completed the four required courses.

11. Even though BE teachers are not required to have follow-up and job placement services, 28 percent of the BE teachers conducted follow-up and 44 percent had job placement services; approximately two thirds consulted with the guidance counselors concerning the selection of students.

IV. RECOMMENDATIONS

In view of the findings and conclusions of this study, the following recommendations are made:

1. Some system of data collection reporting on business teachers should be available at the State department.

2. A list of appropriate instructional materials and media, facilities and equipment, business and office machines should be identified and/or developed, prioritized and disseminated to both BE and VOE teachers.

3. State and regional specialists should not only be aware of rules, regulations, and minimum standards but also disseminate this information to local directors, BE, and VOE teachers. They should also visit programs to insure that the rules, regulations and minimum standards are being met.

4. BE teachers should be afforded the same opportunities, privileges, and services as VOE teachers—teachers of students majoring in business should be considered as one group.

5. Additional research is needed in areas of the BE curriculum not analyzed in this study. Research is needed

(a) to determine the relative effectiveness of the blocked-time approach as compared with the traditional single-subject approach in preparing students for occupational competency;

(b) to determine the effect of varying degrees of instructional facilities, equipment, machines, and materials on the levels of student achievement in BE in the public senior high schools;

(c) to determine the effect of youth organizations in terms of what they contribute to student success on the job;

(d) to determine the effect of teacher work experience on student success on the job; also, effect on student achievement in class;

(e) to compare the instructional methods used by BE and VOE teachers; and

(f) to compare the graduates of BE and VOE programs in terms of their success on the job.

6. A status study should be made periodically in order that the trends in the development of BE may be determined and the findings implemented for the improvement of BE.

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APPENDICES

APPENDIX A

THE STATUS OF BUSINESS EDUCATION (VOE) IN THE

PUBLIC HIGH SCHOOLS OF TENNESSEE

TEACHER QUESTIONNAIRE

The information which you supply on this instrument is completely confidential. All results will be summarized by groups. Please respond to all questions which are appropriate to your school situation. Place your response(s) on the line provided or check the appropriate response(s).

I. Background Information

1. Which of the following degree(s) do you hold?
   a. 4-year baccalaureate a. _____
   b. Masters b. _____
   c. Educational specialist or 1 graduate course beyond Masters c. _____
   d. Doctorate d. _____
   e. Other: Please specify e. _____

2. Which of the following courses have you completed?
   a. Test and Measurement a. _____
   b. Methods and Materials of VOE b. _____
   c. Organization and Supervision of VOE c. _____
   d. Guidance d. _____

3. How many total years of BE teaching experience have you had?
   a. None a. _____
   b. 1-3 years b. _____
   c. 4-6 years c. _____
   d. 7 or more years d. _____

4. How many total years of VOE teaching experience have you had?
   a. None a. _____
   b. 1-2 years b. _____
   c. 3-4 years c. _____
   d. 5-6 years d. _____
   e. 7-8 years e. _____
   f. 9-10 years f. _____
   g. 11-12 years g. _____
   h. 13 or more years h. _____

5. How many total years of related business work experience have you had?
   a. None a. _____
   b. 1-2 years b. _____
   c. 3-4 years c. _____
   d. 5-6 years d. _____
   e. 7 or more years e. _____

6. Are you certified to teach VOE?
   a. Yes a. _____
   b. No b. _____

II. Youth Organization Information

7. Do you have an active VOE youth organization in your school?
   a. No (If no, continue to Section III.) a. _____
   b. Yes b. _____

8. How would you rate the importance of the youth organization in terms of individual benefits to the students?
   a. Very important a. _____
   b. Important b. _____
   c. Not important c. _____

9. Which of the following youth organizations are in your school?
   a. FBLA (Future Business Leaders of America) a. _____
   b. OEA (Office Education Association) b. _____
   c. TOEC (Tennessee Office Education Club) c. _____
   d. Other: Please specify d. _____

10. What is the VOE youth organization membership?
    a. 21 or less a. _____
    b. 26-50 b. _____
    c. 51-75 c. _____
    d. 76-100 d. _____
    e. 101 or more e. _____

11. Which of the following best describes the activities of the youth organization? (Mark as many as appropriate.)
    a. Outside speakers a. _____
    b. Field trips b. _____
    c. Regular meetings c. _____
    d. Regional, state or national contest d. _____
    e. Projects e. _____
    f. Others: Please specify f. _____

III. Guidance and Counseling Information

12. How many full-time guidance counselors does your school employ?

a. None	a. _____
b. 1	b. _____
c. 2	c. _____
d. 3	d. _____
e. 4	e. _____
f. 5 or more	f. _____

13. How many part-time guidance counselors does your school employ?

a. None	a. _____
b. 1	b. _____
c. 2	c. _____
d. 3	d. _____
e. 4 or more	e. _____

14. Does your department provide guidance counselors with information about your courses and programs?

a. No	a. _____
Yes—If, yes, what information is made available? (Mark as many as appropriate.)	
(1) Course descriptions	(1) _____
(2) Curriculum sequences	(2) _____
(3) Curriculum objectives	(3) _____
(4) Program objectives	(4) _____
(5) Other: Please specify	(5) _____

15. Do the guidance counselors confer with your department teachers concerning the selection of students for their specialty programs?

a. Yes	a. _____
No—If no, do you feel this practice would help to improve your programs?	
(1) Yes	(1) _____
(2) No	(2) _____

16. Does your department conduct periodic follow-up studies of graduates?

a. Yes	a. _____
b. No	b. _____

17. Does your department maintain a file on the follow-up of its graduates?

a. Yes	a. _____
b. No	b. _____

18. Does your department actively participate in the job placement of business graduates?
    a. Yes — a. _____
    b. No — b. _____

IV. Advisory Committee Information

19. Does your department have an advisory committee?
    a. No — a. _____
    b. Yes—If so, which of the following best describes meetings of the advisory committee?
        (1) has never met — (1) _____
        (2) met once last year — (2) _____
        (3) met once this year — (3) _____
        (4) met twice this year — (4) _____
        (5) met three or more times this year — (5) _____
        (6) plans to meet this year — (6) _____

V. Departmental Facilities and Equipment Information*

20. Are any classrooms in your department equipped with collapsible walls to facilitate grouping?
    a. Yes — a. _____
    b. No — b. _____

21. Does your department have one or more classrooms with multi-channel equipment (electronic shorthand laboratory, dial access equipment, etc.)?
    a. No — a. _____
    b. Yes—If so, how many?
        (1) 1 — (1) _____
        (2) 2 — (2) _____
        (3) 3 or more — (3) _____

22. How would you rate the adequacy of your facilities with reference to space and fixtures?
    a. Superior — a. _____
    b. Adequate — b. _____
    c. Somewhat adequate — c. _____
    d. Inadequate — d. _____

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*Total facilities and equipment used by ALL teachers.

23. How would you rate the adequacy of your school's departmental equipment which is used for classroom instruction?

a. Superior
b. Adequate
c. Somewhat adequate
d. Inadequate

a. _____
b. _____
c. _____
d. _____

24. Classroom Equipment Checklist

a. Please check how many of the following classroom equipment items are available for your departmental teachers.
b. For items available in your department, please rate the adequacy of this equipment.

	a Number Items In Use	b Adequacy Rating by Respondent Teacher		
		Adequate	Somewhat Adequate	Inadequate
Adjustable chairs (Typing) . .				
Adjustable demonstration stands				
Adjustable desks (Typing) . .				
Bookcases				
Bulletin Boards				
Chalkboards				
Copyholders (Typing)				
Filing cabinets				
Interval timers (Typing) . . .				
Model secretary's desks (VOE, COE, or Shorthand) .				
Office-size desks (VOE or COE)				
Office-size desks (Shorthand)				
Paper cutter				
Paper punch				
Sink				
Stopwatches				
Supply cabinets				
Tables (Bookkeeping)				
Tables (Shorthand)				
Other: Please specify				
_____				
_____				
_____				

25. Information Concerning Business and Office Machines

Machine checklist:

a. Please check how many of the following business and office machines are available for instructional use by your department.

b. For the machines available in your department, please rate the adequacy of this equipment.

	a	b Adequacy Rating by Respondent Teacher		
	Number Items In Use	Adequate	Somewhat Adequate	Inadequate
Addressograph				
Bookkeeping (posting) machine				
Cash register				
Copying machines (Thermofax, Xerox, etc.)				
Adding Machines				
Full keyboard				
Ten-key				
Calculators				
Electronic				
Key-driven				
Printing				
Rotary				
Dictation-transcription machines				
Duplicators				
Fluid				
Offset				
Stencil				
Mimeoscope				
Stenograph machines				
Typewriters				
Electric				
Manual				
Long-carriage				
Variable or proportional spacing				

	a Number Items In Use	b Adequacy Rating by Respondent Teacher		
		Adequate	Somewhat Adequate	Inadequate
Data processing equipment				
Accounting machines				
Collators				
Computers				
Key punch machines				
Interpreters				
Reproducers				
Sorters				
Verifiers				
Others: Please specify . . .				
_____				
_____				
_____				

26. Instructional Materials and Media Checklists

a. Please check whether or not the following materials and media are immediately available or readily accessible for instructional use by your department.

b. The instructional materials and media listed below may or may not be appropriate for your 1976-77 teaching assignment. Please respond by indicating whether you use the media Often, Sometimes, or Never in your current teaching.

	a Items On Hand		b Used by Respondent Teacher		
	Yes	No	Often	Sometimes	Never
Bulletin boards					
Chalk boards					
Computer assisted instruction . . .					
Filing sets					
Film projector (sound)					
Filmstrip projector (sound)					
Films					
Filmstrips					
Instructional tapes					
Micro projector					
Model secretary's desk (Demonstration model only) . . .					

	a Items On Hand		b Used by Respondent Teacher		
	Yes	No	Often	Sometimes	Never
Newspapers					
Opaque projector					
Overhead projector					
Overhead transparencies					
Commercial					
Teacher made					
Periodicals					
Practice sets					
Projection cart					
Projection screen					
Programmed textbooks					
Record player					
Records					
Reference books (dictionaries, office manuals, etc.)					
Simulation materials					
Apex					
Lester Hill					
Marathon					
Serendipity					
Other					
Skill builders					
Controlled reader					
Diatype analyzer					
Percetoscope					
Strong pacer					
Tachistoscope					
Other					
Slide projector					
Tape recorders					
Teaching machines					
Telephones					
Television closed circuit					
Textbooks					
Video tape equipment					
Wall charts					
Commercial					
Teacher made					
Workbooks					
Other: Please specify					
_____					
_____					
_____					

27. How would you rate the adequacy of your instructional materials and media in terms of your school's current educational objectives?

a. Superior	a. _____
b. Adequate	b. _____
c. Somewhat adequate	c. _____
d. Inadequate	d. _____

APPENDIX B

The University of Tennessee
COLLEGE OF EDUCATION
Knoxville 37916

Department of Vocational-Technical Education
Agricultural, Business, Distributive,
Home Economics and Industrial Education

February 21, 1977

Dear Principal:

Do you know what changes have occurred in business education since the passage of the 1963 Vocational Education Act? Specific answers to this question are not currently available for the state of Tennessee. Therefore, would you please assist in the compilation of data concerning the changes that have taken place since the passage of the 1963 Vocational Education Act by participating in my study. This data will assist the various people in Tennessee in appraising the changes that have taken place in business education programs.

In order to provide additional information, selected schools will be visited for a personal interview. Your school has been one of the few selected for this interview. May I have your permission to visit your school to talk briefly with you and one of your business teachers. I shall be seeking information on the utilization of federal funds; vocational certification of teachers; and the facilities, equipment, and instructional patterns in business education.

The interviews should involve no more than twenty minutes of your time and thirty minutes of the teacher's time. All information will be kept confidential, and no school or professional personnel will be identified by name in the report of the data.

Enclosed is a postal card to indicate your willingness to participate in this study and the name of the business teacher I would like to interview. Your cooperation will provide valuable information concerning the various facets of business education programs in Tennessee. A summary will be sent to you upon completion of the study.

Sincerely yours,

Delorise Creecy Barnes

(Mrs.) Delorise Creecy Barnes
Doctoral Candidate

Enclosure

Post Card

February 15, 1977

Please fill in the required information

_____ Yes, we will participate in your study of business education in the public high schools of Tennessee.

_____ No, we will not participate in your study.

I would like to interview _____

_____
Signed

_____
High School

The University of Tennessee
COLLEGE OF EDUCATION
Knoxville 37916

Department of Vocational-Technical Education
Agricultural, Business, Distributive,
Home Economics and Industrial Education

February 20, 1977

Dear VOE Teacher:

Do you know what changes have occurred in business education since the passage of the 1963 Vocational Education Act? Specific answers to this question are not currently available for the state of Tennessee. Therefore, would you please assist in the compilation of data concerning the changes that have taken place since the passage of the 1963 Vocational Education Act by completing the attached questionnaire. This data will assist the various people in Tennessee in appraising the changes that have taken place in business education programs.

I am seeking information on enrollments, courses, facilities, equipment, instructional materials, and teachers in selected schools. Your school is one of the few selected for this study. All information will be kept confidential, and no teacher or school will be identified by name in the report of the data.

A self-addressed stamped envelope is enclosed for you to return the questionnaire by March 10. Your cooperation will provide valuable information concerning the various facets of business education programs in Tennessee. A summary will be sent to you upon completion of the study.

Sincerely yours,

Delorise Creecy Barnes

(Mrs.) Delorise Creecy Barnes
Doctoral Candidate

Enclosures

The University of Tennessee
COLLEGE OF EDUCATION
Knoxville 37916

Department of Vocational-Technical Education
Agricultural, Business, Distributive,
Home Economics and Industrial Education

February 20, 1977

Dear Business Education Teacher:

Do you know what changes have occurred in business education since the passage of the 1963 Vocational Education Act? Specific answers to this question are not currently available for the state of Tennessee. Therefore, would you please assist in the compilation of data concerning the changes that have taken place since the passage of the 1963 Vocational Education Act by completing the attached questionnaire. This data will assist the various people in Tennessee in appraising the changes that have taken place in business education programs.

I am seeking information on enrollments, courses, facilities, equipment, instructional materials, and teachers in selected schools. Your school is one of the few selected for this study. All information will be kept confidential, and no teacher or school will be identified by name in the report of the data.

A self-addressed stamped envelope is enclosed for you to return the questionnaire by March 10. Your cooperation will provide valuable information concerning the various facets of business education programs in Tennessee. A summary will be sent to you upon completion of the study.

Sincerely yours,

Delorise Creecy Barnes

(Mrs.) Delorise Creecy Barnes
Doctoral Candidate

Enclosures

The University of Tennessee
COLLEGE OF EDUCATION
Knoxville 37916

Department of Vocational-Technical Education
Agricultural, Business, Distributive,
Home Economics and Industrial Education

LETTER OF ENDORSEMENT

With the endorsement of the Vocational-Technical Education Department of The University of Tennessee, this study is being conducted in an attempt to describe the changes that have taken place in business education since the passage of the 1963 Vocational Education Act. The study is being conducted by Delorise C. Barnes, doctoral candidate, under the direction of Dr. George W. Wiegers, Jr., Professor, U-T VTE Department.

Complete anonymity of individuals and schools has been guaranteed.

We endorse this study and urge each of you to complete the questionnaire and return it directly to Ms. Barnes.

Head, VTE

Committee Chairman

Business and Office Education

February 15, 1977

APPENDIX C

Table 29

ADEQUACY OF THE AVAILABLE CLASSROOM EQUIPMENT IN 183 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS AS INDICATED BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

Classroom Equipment	Adequacy Rating	Vocational Office Education N=81	Vocational Office Education %	Business Education N=102	Business Education %
Adjustable chairs (Typing)	Adequate	55	67.9	40	39.2
	Somewhat adequate	6	7.4	11	10.8
	Inadequate	6	7.4	19	18.6
Adjustable demonstration stands	Adequate	34	42.0	43	42.2
	Somewhat adequate	5	6.2	13	12.7
	Inadequate	15	18.5	16	15.7
Adjustable desks (Typing)	Adequate	34	42.0	42	41.2
	Somewhat adequate	4	4.9	11	10.8
	Inadequate	6	7.4	15	14.7
Bookcases	Adequate	45	55.6	52	51.0
	Somewhat adequate	14	17.3	22	21.6
	Inadequate	10	12.3	15	14.7
Bulletin boards	Adequate	54	66.7	87	85.3
	Somewhat adequate	8	9.9	11	10.8
	Inadequate	12	14.8	3	2.9
Chalkboards	Adequate	72	88.9	94	92.9
	Somewhat adequate	4	4.9	4	3.9
	Inadequate	3	3.7	4	3.9
Copyholders	Adequate	50	61.7	47	46.1
	Somewhat adequate	9	11.1	6	5.9
	Inadequate	11	13.6	17	16.7

Table 29 (continued)

Classroom Equipment	Adequacy Rating	Vocational Office Education N=81	%	Business Education N=102	%
Filing cabinets	Adequate	56	69.1	72	70.6
	Somewhat adequate	15	18.5	22	21.6
	Inadequate	7	8.6	6	5.9
Interval timers (Typing)	Adequate	56	69.1	74	72.5
	Somewhat adequate	12	14.8	13	12.7
	Inadequate	8	9.9	8	7.8
Model secretary's desks (VOE, COE or Shorthand)	Adequate	34	42.0	35	34.3
	Somewhat adequate	8	9.9	5	4.9
	Inadequate	9	11.1	9	8.8
Office-size desks (VOE or COE)	Adequate	35	43.2	27	26.5
	Somewhat adequate	5	6.2	3	2.9
	Inadequate	36	44.4	7	6.9
Office-size desks (Shorthand)	Adequate	12	14.8	14	13.7
	Somewhat adequate	1	1.2	2	2.0
	Inadequate	13	16.0	14	13.7
Paper cutter	Adequate	61	75.3	71	69.6
	Somewhat adequate	11	13.6	9	8.8
	Inadequate	3	3.7	8	7.8
Paper punch	Adequate	50	61.7	50	49.0
	Somewhat adequate	6	7.4	10	9.8
	Inadequate	8	9.9	7	6.9

Table 29 (continued)

Classroom Equipment	Adequacy Rating	Vocational Office Education N=81	%	Business Education N=102	%
Sink	Adequate	48	59.3	41	40.2
	Somewhat adequate	0	0.0	7	6.9
	Inadequate	17	21.0	18	17.6
Stopwatches	Adequate	64	79.0	75	73.5
	Somewhat adequate	5	6.2	15	14.7
	Inadequate	6	7.4	3	2.9
Supply cabinets	Adequate	52	64.2	63	61.7
	Somewhat adequate	14	17.3	14	13.7
	Inadequate	8	9.9	11	10.8
Tables (Bookkeeping)	Adequate	35	43.2	50	49.0
	Somewhat adequate	6	7.4	9	8.8
	Inadequate	6	7.4	12	11.8
Tables (Shorthand)	Adequate	22	27.2	22	21.6
	Somewhat adequate	5	6.2	12	11.8
	Inadequate	6	7.4	14	13.7

Table 30

ADEQUACY OF THE DIFFERENT BUSINESS AND OFFICE MACHINES AVAILABLE IN 183 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS AS INDICATED BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 1976-77

Business and Office Machines	Adequacy Rating	Vocational Office Education N=81	%	Business Education N=102	%
Addressograph	Adequate	0	0.0	2	2.0
	Somewhat adequate	2	2.5	2	2.0
	Inadequate	9	11.1	9	8.8
Bookkeeping (posting) machine	Adequate	1	1.2	6	5.9
	Somewhat adequate	3	3.7	2	2.0
	Inadequate	11	13.6	9	8.8
Cash register	Adequate	2	2.5	3	2.9
	Somewhat adequate	6	7.4	5	4.9
	Inadequate	8	9.9	10	9.8
Copying machine (Thermofax, Xerox, (etc.)	Adequate	42	51.9	31	30.4
	Somewhat adequate	19	23.5	14	13.7
	Inadequate	8	9.9	9	8.8
Full keyboard adding machines	Adequate	15	18.5	20	19.6
	Somewhat adequate	9	11.1	8	7.8
	Inadequate	7	8.6	8	7.8
Ten-key adding machines	Adequate	49	60.5	38	37.3
	Somewhat adequate	16	19.8	23	22.5
	Inadequate	16	19.8	7	6.9

Table 30 (continued)

Business and Office Machines	Adequacy Rating	Vocational Office Education N=81	%	Business Education N=102	%
Electronic calculators	Adequate	49	60.5	28	27.5
	Somewhat adequate	14	17.3	10	9.9
	Inadequate	9	11.1	10	9.9
Key-driven calculators	Adequate	7	8.6	6	5.9
	Somewhat adequate	1	1.2	5	4.9
	Inadequate	7	8.6	3	2.9
Printing calculators	Adequate	40	49.4	28	27.5
	Somewhat adequate	20	24.7	11	10.8
	Inadequate	10	12.3	8	7.8
Rotary calculators	Adequate	12	14.8	8	7.8
	Somewhat adequate	7	8.6	8	7.8
	Inadequate	6	7.4	5	4.9
Dictation-transcription machines	Adequate	51	63.0	30	29.4
	Somewhat adequate	14	17.3	13	12.7
	Inadequate	12	14.8	9	8.8
Fluid duplicators	Adequate	68	84.0	44	43.1
	Somewhat adequate	9	11.1	14	13.7
	Inadequate	4	4.9	11	10.8
Offset duplicators	Adequate	20	24.7	15	14.7
	Somewhat adequate	3	3.7	1	1.0
	Inadequate	4	4.9	11	10.8
Stencil duplicators	Adequate	64	79.0	39	38.2
	Somewhat adequate	8	9.9	13	12.7
	Inadequate	7	8.6	8	7.8

Table 30 (continued)

Business and Office Machines	Adequacy Rating	Vocational Office Education N=81	%	Business Education N=102	%
Mimeoscope	Adequate	49	60.5	32	31.4
	Somewhat adequate	9	11.1	8	7.8
	Inadequate	5	6.2	1	1.0
Stenograph machines	Adequate	11	13.6	4	3.9
	Somewhat adequate	3	3.7	1	1.0
	Inadequate	4	4.9	7	6.9
Electric typewriters	Adequate	59	72.8	55	53.9
	Somewhat adequate	16	19.8	19	18.6
	Inadequate	3	3.7	15	14.7
Manual typewriters	Adequate	23	28.4	48	47.1
	Somewhat adequate	8	9.9	22	21.6
	Inadequate	4	4.9	4	3.9
Long-carriage typewriters	Adequate	40	49.4	28	27.5
	Somewhat adequate	5	6.2	14	13.7
	Inadequate	4	4.9	9	8.8
Variable or proportional spacing typewriters	Adequate	47	58.0	18	17.6
	Somewhat adequate	7	8.6	3	2.9
	Inadequate	7	8.6	11	10.8
Data processing equipment: accounting machines	Adequate	1	1.2	3	2.9
	Somewhat adequate	0	0.0	0	0.0
	Inadequate	8	9.9	8	7.8

Table 30 (continued)

Business and Office Machines	Adequacy Rating	Vocational Office Education N=81	%	Business Education N=102	%
Collators	Adequate	16	19.8	2	2.0
	Somewhat adequate	2	2.5	0	0.0
	Inadequate	5	6.2	6	5.9
Computers	Adequate	1	1.2	1	1.0
	Somewhat adequate	1	1.2	1	1.0
	Inadequate	6	7.4	6	5.9
Keypunch machines	Adequate	6	7.4	6	5.9
	Somewhat adequate	4	4.9	3	2.9
	Inadequate	8	9.9	1	1.0
Interpreters	Adequate	1	1.2	1	1.0
	Somewhat adequate	0	0.0	0	0.0
	Inadequate	6	7.4	5	4.9
Reproducers	Adequate	2	2.5	1	1.0
	Somewhat adequate	0	0.0	0	0.0
	Inadequate	6	7.4	5	4.9
Sorters	Adequate	2	2.5	1	1.0
	Somewhat adequate	0	0.0	0	0.0
	Inadequate	6	7.4	5	4.9
Verifiers	Adequate	0	0.0	1	1.0
	Somewhat adequate	1	1.2	0	0.0
	Inadequate	6	7.4	5	4.9

Table 31

INSTRUCTIONAL MATERIALS AND MEDIA AVAILABLE FOR USE BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 183 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

Type of Instructional Materials or Media	Vocational Office Education		Business Education	
	N=81	%	N=102	%
Bulletin boards	75	92.6	101	99.0
Chalkboards	74	91.4	91	89.2
Computer assisted instruction	2	2.5	11	10.8
Filing sets	72	88.9	43	42.2
Film projector (sound)	70	86.4	82	80.4
Filmstrip projector (sound)	69	85.2	78	76.5
Films	45	55.6	59	57.8
Filmstrips	58	71.6	67	65.7
Instructional tapes	49	60.5	44	43.1
Micro projector	4	4.9	9	8.8
Model secretary's desk (demonstration model)	26	32.1	22	21.6
Newspapers	39	48.1	57	55.9
Opaque projector	35	43.2	61	59.8
Overhead projector	78	96.3	90	88.2
Overhead transparencies				
Commercial	51	63.0	54	52.9
Teacher made	66	81.5	71	69.6
Periodicals	63	77.8	62	60.8
Practice sets	81	100.0	79	77.5

Table 31 (continued)

Type of Instructional Materials or Media	Vocational Office Education N=81	%	Business Education N=102	%
Projection cart	46	56.8	52	51.0
Projection screen	61	75.3	68	66.7
Programmed textbooks	43	53.1	38	37.3
Record player	64	79.0	78	76.5
Records	61	75.3	67	65.7
Reference books (dictionaries, etc.)	77	95.1	88	86.3
Simulation materials				
Apex	4	4.9	7	6.9
Lester Hill	14	17.3	14	13.7
Marathon	2	2.5	3	2.9
Serendipity	40	49.4	14	13.7
Other	12	14.8	8	7.8
Skill builders				
Controlled reader	2	2.5	3	2.9
Diatype analyzer	4	4.9	3	2.9
Perceptoscope	—	0.0	2	2.0
Strong pacer	—	0.0	3	2.9
Tachistoscope	—	0.0	3	2.9
Other	—	0.0	2	2.0
Slide projector	34	42.0	32	31.4
Tape recorders	70	86.4	57	55.9
Teaching machines	7	8.6	8	7.8

Table 31 (continued)

Type of Instructional Materials or Media	Vocational Office Education N=81	%	Business Education N=102	%
Telephones	55	67.9	17	16.7
Television (closed circuit)	17	21.0	19	18.6
Textbooks	72	88.9	73	71.6
Video tape equipment	15	18.5	16	15.7
Wall charts				
Commercial	46	56.8	73	71.6
Teacher made	37	45.7	38	37.3
Workbooks	75	92.6	83	81.4
Other	5	6.2	8	7.8

Table 32

USE OF INSTRUCTIONAL MATERIALS AND MEDIA BY BUSINESS EDUCATION AND VOCATIONAL OFFICE EDUCATION TEACHERS IN 183 TENNESSEE PUBLIC SENIOR HIGH SCHOOLS IN 1976-77

Instructional Materials and Media		Vocational Office Education N=81	%	Business Education N=102	%
Bulletin boards	Often	64	79.0	79	77.5
	Sometimes	10	12.3	14	13.7
	Never	4	4.9	0	0.0
Chalkboards	Often	69	85.2	78	76.5
	Sometimes	6	7.4	8	7.8
	Never	0	0.0	1	1.0
Computer assisted instruction	Often	0	0.0	0	0.0
	Sometimes	2	2.5	4	3.9
	Never	8	9.9	12	11.8
Filing sets	Often	51	63.0	18	17.6
	Sometimes	14	17.3	15	14.7
	Never	1	1.2	9	8.8
Film (sound) projector	Often	8	9.9	11	10.8
	Sometimes	55	67.9	46	45.1
	Never	5	6.2	13	12.7
Filmstrip projector (sound)	Often	9	11.1	12	11.8
	Sometimes	50	61.7	47	46.1
	Never	5	6.2	12	11.8
Films	Often	5	6.2	11	10.8
	Sometimes	41	50.6	37	36.3
	Never	4	4.9	8	7.8

Table 32 (continued)

Instructional Materials and Media		Vocational Office Education N=81	%	Business Education N=102	%
Filmstrip	Often	5	6.2	14	13.7
	Sometimes	53	65.4	39	38.2
	Never	2	2.5	8	7.8
Instructional tapes	Often	26	32.1	14	13.7
	Sometimes	20	24.7	23	22.5
	Never	3	3.7	9	8.8
Micro projector	Often	1	1.2	1	1.0
	Sometimes	2	2.5	4	3.9
	Never	8	9.9	9	8.8
Model secretary's desk Demonstration model only	Often	15	18.5	6	5.9
	Sometimes	7	8.6	3	2.9
	Never	5	6.2	13	12.7
Newspapers	Often	6	7.4	9	8.8
	Sometimes	29	35.8	27	26.5
	Never	5	6.2	16	15.7
Opaque projector	Often	1	1.2	4	3.9
	Sometimes	23	28.4	31	30.4
	Never	12	14.8	20	19.6
Overhead projector	Often	31	38.3	26	25.5
	Sometimes	43	53.1	43	42.2
	Never	2	2.5	12	11.8
Overhead transparencies: Commercial	Often	16	19.8	9	8.8
	Sometimes	35	43.2	33	32.4
	Never	1	1.2	11	10.8

Table 32 (continued)

Instructional Materials and Media		Vocational Office Education N=81	%	Business Education N=102	%
Overhead transparencies: Teacher made	Often	27	33.3	22	21.6
	Sometimes	34	42.0	38	37.3
	Never	0	0.0	5	4.9
Periodicals	Often	18	22.2	18	17.6
	Sometimes	40	49.4	35	34.3
	Never	1	1.2	2	2.0
Practice sets	Often	64	79.0	48	47.1
	Sometimes	11	13.6	24	23.5
	Never	0	0.0	2	2.0
Projection cart	Often	10	12.3	13	12.7
	Sometimes	22	27.2	22	21.6
	Never	5	6.2	12	11.8
Projection screen	Often	18	22.2	19	18.6
	Sometimes	33	40.7	33	32.3
	Never	0	0.0	7	6.9
Programmed textbooks	Often	21	25.9	12	11.8
	Sometimes	16	19.8	14	13.7
	Never	4	4.9	10	9.8
Record player	Often	13	16.0	17	16.7
	Sometimes	38	46.9	47	46.1
	Never	7	8.6	10	9.8
Records	Often	15	18.5	17	16.7
	Sometimes	35	43.2	39	38.2
	Never	6	7.4	5	4.9

Table 32 (continued)

Instructional Materials and Media		Vocational Office Education N=81	%	Business Education N=102	%
Reference books	Often	66	81.5	67	65.7
	Sometimes	6	7.4	12	11.8
	Never	0	0.0	1	1.0
Similation materials: Apex	Often	2	2.5	1	1.0
	Sometimes	0	0.0	1	1.0
	Never	4	4.9	9	8.8
Lester Hill	Often	10	12.3	5	4.9
	Sometimes	2	2.5	4	3.9
	Never	6	7.4	10	9.8
Marathon	Often	0	0.0	0	0.0
	Sometimes	0	0.0	1	1.0
	Never	5	6.2	10	9.8
Serendipity	Often	20	24.7	4	3.9
	Sometimes	11	13.6	5	4.9
	Never	6	7.4	10	9.8
Skill builders: Controlled Reader	Often	0	0.0	0	0.0
	Sometimes	2	2.5	2	2.0
	Never	9	11.1	11	10.8
Diatype Analyzer	Often	0	0.0	1	1.0
	Sometimes	2	2.5	1	1.0
	Never	8	10.0	12	11.8
Percetoscope	Often	0	0.0	0	0.0
	Sometimes	0	0.0	1	1.0
	Never	8	9.9	11	10.8

Table 32 (continued)

Instructional Materials and Media		Vocational Office Education N=81	%	Business Education N=102	%
Strong pacer	Often	2	2.5	1	1.0
	Sometimes	0	0.0	1	1.0
	Never	8	9.9	10	9.8
Tachistoscope	Often	0	0.0	0	0.0
	Sometimes	0	0.0	2	2.0
	Never	8	9.9	11	10.8
Slide projector	Often	5	6.2	2	2.0
	Sometimes	20	24.7	21	20.6
	Never	9	11.1	6	5.9
Tape recorder	Often	22	27.2	16	15.7
	Sometimes	38	46.9	31	30.4
	Never	0	0.0	9	8.8
Teaching machines	Often	6	7.4	4	3.9
	Sometimes	3	3.7	1	1.0
	Never	8	9.9	9	8.8
Telephones	Often	31	38.3	5	4.9
	Sometimes	18	22.2	10	9.8
	Never	2	2.5	9	8.8
Television (closed circuit)	Often	6	7.4	7	6.9
	Sometimes	5	6.2	8	7.8
	Never	13	16.0	8	7.8
Textbooks	Often	55	78.9	59	57.8
	Sometimes	5	6.2	6	5.9
	Never	2	2.5	3	2.9

Table 32 (continued)

Instructional Materials and Media		Vocational Office Education N-81	%	Business Education N=102	%
Video tape equipment: Commercial	Often	5	6.2	3	2.9
	Sometimes	7	8.6	7	6.9
	Never	6	7.4	3	2.9
Teacher made	Often	13	16.0	25	24.5
	Sometimes	19	23.5	14	13.7
	Never	3	3.7	2	2.0
Wall charts	Often	19	23.5	46	45.1
	Sometimes	23	28.4	22	21.6
	Never	7	8.6	1	1.0
Workbooks	Often	56	69.1	69	67.6
	Sometimes	9	11.1	7	6.9
	Never	1	1.2	1	1.0

VITA

Delorise Creecy Barnes was born in Hertford, North Carolina, on April 2, 1947. She attended elementary school in that city and was graduated from D. F. Walker High School in Edenton in June 1965. The following September she entered Livingstone College, and in June 1969 she received a Bachelor of Science degree in Business Education. In the fall of 1969 she accepted a fellowship and teaching assistantship at the University of Tennessee, Knoxville, and began study toward a Master's degree in Business Education and Office Administration. This degree was awarded in August 1970.

After four years of teaching vocational office education, she was awarded an Education Professions Development Act Fellowship and attended the University of Tennessee again in 1975. She received the Doctor of Education degree with a major in Vocational Technical Education in December 1978.

The author is a member of the American Vocational Association, East Tennessee Education Association, Delta Pi Epsilon, National Business Education Association, and the National Secretaries Association. She is an assistant professor of business at Roane State Community College, Harriman, Tennessee.

Honors received by the author include: listings in the 1968-69 edition of Who's Who among Students in American Univeristies and Colleges; and in the 1976-77 edition of Personalities of the South, for which she was nominated by the Roane State Community College

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She is married to James Milton Barnes of Goldsboro, North Carolina, and has two sons, Victor and Timothy.