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A follow-up study of the business  
graduates of the classes of 1945, 1946,  
and 1947 of the Roger Ludlowe High  
School, Fairfield Connecticut

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The writer wishes to express her sincere appreciation to Professor Lester I. Sluder of Boston University, and to the administrators of Roger Ludlowe High School and to the members of its Business Department for the time and effort expended by them upon this follow-up study.

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BOSTON UNIVERSITY  
SCHOOL OF EDUCATION

Thesis

A FOLLOW-UP STUDY OF THE BUSINESS GRADUATES  
OF THE CLASSES OF 1945, 1946, AND 1947 OF THE  
ROGER LUDLOWE HIGH SCHOOL, FAIRFIELD, CONNECTICUT

Submitted by

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(B. S., Boston University, 1930)

In partial fulfillment of the requirements for  
the degree of Master of Education

1950

Boston University  
School of Education  
Library

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CHAPTER I  
INTRODUCTION

Statement of the Problem

The purpose of this study was to seek information from the business graduates of the classes of 1945, 1946, and 1947 of the Roger Ludlowe High School in Fairfield, Connecticut, to determine:

1. The extent to which Roger Ludlowe High School was meeting the vocational needs of the community and business in training the business graduates
2. The extent of specific employment standards or requirements in this area
3. The specific duties and skills most commonly required of Roger Ludlowe High School business graduates, and the extent to which these graduates felt prepared to meet them
4. The courses which the graduates felt were of the most, of some, and of little value as an evaluation of the present business curriculum and the subjects required in the business course
5. The improvement or changes necessary in the training of Roger Ludlowe High School business graduates as suggested by the respondents

Definition of Terms

The following terms as defined by Carter V. Good, Editor of the Dictionary of Education,<sup>1</sup> are listed here for the purpose of clarity.

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<sup>1</sup>Good, Carter V., Editor, Dictionary of Education, McGraw-Hill Book Company, Inc., New York, 1945.

Curriculum: a systematic group of courses or sequence of subjects required for graduation or certification in a major field of study.

Business Education: that area of education which develops skills, attitudes, and understandings essential for the successful direction of business relationships.

General Education: a broad type of education aimed at developing attitudes, abilities, and behavior considered desirable by society but not necessarily preparing the learner for specific types of vocational or avocational pursuits.

Graduate: a student who has successfully completed the twelfth grade and been awarded a diploma as testimony thereof.

The questionnaire was used as the instrument for gathering data with personal interviews or telephone calls substituted whenever possible. A questionnaire was organized on the basis of the information desired and sent out to the business graduates of the classes of 1945, 1946, and 1947 of Roger Ludlowe High School.

#### Justification

An evaluation study of Roger Ludlowe High School during the spring of 1948 indicated a need for a reevaluation of the curriculum offered in business education. The administrators are aware of the necessity of a dynamic and activated school curriculum adjusted to the needs of the pupils and of the community.

The following follow-up study of the business graduates of 1945, 1946, and 1947 of Roger Ludlowe High

School was motivated by an awareness that business education must be geared to present-day needs, and because, in these days of expanding school costs, and higher teacher salaries, more emphasis is put by the taxpayer on what his children are getting educationally in return for his tax dollar.

Although close cooperation has been maintained between the business education department of Roger Ludlowe High School and the business men, a direct approach to the high school business graduates should reveal the weaknesses and strengths of their high school business training when given practical usage in job experience in this area. A direct approach should also reveal what tests they had to take to secure jobs, if any, and what employment requirements there are in this community. From these graduates may be obtained effective suggestions for measuring, evaluating, and improving the teaching methods and business curriculum of Roger Ludlowe High School.

Marguerite Crumley<sup>2</sup>, Assistant State Supervisor of Commercial Education, State Department of Education, Richmond, Virginia, says:

Business training should be as flexible as business. It has to be constantly evaluated, improved, and revised. It is not static; it is

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<sup>2</sup>Crumley, Marguerite, "A Guide for Advisory Committees in Business Education," A reproduction of "A Manual of Procedures for Representative Advisory Committees in Commercial Education," The Balance Sheet, vol. 29, No. 8, April, 1948, p. 344.

dynamic. Because this is true, the business teacher has need for consulting with business men and employees in office occupations to keep the training program of the school in line with modern business methods and practice.

An effective teaching job can best be done, therefore, when the business teacher is aware of the specific skills, knowledge, work habits, and business procedures the business graduate needs to know to do his job successfully and to advance to a higher position. During the war years mediocre training of business graduates was necessarily accepted, but in today's competitive labor market, the high school graduate must be able to meet more rigorous job requirements than before.

By an organized survey of recent business graduates, the high school can learn of the success or failure of its students, and through an analysis of their experiences, redirect the training offered to its graduates if necessary.

A survey of high school business graduates should not focus attention upon job training to the exclusion of a broad general education and the development of the whole child as an integrated personality with other interests beyond those of vocational achievement. A follow-up study of high school graduates should strengthen good public relations and be a cooperative endeavor to aid the administrators and the faculty in evaluating the business curriculum and the business teaching. The improvement of education is a local matter, and a pooling of professional

and lay judgments and opinions will make it a cooperative endeavor that should benefit to the fullest those groups most directly concerned.

Chapter I gives a statement of the problem and its scope, a definition of terms, and the justification for this follow-up study. Chapter II presents the background of the study based on the town, the school, the Guidance Council, and the business curriculum. Chapter III contains a review of related research studies. Chapter IV lists the steps used in carrying out this study and in securing the data. Chapter V and VI are a compilation of the results of the follow-up study and a presentation of the data in table form with interpretation of the detailed results based on the questions asked. Chapter VI summarizes the results of the study on the same basis. Eighteen specific recommendations are given for improving the business curriculum at Roger Ludlowe High School.

## CHAPTER II

### BACKGROUND OF THE STUDY

#### Background of the Town

Fairfield is located on the southwestern coast of Connecticut on Long Island Sound. It is within five miles of the industrial city of Bridgeport where such firms as the Singer Sewing Machine Company, Remington Rand, Incorporated, General Electric Company, Aluminum Company of America, and the Dictaphone Corporation employ thousands in factory and office.

From a humble beginning of farming and shipbuilding, Fairfield has grown into a large residential town with an estimated population of 24,000. It covers an area of 32.1 square miles comprising at the present time Fairfield (Center), Southport, Greenfield Hill, and Stratfield. Land values have gone up in some areas to \$5000 an acre and many beautiful homes have been built. Several large manufacturing firms and industries have developed in Fairfield, and they are confined to districts by 26 zoning restrictions.

#### The School

It was not until 1914, however, that Fairfield had its own high school. During that year foresighted citizens

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suggested that the money formerly used to transport the town's students to nearby high schools, plus a sum granted by the town, be used to open a high school.

In the summer of 1917 Miss Annie B. Jennings gave to Fairfield six acres of land and a large house to be used for high school purposes. In 1925 the town built a modern building on the old site which is used today with the addition of two new wings. In September of 1948, Roger Ludlowe High School accommodated approximately 1000 students and a faculty of 60 teachers.

#### The Guidance Council

Roger Ludlowe High School has a full-time guidance director and one of its most distinctive features is its Guidance Council. This Guidance Council was organized in 1933 by several members of the faculty who had had experience or courses in guidance. Every student is assigned to one of these guidance counselors to whom he can go for assistance regarding his school program or personal problems. The counselors not only confer with their counselees individually and in groups but also work on special projects such as vocational interest and aptitude testing and placement. Counselors are eager to do everything within their power to make every student's career as successful as possible. Appointments may be

made by parents to confer with their son's or daughter's counselor.

### The Business Curriculum

The business curriculum attempts to provide the student with a background of general education and with a broad general knowledge of business, so that with this knowledge the student may think and act effectively and efficiently as a consumer and as a citizen. Business education also provides the student with marketable skills and offers him a chance to specialize in order to meet his interests, aptitudes, and vocational needs as well as the needs of his community.

The business education curriculum at Roger Ludlowe High School offers three courses: clerical, general, and secretarial. The first two years of the business curriculum are offered as try-out and general education courses. The last two years the business student is asked to specialize. The required courses for Grade 9 in the Clerical Business Course are: English I, junior business training (1 semester), and general mathematics. Two electives may be chosen from: World history, current problems, general science, art (1), home economics, mechanical drawing (1), and industrial arts.

The Secretarial Business Course requires in Grade 9: English I, general mathematics I, junior business

training (1 semester), and one choice from either world history or current problems. Another elective may be chosen from art (1), mechanical drawing (1), home economics I, general science, or industrial arts.

During Grade 10 all business education students are required to take: English II, consumer goods (1), retailing (1), and typewriting I. Consumer goods and retailing are required as it was thought they offered a background of basic business knowledge from the viewpoint of both the consumer and the business man. These courses should encourage effective thinking on the part of the student in relation to wise buying and the worthwhile values of life. They also offer training in retailing and present the problems of the merchant.

Grade 10 allows the business student a variety of electives. Guidance counselors encourage the student to continue in any subject that interests him and to include in his program subjects that will broaden his knowledge and general education. The business students in Grade 10 may choose electives from any of the languages, sciences, social sciences, mathematics, home economics, industrial arts, music or art courses that are open to Grade 10 students.

In Grade 11 the business student may choose whether he wishes to take the secretarial, general, or clerical course.

The Clerical Business Course. The Clerical Business Course is offered to those students who have had success in mathematics or introductory record keeping in junior business training, and yet who have had difficulty in English or spelling. The subjects required are: English III, typewriting II, bookkeeping I, clerical practice I, and United States History. Subjects may be chosen from any of the electives offered to Grade 11 students.

Grade 12 requires: English IV, commercial law (1 semester), economics, (1 semester), United States History if not taken previously, and clerical practice II. Clerical practice II for this group will include advanced bookkeeping which will be omitted for the general business students taking clerical practice II. Students may choose electives to complete their programs from any of the subjects offered to Grade 12.

The General Business Course. The General Business Course is offered for those students who have had difficulty in arithmetic, English, and spelling, and who can expect only failure in attempting shorthand and bookkeeping. The General Business Course is offered to assure success to the student as a general office worker with specialization in the clerical skills such as typewriting, filing, and office machines. The required courses for those students taking the General Business Course in Grade 11 are: English III, United States History,

clerical practice I, and a choice from the electives offered to Grade 11 students.

In Grade 12, the required subjects for the students in this course are: English IV, problems of American democracy, and clerical practice II. This course offers two years of clerical practice so that a student may have an opportunity to specialize on any office machine that he is interested in. Introducing clerical practice during Grade 11 should provide more time for each student to acquire skill and proficiency on office machines and to specialize on any one that he might have ability to use proficiently in Grade 12.

The electives may be chosen from the field of language, mathematics, music, science, social studies, industrial arts, home economics or art.

The Secretarial Business Course. The Secretarial Business Course requires these subjects in Grade 11: English III, bookkeeping I, typewriting II, shorthand I, and United States History in either Grade 11 or 12. Students who have done above average work in English and receive a grade of B or better are encouraged to take this course. A good grade in typewriting is also expected of students who choose the Secretarial Course. Electives may be chosen from any of those subjects open to Grade 11 students; and again the counselors advise their counselees to take subjects outside their field to broaden their general

knowledge and interests.

Grade 12 requires that the secretarial students take: English IV, commercial law (1 semester), economics (1 semester), United States History (if not previously taken), and secretarial office practice which will include advanced shorthand, transcription, office machines, and office procedure. This course also includes a review unit in bookkeeping I.

Requirements for promotion and graduation. Each student carries at least four two-point subjects each year. Some may carry an extra one-point subject. Permission to carry a fifth subject is granted. In order to be promoted to the next class the following number of points are required: sophomores, 6; juniors, 14; and seniors, 22.

A diploma is granted to students who have completed four years of English, the course in United States History, one year of mathematics, one year of science, and four years of physical education (unless excused by a doctor). In addition, the specific requirements of the course in which the student is registered must be completed.

Mr. Daniel Fitts, former Head of the Business Education Department at Roger Ludlowe High School, kept a placement file of the positions filled by the business graduates. He maintained close contact with the business men of the community who were able to offer job openings to the business graduates. During the years of 1947 and 1948

there was a greater demand for Roger Ludlowe business graduates than could be met. This was undoubtedly due to the fact that during times of prosperity many more parents had expectations of sending their children on to college and thus the enrollment in the business department continued to drop during the past five years in proportion to the total high school enrollment.

The present Head of the Business Education Department of Roger Ludlowe High School is continuing the policy of maintaining close contact with the business men and in placing the business graduates in full-time jobs, and the business students in part-time jobs whenever possible.

## CHAPTER III

### REVIEW OF RELATED RESEARCH STUDIES

In wide reading of similar follow-up studies of business high school graduates and of related literature, many problems appeared that were common to all high schools in their training of these students. Some problems were local or common only to large cities, and others were common only to the smaller high school. However, several problems that Roger Ludlowe High School has in common with other high schools in the training of its business graduates will be discussed at length as several solutions were offered by writers in the field of business education.

The authors<sup>1</sup> of Prognosis, Guidance and Placement in Business Education found, in many recent studies, that the problems of high school business education might be grouped under five main headings. They state:

. . . the secondary schools of today, accepting the challenge of planning an adequate business guidance program, must consider the following five basic problems as being common to nearly all schools. They are as follows:

1. Peak enrollment.
2. Business office dissatisfaction with high school product.
3. Changing employment trends as a result of new regulations.
4. Provision of varied curriculum for low-ability students.
5. Using the business department as a "dumping ground."

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<sup>1</sup>Dame, J. Frank, Brinkman, Albert R., and Weaver, Wilbur E., Prognosis, Guidance and Placement in Business Education, South-Western Publishing Company, New York, 1944, p. 23.

In any discussion of business office dissatisfaction with the high-school product, a reference to a nation-wide survey of business men relative to the employability of high school business graduates made by Carlson<sup>2</sup> should be given. She states:

In the opinion of 60 business men throughout the United States, most of our high schools gave quite adequate training in the basic skills of shorthand, typewriting, and Office Practice. However, the majority of these employers hastened to add that, although a stenographer knew her shorthand outlines without hesitation and could take dictation rapidly enough, she was often poor at transcribing her notes into sensible letters. In the next breath they would add that her shorthand was probably not so much at fault as her lack of other fundamentals, especially English word usage and spelling.

One of the greatest weaknesses in our secondary school teaching, according to these business men, lies in the fundamentals of English, spelling, arithmetic, and in general education background.

Lack of mastery of the three "R's" is not peculiar to any one area or community but is apparently nationwide. The authors<sup>3</sup> of Prognosis, Guidance and Placement in Business Education make the following suggestions for a more thorough teaching of the fundamentals.

. . . Three of the more common deficiencies of graduates placed in business, as noted in many surveys, are arithmetic, spelling, and penmanship. All three are definite requisites in business and should be

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<sup>2</sup>Carlson, Gunhild A., Reactions of Selected (60) Business Men Relative to the Employability of High School Business Course Graduates, Master's Thesis, Boston University, 1946, pp. 34-35.

<sup>3</sup>Dame, Erinkman, and Weaver, op. cit. p. 24.

stressed in the commercial curriculum. As suggested later in regard to penmanship, definite standards of achievement should be set up and should be adhered to as rigidly as possible for all three. For example, training in the fundamentals of arithmetic should not stop with the freshman year. Certain subjects throughout the following three years should have provision made in them for remedial drill in simple computation. The placing of constant emphasis on all three of these difficulties according to some well-thought-out plan will secure definite results.

Tonne's<sup>4</sup> editorial in the Journal of Business Education states specifically what he believes business men, as represented by the National Office Management Association, can do and must do if they are going to be a real help to the schools. It is given in outline form as delivered by Oakah L. Jones<sup>5</sup> at the National Business Teachers Association Convention, Chicago, December 27, 1947.

1. Set up real job standards in their own offices.
2. Stop talking in terms of generalities.
3. Make job breakdowns of your most usual office tasks.
4. When you hire a worker, find out what his school record is.
5. Set up real job-training programs in your own office.
6. Stop criticizing and show teachers specifically what is required of your employees--list the specific facts of where the beginning workers are failures and then go to the teachers with these specifics.

The greatest complaint, however, that business men have of the high school business product is in lack of character

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<sup>4</sup>Tonne, Herbert A., Editorial, Journal of Business Education, vol. 1:7, April 1947, p. 7.

<sup>5</sup>Jones, Oakah L., American Business Education, vol. 3, March 1947, p. 172.

and personality traits. Becker<sup>6</sup>, who made a study of business employees, says:

A recent study of four thousand discharge cases in seventy-six companies revealed that eighty-seven per cent of the discharges resulted from lack of character traits. Lack of specific skill accounted for only about ten per cent. These figures indicate that people do not lose their positions for inability so much as they do because of the wrong attitudes.

Carlson's<sup>7</sup> findings were similar to those of Becker's for she states:

Research studies show that 85 per cent of those who lose their jobs, lose them because of the inability of the worker to adapt himself to his working and economic environment. The most generous estimate given in any study of the reason why people get and keep jobs allows us 35 per cent on skill. Recognizing this fact should not decrease the teachers' efforts in developing skills, but should make them vitally concerned of the necessity to improve the personal-characteristics factor in teaching high school business students.

Hunt<sup>8</sup> gives some suggestions for improving character traits in a study he made. To find out what deficiencies existed among high school business graduates, facts concerning involuntary termination of employment and characteristics necessary for success were determined by questionnaires and personal interviews with business men of leading concerns. Facts were tabulated and analyzed

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<sup>6</sup>Becker, Esther R., Secretaries Who Succeed, Harper and Brothers, New York, 1947, p. 1.

<sup>7</sup>Carlson, op. cit. p. 46.

<sup>8</sup>Hunt, H. Chandler, The Opportunity for Character Education through the Teaching of Commercial Subjects, Master's Thesis, Boston University, 1932, pp. 62-64.

with the idea in mind that, knowing definitely the deficiencies common among office workers, it might be possible to set up some concrete suggestions for the correction of existing faults. Several of his suggestions are as follows:

Any vocational subject which is taught under conditions comparable with those actually experienced on the job offers the best opportunity for developing habits of promptness, cooperation, honesty, carefulness, concentration, etc.

The individual teacher can materially assist by exemplifying those desirable qualities. She can assist by discussions within her classes and she must plan her work so that situations are present when it will be possible for each pupil to appreciate his responsibility of usefulness, or social living.

The task of the guidance and business department in directing students into the business curriculum and into the business course best suited to their ability is a major problem. Providing courses for the low-ability group is also a major concern to all high school administrators.

Aptitude, intelligence, and interests tests are used by the guidance department in recommending to the students and their parents which courses are advisable. Neither intelligence tests or marks alone should be relied upon entirely, as Forrester<sup>9</sup> warns in the following paragraph:

Each test score or observation must be considered as representing only one small part

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<sup>9</sup>Forrester, Gertrude, Methods of Vocational Guidance, D. C. Heath and Company, Boston, 1944, p. 311.

of the individual's total aptitudes, accomplishments, or personality traits and must not be regarded as a final appraisal. One must constantly look for supplementary evidence to use with the test data.

Many high school business departments offer various business courses such as: clerical, general, and secretarial. In this way the secretarial course is not the only choice, and students<sup>10</sup> of occupational trends state that clerical jobs far outnumber secretarial ones.

Under these circumstances it is reasonable to anticipate that the number of clerks of the semi-skilled, machine-operator type will continue to increase more rapidly than the rate of growth of all gainful workers.

As indicated by these findings, business education would meet the occupational demands of the times if more students of low ability were encouraged to take the general business and clerical business curriculum.

According to Potter,<sup>11</sup> who made an extensive analysis of the work of general clerical employees in large companies, the work of even general office workers is specialized. She says:

The work of the general clerical employee in large businesses is specialized, one person performing one task much as the worker on the assembly line in industry. However, the work done in jobs falling under the general clerical classification has many skills in common.

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<sup>10</sup>Anderson, H. Dewey, and Davidson, P. E., Occupational Trends in the United States, Stanford University Press, Stanford University, 1940, p. 585.

<sup>11</sup>Potter, Thelma M., An Analysis of the Work of General Clerical Employees, Contributions to Education, No. 903, Bureau of Publications, Teachers College, Columbia University, 1944, pp. 73-75.

Over 85 per cent of the work of beginning general clerical employees in large businesses involves the skills of typewriting, filing, and such non-specialized clerical work as classifying and sorting or checking names and numbers for accuracy.

Potter<sup>12</sup> offers specific recommendations for the training of these non-specialized clerical workers:

Secondary school training programs for general clerical personnel should include the development of high degrees of accomplishment in the types of work which are common to non-specialized activities. In this study these skills have been identified as organization of materials for economy of physical motion, finger dexterity, rapid reading for comparison of name or numbers and judgment concerning the classification of materials.

The core of the general clerical training program in secondary schools should be the development of skills in typewriting, filing, non-specialized clerical work, and simple adding-machine operation.

A summarization of the suggestions for the improvement of the training of business students shows the need for more prognostic testing and guidance in directing students into the business curriculum and into the business course best suited to their ability and interest. The need for continual drill on the fundamental processes of reading, writing, spelling, and arithmetic is also evident, as well as the need for a broader general education background. There is further need for training of non-specialized clerical workers in the definite duties that they will be called upon to perform.

One of the outstanding requirements in training business

<sup>12</sup>Op. cit. p. 6

students today, however, is the necessity for improving the personal-characteristic factor. There is also apparent need for closer contact between the school and business to better meet the occupational demands of the times and to improve the vocational information given out to business graduates.

## CHAPTER IV

### METHODS OF PROCEDURE

The following steps were taken in carrying out the follow-up study of the business graduates of the classes of 1945, 1946, and 1947 of the Roger Ludlowe High School in Fairfield, Connecticut.

1. A review of writing by authorities in the field of business education was made, and a study of similar surveys and follow-up studies was carried out to obtain a background for this study.
2. Permission to carry out this study was obtained from the administrators of Roger Ludlowe High School.
3. Conferences were held with representative business graduates to be surveyed to determine the questions that they thought should be included in a follow-up study of business graduates. Consultations were also held with the faculty and the administrators of the Roger Ludlowe High School.
4. The desired data were organized into a rough draft of questions which were revised and corrected with the advice and approval of the administrators of the Roger Ludlowe High School.
5. As a try-out, questionnaires were sent to 15 graduates and their suggestions for improvement were requested.
6. The final corrected questionnaire with accompanying form letters and self-addressed envelopes was then sent to the remainder of the business graduates to be surveyed.
7. Publicity was received in the local newspaper to obtain a greater response to the second lot of questionnaires which were sent to those who had failed to respond to the first.

8. Telephone calls were made to obtain delayed questionnaires.
9. The data from the returned questionnaires were tabulated and analyzed.
10. The summary and conclusions, based upon the data obtained, were formulated.
11. Recommendations were made for the improvement of the curriculum on the basis of the findings of the study under discussion.

A review of the writing by authorities in the field of business education was made, and the aims and objectives of business education as established by such writers as Lomax, Nichols, Tonne, and Salsgiver were studied. Their suggestions for attaining the aims and objectives of business education were noted.

After reading and analyzing many similar surveys and follow-up studies of high school business graduates, the mailed questionnaire was considered to be the most practical approach for reaching all the business graduates of the classes of 1945, 1946, and 1947 of Roger Ludlowe High School. Related reading was done to determine the criteria of a good questionnaire and to determine what reliability might be placed on the answers.

Leonard V. Koos<sup>1</sup>, in his book, The Questionnaire in Education, has this to say in regard to criteria for

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<sup>1</sup>Koos, Leonard V., The Questionnaire in Education, MacMillan, New York, 1928, p. 174.

judging the questionnaire:

After experimenting at different stages of this inquiry with a variety of criteria it is the belief of the present writer that two he has hit upon will serve as well as any others that have occurred to him. These are (1) ability and (2) willingness, that is ability and willingness of the persons approached to make reliable answers.

It is not to be understood that these criteria are offered as substitutes for genuine efforts at validation of data after they have been gathered. They are suggested only as working criteria to be applied to questions and questionnaires prior to sending them out and as a temporary basis of judgment awaiting final validation.

It should be apparent without argument that application of the criteria is facilitated by a division of the questionnaires as calling for (1) fact (2) opinion or (3) both fact and opinion.

Validation of the data after they have been gathered is, of course, the only acceptable final criterion. Validation--checking answers of graduates against answers of their employers, or a check by personal interviews.

Several former business graduates of Roger Ludlowe High School who had had a variety of work experience were questioned as to their on-the-job experiences. The business graduates consulted were asked for their opinions and suggestions as to the questions that they thought should be included in a follow-up study of business graduates. The duties that they performed most often, and the office machines that they had used in the offices in the Fairfield-Bridgeport area were noted.

A conference was held with the faculty members of the business education department of Roger Ludlowe High School

for the purpose of planning a questionnaire. The group discussed specific facts which should be obtained from the business graduates in order to evaluate their training in relation to their work experience. The facts and information desired were listed after a study had been made of the opinions and suggestions offered by the business graduates.

Individual conferences were held with the principal, the vice-principal, and the guidance counselor in order to obtain their opinions as to the facts that should be established. The facts to be established and the questions to be asked in the follow-up study, as suggested by the administrators, were incorporated with the tentative questions, suggestions, and opinions obtained from the business graduates and the faculty members of the business department of Roger Ludlowe High School.

A rough draft of questions was worked out, and they were judged by the criteria suggested by Koos.<sup>2</sup> In conference with the head of the business department of Roger Ludlowe High School, the questions to be asked in the business graduate follow-up study were next refined.

The revised questionnaire was then given to the principal, vice-principal, and the guidance counselor of Roger Ludlowe High School for their final suggestions,

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<sup>2</sup>Ibid, p. 174

corrections, and approval.

The test questionnaires were sent to 15 graduates, five from each class who had brothers and sisters enrolled at Roger Ludlowe High School. The younger brothers and sisters were given the responsibility of delivering the questionnaires, having them filled out, and returning them. Graduates were requested to note the time required to fill out the questionnaires and to mark any questions that were not clear. Suggestions for improving the questionnaires were also requested. Each one of the 15 questionnaires delivered by the high school pupils were filled out and returned.

As no suggestions for improving the questions were given, sufficient copies were mimeographed for all the graduates to be surveyed. Individually typed form letters, approved by the administrators, and stamped, self-addressed envelopes were also included in the mailed questionnaires.

Publicity was given to the survey under discussion by the local newspaper, and following this publicity, a second form letter was written, approved by the administrators, individually typed, and included with the second lot of questionnaires sent out to the business graduates who had not yet responded.

As many as possible of the business graduates who had not answered were contacted by telephone in an appeal to have them fill in and return the second lot of questionnaires

mailed out to them.

Telephone conversations were also held with business graduates to clarify suggestions made by them and to more definitely determine wherein they felt the high school business training might be improved.

The data from the returned questionnaires were tabulated and analyzed in Chapter V.

In Chapter VI, the summary and conclusions, based upon the data obtained, were formulated. Recommendations were then made for the improvement of the curriculum on the basis of the findings of the study under discussion.

## CHAPTER V

### ANALYSIS AND INTERPRETATION OF DATA

The data of the survey have been compiled and interpreted on the basis of the questions asked.

All items reported were first checked, a preliminary summarization was made, and detailed findings were later compiled. The data were interpreted in the light of the purpose of the survey.

As was stated, the initial response to the questionnaire was 23 out of 50 business graduates in the class of 1945, 19 out of 57 business graduates in the class of 1946, and 15 out of 32 business graduates in the class of 1947. Approximately 41 per cent of the business graduates interviewed answered the first questionnaire.

The final results were more gratifying as shown in Table I. As the highest percentage of answers received was from the last graduating class, interest in high school activity and response to the questionnaire appears to be in direct ratio to the length of time the students had been graduated. In 1945, only 60 per cent of the business graduates responded; in 1946, approximately 75.4 per cent responded or a little more than 15 per cent of those who answered from the previous year, and in 1947, there were 29 who responded or 90.6 per cent. This was approximately 30 per cent more than answered in 1945.

TABLE I

NUMBER AND PER CENT OF REPLIES RECEIVED  
ARRANGED BY CLASSES

Year	Forms sent		TOTAL	Answered		TOTAL	Per-centage
	Girls	Boys		Girls	Boys		
1945	46	4	50	27	3	30	60%
1946	54	3	57	40	3	43	75.4%
1947	32		32	29		29	90.6%
TOTAL	132	7	139	96	6	102	73.4%

Every graduate signed his name to the questionnaire although the accompanying form letter stated that it was optional.

In response to question 1, Table II reveals that 75 girls and 8 boys were still single, that 18 girls and 1 boy have married, and that 4 boys were veterans.

TABLE II

## PRESENT STATUS OF GRADUATES

	Single		Married		Widowed		Veterans	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
1945	18	3	9	0	0	0	0	3
1946	33	2	7	1	0	0	0	1
1947	24	3	2	0	0	0	0	0
TOTAL	75	8	18	1	0	0	0	4

Out of the total number of business graduates interviewed, 12 of the married girls were at home, four were at school, one boy was unemployed, and 85 graduates were working full time. The boy who at the time of the study was unemployed had worked as a factory employee and had been laid off at the time of this study.

TABLE III

## WHAT GRADUATES ARE DOING AT THE PRESENT TIME

	1945		1946		1947		Total
	Girls	Boys	Girls	Boys	Girls	Boys	
Working full time	20	1	36	3	25	0	85
At home	6		4		2		12
Going to school		2			2		4
Not working		1					1
Working part time							0
In U.S. Armed Forces							0
TOTALS	26	4	40	3	29	0	102

Two of the boys who were veterans had availed themselves of the G. I. Bill of Rights and were going to the state university under its educational provisions. The business course offered at Roger Ludlowe High School appeared sufficient for these two graduates to enter college as their marks, returned to the high school, showed.

According to the 1940 census, 49 per cent of the workers in Connecticut were employed in the trades and

industries while less than 18 per cent were classified as clerical. The Bridgeport area is primarily an industrial one, and latest available figures listed 175 industrial plants employing 10 or more people. Of the industrial plants, General Electric was the largest, employing over 8,500 workers. Bridgeport Brass employed over 4,000, Remington Arms over 3,000, Singer Sewing Machine over 2,000, Raybestos over 1,000, (12 per cent as office workers), Bullards over 1,000 (20 per cent as office workers), and Casco Products about 1,000. Of the other industrial plants in this area, 90 per cent employed less than 500 persons.

The larger department stores employed an average of approximately 400 persons, and the two newspapers employed between them about 375 persons. The First National Bank and Trust Company employed about 200, and the Bridgeport City Trust Company employed about 150. At the other side of the employment situation were the 5,000 places of business in which only one or two persons were employed. Table IV lists firms employing Roger Ludlowe business graduates.

The largest percentage of Roger Ludlowe business graduates, 49 per cent, was employed by the larger manufacturing companies as Table V shows. Of these, 47 were employed as office workers, and two were in the

FIRMS EMPLOYING ROGER LUDLOWE BUSINESS  
GRADUATES OF 1945, 1946, AND 1947

Firms	1945	1946	1947	Total
Attorney		1		1
Aetna Insurance Company			1	1
American Chain & Cable Company		1		1
Associates Discount Corporation			1	1
Assurance Society		1		1
Bead Chain Company		1		1
Bridgeport Fabrics, Inc.		2		2
Bruner-Ritter, Inc.			1	1
Bryant Electric Company	2	2	1	5
Bullard Company	1			1
Clark Metal Products		1		1
C. R. & L. Transportation Company	2			2
Cochrane Chevrolet Company	1			1
Community Chest and Council	1			1
Connecticut Hospital Insurance		1		1
Cotter, Freedman & Capossela (Lawyers)			1	1
Daley, John F. (Food Distributor)	1			1
Dictaphone Corporation	2	3	2	7
Dolan Steel Company (mfr.)	1			1
DuPont, E. I., DeNemours & Co.	2			2
Employer's Liability Assurance Company		1		1
Eversharp, Incorporated		1		1
Fairfield Town of		1	1	2
Board of Education	1	1		2
Fairfield Lumber Company		1		1
First National Bank		1	2	3
General Electric Company		3	2	5
Glass Machinery Company			1	1
Hartford Accident Company			1	1
Hoffman Fuel Company		1		1
Home Comforts Inc. (Bldg.)		1		1
Howland Dry Goods Company		2		2
Jelliff, C. O. Company			1	1
Kamerling's Beauty Shop			1	1
Kidder, Am. M. & Company	1			1
Kilborn Sauer Company			1	1
Kish Real Estate	1	1		2
Liberty Mutual Insurance Company		1		1
Lucas, S. L. & Son, Inc.		1	1	2
Lynch & Company (Plumbing & Heating)			1	1
Manning, Maxwell & Moore	1	2	1	4
Maxams Machine Company	1			1
Mercurio, Inc.	1			1
Metropolitan Life Insurance Company	2	1	1	4
Total	21	32	21	76

TABLE IV  
(Continued)

FIRMS EMPLOYING ROGER LUDLOWE BUSINESS  
GRADUATES OF 1945, 1946, AND 1947

(continued)

Firms	1945	1946	1947	Total
McKesson & Robbins	2	2		4
Miles Shoes, Inc.			1	1
Musante, Berman, Steinberg Co., Inc.	1			1
Park City Supply Company			1	1
Peck's, Ronnie Beauty Salon	1			1
Prudential Insurance Company			1	1
Radar Industries	1			1
Remington Rand (Electric Shaver Div.)	2	1		3
Rockwell, W. S. Company	1			1
Rolock Company		2		2
Sears, Roebuck & Company		1		1
Schwerdtle Stamp Company			1	1
Southern New England Telephone Co.	1			1
Stratfield Hotel, Inc.		1		1
Traveler's Insurance Company		1		1
Trustors Mortgage Company		1		1
Underwood Corporation Manufacturing Co.			1	1
United Aircraft		1		1
University of Bridgeport			1	1
Wade's Dairy		2		2
Includes summer employment of 2 still in college of class of 1945 and of class of 1947				
Total	30	44	27	101

factory, one as an inspector and one as a factory worker. Life insurance companies employed 11 per cent, the next largest percentage. Continuing down the list there was a distinct drop to 4 per cent of the types of businesses employing Roger Ludlowe business graduates. Drug distributors and manufacturers, as distinct from machinery manufacturers, used 4 per cent of the business graduates; the town of Fairfield also used four business graduates as clerks, and retail clothing concerns used a like percentage. Banks used three graduates or 3 per cent, and the remaining 26 graduates were employed by 18 different types of concerns, ranging from law offices to wholesale food distributors.

A careful analysis was made of the exact duties performed by the business graduates in relation to the type of position listed as held by them so that their positions could be more accurately classified for future reference. The cost secretary, credit investigator, sales correspondent, receptionist, and different machine operators were listed separately to show specifically the exact type of positions now held by Roger Ludlowe business graduates.

The fact that approximately 33 per cent of the business graduates of Roger Ludlowe were employed as general clerical workers justifies the offering of two courses in general

business. Table VI shows that only 10 per cent of the business graduates of this high school were employed in secretarial positions which indicates that training more students in shorthand than is needed in the local labor market is wasted training although admittedly shorthand is a useful skill and often a stepping stone to advancement. However, as this area manufactures dictaphones and as the larger offices do use them extensively, shorthand is seldom a required skill except in the smaller office.

The administration is justified, therefore, in view of the fewer numbers of business graduates employed as secretaries, to place restrictions upon enrollment in shorthand.

An analysis of individual questionnaires revealed that, although the majority of business graduates began as general clerical workers, approximately 27 per cent were able to obtain advanced positions. Present positions represent advancement to seven of the secretaries, six of the bookkeepers, five of the stenographers, three of the secretary-stenographers, one cost secretary, one credit investigator, one office manager, one personnel interviewer, and one sales correspondent.

Out of the total of 98 graduates now employed full time, only two factory workers, two hairdressers, one factory inspector, and one mechanic made little use of their business training, except presumably for personal use.

TABLE V

TYPES OF BUSINESSES EMPLOYING ROGER LUDLOWE BUSINESS GRADUATES  
IN THE ORDER IN WHICH THEY EMPLOY THEM

Type of Business	1945	1946	1947	Total	Approximate per cent of whole
Manufacturing Companies	15	21	13	49	49%
Life Insurance Companies	2	5	4	11	11%
Drug Distributors & Mfrs.	2	2		4	4%
Fairfield, Town of	1	2	1	4	4%
Retail Clothing		3	1	4	4%
Banks		1	2	3	3%
Attorneys		1	1	2	2%
Beauty Parlor	1		1	2	2%
Building Trades		2		2	2%
Dairy		2		2	2%
Plumbing Supplies			2	2	2%
Retail Grocery	2			2	2%
Real Estate	1		1	2	2%
Transportation	2			2	2%
Community Chest	1			1	1%
Connecticut Hospital Service		1		1	1%
Credit Company			1	1	1%
Fuel Distributor		1		1	1%
Garage	1			1	1%
Hotel		1		1	1%
Mortgage Company		1		1	1%
University of Bridgeport			1	1	1%
Utility Power Company	1			1	1%
Wholesale Food Distributors	1			1	1%
Total	30	43	28	101*	100%

\*Includes summer employment of 2 still in college of class of 1945 and of 1 still in college of class of 1947.

TABLE VI

TYPE OF POSITIONS  
HELD BY BUSINESS GRADUATES

Positions Held	1945	1946	1947	Total	Per cent of working graduates holding positions
General Clerical	7	15	10	32	33%
Secretary	2	8		10	10%
Bookkeepers, Assistants	4	3	1	8	8%
Stenographers	1	5	2	8	8%
Billing Clerks	1		3	4	4%
Secretary-Stenographers	3		4	7	7%
Cashier		1	1	2	2%
Comptometer Operator			2	2	2%
Cost-Secretary		2		2	2%
Delivery (Dairy)		2		2	2%
Dictaphone Operators	2			2	2%
Factory Worker	1		1	2	2%
Hairdresser	1		1	2	2%
Payroll Clerk	2			2	2%
Receptionist		1	1	2	2%
Sales Clerk		1	1	2	2%
Credit Investigator		1		1	1%
Factory Inspector		1		1	1%
Inventory Clerk	1			1	1%
Mail Clerk		1		1	1%
Mechanic	1			1	1%
Office Manager	1			1	1%
Personnel Interviewer	1			1	1%
Sales Correspondent		1		1	1%
Tabulator Operator		1		1	1%
Number Employed	28	43	27	98	100%
At School	2	0	2	4	
Total Graduates	30	43	29	102	

The two boys employed as deliverymen for a dairy keep records and accounts so that their business training is used to some extent.

As shown in Table VI, only two business graduates are employed as sales clerks. The percentage of those in selling, (2 per cent) appears particularly small as retailing is one of the required courses in the business curriculum.

TABLE VII  
METHOD OF SECURING EMPLOYMENT  
OF ALL BUSINESS GRADUATES WHO HAVE WORKED

	Job 1	Job 2	Job 3	Job 4
Through the high school	32			
A friend or relative	20	7	3	1
Personal Application	13	22	2	
U. S. Employment Service	11	2		
Private Employment Agency	8			
Newspaper Advertisement	8			
Government Draft Board	4			
Private Business School	4			
Civil Service Examinations	1			
Total	101	31	5	1

Table VII shows that out of the 101 business graduates who are now employed or who have been employed, 32 or almost one-third got their initial jobs through the high school. In several instances, business graduates who stated that they got their first job through personal application were

sent to their future employer by the high school so that the approximate percentage of those who secured their initial jobs through the high school is actually higher. Table VII indicates that the high school plays an active part in placing the student in his initial position.

The next largest source from which graduates received their initial jobs was friends or relatives, with the third major source personal application. The United States Employment Service was ranked next as an initial job source, followed by private employment agencies, newspaper advertisements, the government draft board, private business schools, and civil service examinations.

Personal application ranked first as the means of securing Job 2, and the next largest source was through friends or relatives, with the United States Employment Service as the third source.

A friend or relative was the first source used by graduates to secure Job 3, followed by personal application. Job 4, held by only one graduate, was secured through a friend or relative. Table VII indicates a fairly high stability of those graduates remaining on Job 1 and 2. Only five graduates applied for Job 3, and only one for Job 4.

TABLE VIII  
 NUMBER AND PER CENT OF GRADUATES RECEIVING  
 FURTHER TRAINING

	1945		1946		1947		Total
	Boys	Girls	Boys	Girls	Boys	Girls	
YES	2	6	1	7	0	4	20
Approx. Per Cent	67%	22%	33%	18%	0	14%	20%
NO	1	21	2	33	0	25	82
Total	3	27	3	40	0	29	102

As Table VIII shows, approximately one-fifth of the business graduates interviewed received advanced training. The fact that two boys in 1945 were able to enter college and compete successfully with other college students reveals that these two students were fitted by the business course to enter and remain at a higher educational institution. Their college records were sent to the high school and verify this fact. Both of these boys stated that while in the armed forces they successfully passed the clerical tests and did clerical work while in service.

The goodly percentage of business students receiving advanced training may be considered an encouraging indication that a business course can be used as a stepping stone to further education and specialization.

The general ability of the individual student undoubtedly plays a large part in the amount of training required, as all students received the same type of training and instruction.

and some of them felt the need for further training and others did not. Job requirements also must be considered, as well as the students' ability, in reasons for which graduates sought advanced training.

In a summary of reasons why business graduates took advanced training, seven graduates took courses because of a desire to secure more advanced positions, six took courses because of a felt job need and because they felt their high school training was insufficient, four took courses to specialize, and three took further training to enter a new field.

As shown in Table X, business graduates listed 13 firms in this area which gave employment tests. Graduates took Civil Service Examinations required for government employment, and the girls who wished to become hairdressers took physical and written tests given by the Connecticut State Department of Health. Two boys in the navy took clerical aptitude tests to obtain clerical positions while in the service.

As many as possible of the firms listed by business graduates as having given them tests, were contacted and sample tests were requested. The tests received from these firms have been catalogued for faculty reference only and are not given to the students.

The National Office Management Association's Standard Tests were formerly used by several high schools and business

LENGTH OF TIME BUSINESS GRADUATES HAD FURTHER  
TRAINING AND REASON FOR LEAVING JOB

## CLASS OF 1945

LENGTH OF TIME	REASON
B 4 yrs.	Wished further training (G. I.)
B 4 yrs.	Wished college training (G. I.)
G 2 yrs.	Wanted journalism and chance to meet more people
G 2 yrs.	Needed more training for advanced job.
G 18 mos.	Course in hairdressing
G 1 yr. (nights)	Needed more shorthand
G 1 yr. (nights)	Training for advanced position
G 6 mos. (nights)	Further training in shorthand and Business English needed

## CLASS OF 1946

LENGTH OF TIME	REASON
G 2 yrs.	Felt unprepared
B 1 yr.	Course in marketing needed
G 1 yr.	Wished advanced training
G 1 yr.	Wished advanced training
G 6 mos.	Needed specialized training by Telephone Company
G 5 mos.	Had to learn shorthand
G 2 mos. (nights)	Shorthand review for new job
G 2 mos. (nights)	Needed more bookkeeping

## CLASS OF 1947

LENGTH OF TIME	REASON
G 2 yrs.	Training for advanced position
G 1 yr.	Course in hairdressing
G 6 mos.	Needed more shorthand and office machine practice
G 4 mos.	Scholarship to Comptometer School

firms in this area. These tests have since been discarded as it was found that the better students were well prepared by the high schools to pass the NOMA tests with ease, and that the poorer students were discouraged by them.

The business graduates were asked to list the specific skills in which they found they were well prepared by the high school to use efficiently on the job. Table XI lists the specific skills in which the students felt well prepared in the order in which they ranked them.

As typewriting is one of the most commonly used skills, the number of business graduates who found that they were well prepared by the high school to use it efficiently is gratifying. Eighty-five per cent felt well prepared in it. Seventy-four per cent of the graduates felt well prepared to use filing. Sixty-three graduates felt well prepared to type carbons and make corrections. Fifty-five per cent felt well prepared in business letter writing. Fifty-three per cent of the graduates felt well prepared in arithmetic, fifty-one per cent in English grammar, fifty per cent in spelling, and thirty-seven per cent found themselves well prepared to answer the telephone or do bookkeeping. Twenty-seven per cent felt qualified to meet callers. Eight graduates felt well prepared to make out payrolls, three graduates to cut stencils, and two graduates felt well prepared to use the duplicator or mimeograph machine. One graduate felt assured of her

TABLE X

TESTS TAKEN BY BUSINESS GRADUATES  
AND GIVEN BY FIRMS OR GOVERNMENT DIVISIONS

<u>Company that Gives Test</u>	<u>Type of Test</u>
Associated Transport Company	Shorthand and Transcription
Bank of America, San Francisco	Typewriting and letter set-up
Bullard Company	Clerical Aptitude
Clark Metal Products, Inc.	Shorthand and Transcription
Conn. State Department of Health	Physical and Written
Conn. Railway & Lighting Co.	Aptitude
Dictaphone Corporation	Shorthand and Transcription
Equitable Life Insurance Co.	Otis Mental Ability
Hartford Accident	Shorthand and Transcription
Liberty Mutual Insurance Co.	Aptitude and Dictaphone
Manning, Maxwell & Moore	Shorthand and Transcription
Metropolitan Life Insurance Co.	Physical and Aptitude
McKesson & Robbins	Clerical Aptitude
Prudential Life Insurance Co.	Physical and Aptitude
United States Civil Service	Typewriting, shorthand, arithmetic
United States Navy	Clerical Aptitude

business conduct, and one graduate stated that she was well prepared in spelling. One graduate stated that she was well prepared to use the dictionary.

Table XI shows, that although all may have been trained in retailing or use of the dictaphone, the number of those stating that they found themselves well prepared to use them efficiently on the job is actually based upon and dependent upon the number who needed to apply these skills or knowledge. Although only one student stated she was well prepared in selling, Table XI reveals that only two entered selling, and only one felt well prepared.

Thirty-seven graduates stated that they felt well prepared to do bookkeeping or record keeping, and yet Table VI shows that only eight students are bookkeepers. Assuming that all those listed as general clerical workers, secretaries, stenographers, and secretary-stenographers (a total of 65, including the bookkeepers) do some form of record keeping, a truer picture may be had of those actually using bookkeeping. Thirty-seven of the business graduates stated that they felt well prepared to use bookkeeping. As the percentage of those who stated that they felt well prepared to make out payrolls, cut stencils, and use the duplicator or mimeograph was low, few graduates evidently were required to perform these duties.

As seven business graduates in the class of 1945, 17 business graduates in the class of 1946, and 10 business

TABLE XI

SPECIFIC SKILLS BUSINESS GRADUATES (101) WHO HAVE  
WORKED FOUND THEY WERE WELL PREPARED BY THE HIGH  
SCHOOL TO USE EFFICIENTLY

SKILLS	1945	1946	1947	Total	App. per cent
Typewriting	27	37	22	86	85%
Filing	24	33	18	75	74%
Carbons, Making corrections	22	25	16	63	62%
Business Letter Writing	18	23	15	56	55%
Arithmetic	25	17	12	54	53%
English Grammar	24	21	17	52	51%
Spelling	17	21	13	51	50%
Answering the Telephone	11	16	10	37	37%
Bookkeeping or Record Keeping	17	10	10	37	37%
Meeting Callers	10	11	6	27	27%
Dictaphone	6	8	5	21	20%
Making Out Payrolls	5	1	2	8	8%
Cutting Stencils	1	1	1	3	3%
Duplicator	1		1	2	2%
Mimeographing	1		1	2	2%
Business Conduct			1	1	1%
Selling		1		1	1%
Use of Dictionary				1	1%
*Shorthand	9	11	7	27	40%
*Transcription	9	11	7	27	40%

\*A total of 68 students of those interviewed took shorthand and transcription and the percentage in these two courses is based on this total.

graduates in the class of 1947 did not take shorthand or transcription, these two courses are listed separately. A total of 68 of the 101 business graduates interviewed who have worked, took shorthand and transcription, and of these 27 stated that they felt prepared to use it efficiently.

Table XII shows the office machines used on the job by business graduates in the order of their frequency of use. The manual typewriter ranked first and was used all of the time by 43 of the graduates. A total of 30 others also used it in their work.

The electric adding machine ranked next, and was used by 18 of the business graduates all of the time, and by 36 some of the time. The manual adding machine was used by 52 of the graduates, ten of whom stated that they used it all the time. Twelve of the graduates used the dictaphone all of the time, and 16 used it some of the time. Twenty-six of the graduates used the comptometer, five of whom stated that they used it all the time. Twenty-one of the graduates used the electric typewriter, with 17 using it all of the time, and four to a lesser extent. The comptometer was used by five of the graduates all of the time, and by 21 some of the time. The electric typewriter and comptometer were not in school in 1945 and 1946, but were taught from 1947 on. The need for them was indicated in Table XII.

The Burroughs Calculator was used by 20 graduates, and 14 graduates used the manual mimeograph. Eleven of the

TABLE XII

OFFICE MACHINES USED ON JOBS BY BUSINESS GRADUATES  
LISTED IN ORDER OF FREQUENCY OF USE

Machine	No. of Graduates Using Machines			Total
	Use All The Time	Great Deal	Very Little	
Typewriter, Manual	43	21	9	73
Adding Machine, Electric	18	19	17	54
Adding Machine, Manual	10	21	21	52
Dictaphone	12	8	8	28
**Comptometer	5	6	15	26
**Typewriter, Electric	17	2	2	21
Burroughs Calculator	5	6	9	20
Mimeograph, Manual	4	6	4	14
*Addressograph	1	5	5	11
**Burroughs Bookkeeping, Electric	4	5	1	10
Monroe Calculator, Electric	3	3	3	9
*Ditto	1	2	5	8
*Mimeograph, Electric	1	4	3	8
Monroe Calculator, Manual	1	2	1	4
Standard Duplicator	2	2		4
*Ediphone		2	1	3
*Burroughs Billing	2	1		3
*Friden Calculator	2			2
*Metered Mail Machine	2			2
*Teletype		2		2
*Bookkeeping Machine, Manual		1	1	2
*Erant Automatic Calculator		1		1
*Carduitzer		1		1
*IBM Bookkeeping Machines		1		1
**Sundstrand Calculator	1			1
*Photostat Machine			1	1
*Multigraph, Manual	1			1
Total	135	121	106	362

\*Machines not in school

\*\*Machines not in school during 1945 and 1946, but purchased in 1947

graduates used an addressograph.

Ten graduates used the electric bookkeeping machine, nine used the Monroe Electric, eight used the ditto, and eight used the electric mimeograph.

Other machines listed were used by only a few business graduates ranging from four to one in number. They were: the manual Monroe Calculator, the Standard Duplicator, the Ediphone, the Burroughs Billing Machine, the Friden Calculator, the Metered Mail Machine, the Teletype, the manual Bookkeeping Machine, the Prant Automatic Calculator, the Carduitzer, the IBM Bookkeeping Machines, the Sundstrand Calculator, the Photostat Machine, and a manual Multigraph.

TABLE XIII

NUMBER AND PER CENT OF BUSINESS GRADUATES WHO  
FOUND ON-THE-JOB TRAINING NECESSARY

Year	Number of Graduates Responding		
	Yes	No	No Answer
1945	8	16	6
1946	12	24	7
1947	11	14	16
Totals	31	54	23
*Approx. Per Cent	30%	52%	23%

\*Per cent based on total of those (101) who worked.

Table XIII shows, that of the 101 graduates who have worked, 31 received on-the-job training, while a majority, or 54 respondents, did not receive on-the-job training. Sixteen of the business graduates did not answer this question.

As Table XIV shows, office practice ranks first as the course that business graduates thought could have been taught more thoroughly. This indicates that more time should be allotted to this course and that, as it consists principally of practice on the various machines, a two-hour course, instead of a one-hour course, should be offered. The simpler machines might be taught in the junior year. Lack of time, large classes, and lack of equipment in this school, as in other high schools, are the main obstacles.

As shown in Table XIV, ten graduates ranked "meeting callers" as one of the duties that they felt ill prepared to perform, while 27 of the graduates felt well prepared to perform this duty as stated in Table XI.

Nine graduates out of the 26 who used the comptometer (see Table XII) thought it could have been taught more thoroughly as shown in Table XIV. The comptometer was not taught until 1947 and the need for teaching it is evident.

Although 37 of the business graduates interviewed (see Table XI) stated that they were well prepared to use the telephone, eight thought that they were not well prepared, as shown in Table XIV. Authority to make decisions and

TABLE XIV

DUTIES THAT BUSINESS GRADUATES THOUGHT COULD HAVE BEEN  
 TAUGHT, OR TAUGHT MORE THOROUGHLY, IN HIGH SCHOOL

51

	No. of Graduates Responding				Per Cent
	1945	1946	1947	Total	
Office Practice	2	6	5	13	13%
Meeting Callers	4	1	5	10	10%
**Comptometer	3	4	2	9	9%
Answering the Telephone	2	3	3	8	8%
**Burroughs Bookkeeping-Electric	2	3	2	7	7%
Dictaphone	4	1	2	7	7%
Filing	2	4	1	7	7%
Bookkeeping or Record Keeping	2	3	1	6	6%
Business Letter Writing	3	2	1	6	6%
Burroughs Calculator	3	1	1	5	5%
Monroe Calculator-Electric	3	2		5	5%
**Typewriter-Electric	1	2	2	5	5%
Adding Machine-Manual	1	3		4	4%
Typewriting Figures and Statistics	1	1	2	4	4%
Figuring Discounts		1	1	2	2%
Cashiering and Handling Money	2		1	3	3%
*Addressograph	2			2	2%
*Burroughs Billing Machine	1		1	2	2%
Insurance Information, Deeds, Contracts and Mortgages		1	1	2	2%
*Mimeograph-Electric	2			2	2%
Office Procedure--Organizing a Day's Work	1	1		2	2%
Spelling		2		2	2%
Cutting Stencils	1			1	1%
English Grammar	1			1	1%
*Friden Calculator	1			1	1%
*IBM Machines--Bookkeeping		1		1	1%
Job Evaluation Personnel Records	1			1	1%
**Sundstrand Bookkeeping		1		1	1%
*Switchboard		1		1	1%
*Teletype	1			1	1%
Shorthand	3	2	2	7	10%
Transcription	3	2	2	7	10%

Per cent based on (101) number who worked

\*Machines not in school

\*\*Machines not in school in 1945 and 1946 but purchased in 1947

knowledge of the facts involved might explain the difficulty that some graduates had in answering the telephone with ease.

Of the ten graduates who stated that they used the electric bookkeeping machine (see Table XII) two from the class of 1947 stated that they thought it could have been taught more thoroughly, and five from the classes of 1945 and 1946 thought it should have been taught as it was not introduced until 1947 as shown in Table XIV.

Of the 28 graduates who use the dictaphone (see Table XII) seven felt that it could have been taught more thoroughly as shown in Table XIV.

Seventy-five of the graduates (see Table XI) stated that filing is one of the skills that they felt well prepared to use. Only seven graduates felt that they needed more training in it as shown in Table XIV. The findings show that enough training was given in filing for the majority of the graduates.

Thirty-seven graduates (see Table XI) stated that they felt well prepared to perform bookkeeping duties, and only six felt that they needed further training in it as shown in Table XIV.

Fifty-six graduates found that they were well prepared in business letter writing (see Table XI) and only six graduates indicated the need for more training in it as shown in Table XIV. The findings show that enough training

was given in business letter writing for the majority of the graduates.

Of the 20 graduates who stated that they used the Burroughs Calculator (see Table XII), five stated that they needed more training in it as shown in Table XIV.

Nine graduates used the electric Monroe Calculator (see Table XII), and of these, five felt that they needed more training on it as shown in Table XIV.

Of the 21 graduates who used the electric typewriter on-the-job (see Table XII) only two from the class of 1947 had any training on it as it was not purchased until that year. As shown in Table XIV three graduates from the classes of 1945 and 1946 indicated that they felt the need for training on the electric typewriter, and two graduates from the class of 1947 who had received such training, indicated that they needed further practice.

Fifty-two graduates used the manual adding machine (see Table XII) and only four felt the need for more training on it as shown in Table XIV. This indicates that sufficient practice was given on it for the needs of the majority.

Fifty-four of the 101 graduates found they were well prepared by the high school to use arithmetic (see Table XI), and four graduates indicated that they needed more training in figuring discounts as shown in Table XIV. Three graduates stated that they needed more training in cashing or handling money.

Eleven students used the addressograph (see Table XII), and two stated that they felt training should be given on it as shown in Table XIV.

Only three graduates used the Burroughs Billing Machine (see Table XII), and two graduates felt the need for training on it as shown in Table XIV. It is not taught in high school. Two graduates felt the need for more preparation in insurance information involving deeds and mortgages.

Equipment or machines which are not in the high school but used by the graduates (see Table XII and XIV) were the: Addressograph, manual Bookkeeping Machine, Brent automatic Calculator, Burroughs Billing, Carduitzer, Ditto, Ediphone, Friden Calculator, IBM Machines, Metered Mail Machine, electric Mimeograph, manual Multigraph, Photostat, switchboard, and the teletype. As only one or two graduates stated that they used these machines, installing or teaching them does not appear necessary.

Switchboard training is offered free by the telephone company so that students who need this training may avail themselves of this service.

Two students stated that they would have liked further training in organizing a day's work as shown in Table XIV.

Fifty-one graduates, or about one-half of those interviewed (see Table XI) stated that they were well prepared in spelling. Only two graduates, as shown in Table XIV, stated that they felt the need of more training in this subject.

Three graduates stated that they cut stencils (see Table XI) and of these one stated that she felt unprepared to do so.

Fifty-two of the 101 graduates interviewed (see Table XI) stated that they were well prepared by the high school to use English grammar efficiently. Only one respondent, as shown in Table XIV, stated that she felt unprepared in grammar.

One graduate stated that she would have liked to have had training in evaluating personnel records. As this is a specialized field, the high school does not attempt to give training in it.

Twenty-seven graduates felt well prepared to use shorthand and to transcribe (see Table XI) and seven graduates wished more training in it as shown in Table XIV.

Courses that the graduates considered of most value in the order in which they rated them are typewriting, English grammar, office practice, bookkeeping or record keeping, spelling, arithmetic, filing, and business English (letter writing). One graduate voted biology as of most value as she had worked in a dentist's office; one voted law as of most value.

As shorthand and transcription were taken by only 68 of the 101 graduates interviewed who have worked, these subjects did not receive as high a vote as expected. Only 24 graduates of those who took these two courses rated them as of most value.

COURSES CONSIDERED TO BE OF MOST VALUE BY  
BUSINESS GRADUATES

	No. of Graduates Responding			
	1945	1946	1947	Total
Typewriting	28	30	21	79
English Grammar	17	15	5	37
Office Practice	15	16	6	37
Bookkeeping or Record Keeping	10	9	6	25
Spelling (included in English Business)	2	5	15	22
Arithmetic	10	3	6	19
Filing	6	5	3	14
Business English (Letter Writing)	2	8		10
Biology		1		1
Law	1			1
*Shorthand	7	14	3	24
*Transcription	7	14	3	24

\*A total of 68 students of those interviewed took shorthand and transcription.

Business graduates considered the following subjects of some value to them in the following order of importance: bookkeeping or record keeping, English grammar, business English (letter writing), filing, office practice, law, typewriting, arithmetic, junior business training, retailing, spelling, consumer education, and economics. Nine respondents considered bookkeeping of some value, and the answers ranged from this number down to one response each for consumer education and economics.

Shorthand and transcription received 11 responses and as this was based on the total of 68 of the 101 graduates interviewed

who have worked, these subjects outranked bookkeeping for actual number of responses.

TABLE XVI

COURSES CONSIDERED TO BE OF SOME VALUE BY  
BUSINESS GRADUATES

	No. of Graduates Responding			
	1945	1946	1947	Total
Bookkeeping or Record Keeping	2	4	3	9
English Grammar	4	1	3	8
Business English--Letter Writing	1	6		7
Filing	1	4		5
Office Practice			5	5
Law		1	3	4
Typewriting		2	2	4
Arithmetic			3	3
Junior Business Training		1	1	2
Retailing		1	1	2
Spelling (included in Business English)			2	2
Consumer Education		1		1
Economics		1		1
*Shorthand	4	4	3	11
*Transcription	4	4	3	11

\*A total of 68 students of those interviewed took shorthand and transcription.

Business graduates ranked the following subjects of little value in the following order: history, retailing, consumer education, economics, filing, junior business training, English grammar, sociology, and law.

COURSES CONSIDERED TO BE OF LITTLE VALUE BY  
BUSINESS GRADUATES

	No. of Graduates Responding			
	1945	1946	1947	Total
History	1	1	2	4
Retailing	1	2	1	4
Consumer Education	1	1	1	3
Economics	1	2		3
Filing	1	1	1	3
Junior Business Training	1		1	2
English Grammar	1	1		2
Sociology		1		1
Law		1		1

Table XVIII shows jobs performed most often in the order of frequency of use as the business graduates ranked them. As approximately 33 per cent of the graduates are working as general clerical, it is not surprising that filing, answering the telephone and typewriting ranked first on the list. Meeting callers, bookkeeping or record keeping, composing business letters, taking dictation or shorthand, sorting mail, and making out payrolls followed in order. Using the dictaphone, duplicating, cashiering, figuring costs of sales, using the metered mail machine, and using the electric Monroe Calculator or the addressograph followed next. Billing invoices, using the comptometer, mimeographing, using the teletype, analyzing personnel records, using the Carduitzer, the Friden Calculator, the IEM machines, the Photostat,

TABLE XVIII

JOBS PERFORMED MOST OFTEN IN ORDER OF FREQUENCY OF USE

59

	Performed in Order of Frequency								Total	Per Cent of all Jobs Per- formed	
	#1	#2	#3	#4	#5	#6	#7	#8			
Filing	* 28	12	13	11	7	1	1		75	9.2	
Answering the Telephone	33	10	7	7	3	4	2	2	68	8.5	
Typewriting	46	8	9	2	1				66	8.3	
Figures and Statistics	19	15	8	13	7	2	1	2	66	8.3	
Form Letters	22	4	12	5	3	1	2	2	48	6.1	
Envelopes	18	15	2	5	2	1			45	5.8	
Bills	16	9	6	3	4	1	1	1	40	5.0	
Transcription	25	5	4		1	1			37	4.6	
Tabulated Material	12	11	10			3	3	2	38	4.8	
Dictation	3	5	6		1	4		3	25	3.2	
Manuscripts	5		2		4				11	1.4	
Making Master Copies				1	1	1			3	.4	
Meeting Callers	29	11	5	6	4	1			56	7.0	
Bookkeeping or Record Keeping	26	8	8	6	2		2	1	53	6.0	
Composing Business Letters	15	8	3	5	3	1	1	3	39	4.9	
Shorthand	22	8	3		1				34	4.3	
Sorting Mail	20	6		4		1			31	3.9	
Payrolls (making out)	8	3	3	1	3	1		4	23	2.9	
Dictaphone	3	2	2						7	.9	
Duplicating		1	2	1		1			5	.6	
Cashiering or Handling Money	1			1	1				3	.4	
Figuring Cost of Sales	1		1	1					3	.4	
Metered Mail Machine		1	1	1					3	.4	
Monroe Calculator (Electric)		1	1	1					3	.4	
Addressograph	1	1							2	.3	
Billing Invoices		1	1						2	.3	
Comptometer	1	1							2	.3	
Mimeographing	1	1							2	.3	
Teletype	1	1							2	.3	
Analyzing Personnel Records	1								1	.1	
Carduitzer		1							1	.1	
Friden Calculator		1							1	.1	
IBM Machines	1								1	.1	
Photostat			1						1	.1	
Preparing Outgoing Mail				1					1	.1	
Sundstrand Calculator			1						1	.1	
Switchboard			1						1	.1	
									Total	798	100.00

# - Job number

\* - Responses

preparing outgoing mail, using the Sundstrand Calculator, and using the switchboard were last in order of use.

The jobs listed as performed most often in order of frequency of use is in keeping generally with Potter's<sup>1</sup> findings. She found that

Over 85 per cent of the work of beginning general clerical employees in large businesses involves the skills of typewriting, filing, and such non-specialized clerical work as classifying and sorting or checking names and numbers for accuracy.

Answering the telephone was rated by 33 of the graduates questioned in this study as the job performed most often, by 10 as the second job performed most often, and by 14 as the job performed third and fourth most often. Potter, however, did not find in her study that the job of answering the telephone was one of the duties performed most often.

Table XIX is in partial answer to Question 14 which asked: "What subjects or in what field would you have liked to have had more training?" Office practice rated first as the subject in which graduates would like to have had more training. Meeting callers, transcription, shorthand, answering the telephone correctly, bookkeeping or record keeping and arithmetic followed in the above order. Business letter writing, typewriting reports, statistics, and rough drafts, filing, spelling, and further knowledge of deeds,

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<sup>1</sup>Potter, Thelma M., An Analysis of the Work of General Clerical Employees, Contributions to Education, No. 903, Bureau of Publications, Teachers College, Columbia University, 1944, pp. 73-75.

leases, contracts, and English grammar were the subjects or knowledge for which the graduates felt the need of more training. The graduates also stated that they thought they should have had training or further training in handling money, law, advanced mathematics, making master copies, and job evaluation of personnel records.

TABLE XIX

SUBJECTS OR KNOWLEDGES IN WHICH BUSINESS GRADUATES  
WOULD HAVE LIKED TRAINING OR FURTHER PRACTICE

Subjects or Knowledge	No. of Answers from Graduates			
	1945	1946	1947	Total
Office Practice	5	11	6	22
Meeting Callers	2	5	4	11
Transcription	3	3	4	10
Shorthand	3	2	4	9
Answering the telephone correctly	2	3	2	7
Bookkeeping or record keeping	2	3	2	7
Arithmetic	3	1	2	6
Business Letter Writing	1	3	1	5
Typewriting reports, statistics and rough drafts	1	1	3	5
Filing	4	1		5
Spelling	2	2	1	5
Deeds, Leases, Contracts	1	1	1	3
English Grammar	2	1		3
Handling Money	2		1	3
Law	1	1	1	3
Advanced Mathematics		2		2
Making Master Copies	1	1		2
Job Evaluation of Personnel Records	1			1
Total	36	41	32	109

\*Some graduates responded twice to this question

The responses given to this question were not exactly like those in Table XIV which shows the duties that business graduates thought could have been taught or taught more thoroughly in high school. Many failed to answer Question 14 and the discrepancy is undoubtedly because of this fact.

However, the response to both questions follows a general trend. Both Table XIV and Table XIX show that the graduates rate office practice as the subject in which they felt the need of more training.

Omitting the machines listed in Table XIV, and comparing this table with Table XIX, it may be seen that the need for more training in meeting callers, transcription and shorthand, answering the telephone, bookkeeping, filing, business letter writing, typewriting reports, statistics, and rough drafts, spelling, and English grammar, follow roughly in the same order in both tables.

As shown in Table XX, nine graduates indicated that they thought the dictaphone could have been taught more thoroughly. Six graduates desired training on the comptometer, and two who had been trained on it felt the need of more practice. Seven graduates desired more training on the Burroughs Calculator. Five graduates felt that they should have had training on the electric typewriter, and although it was taught in 1947, two graduates from that class desired further practice on this machine. Six graduates felt the need of more training on the manual

TABLE XX

EQUIPMENT OR MACHINES BUSINESS GRADUATES THOUGHT COULD  
HAVE BEEN TAUGHT OR TAUGHT MORE THOROUGHLY IN HIGH  
SCHOOL

63

Machines or Equipment	1945	1946	1947	Total
Dictaphone	4	2	3	9
**Comptometer	2	4	2	8
Burroughs Calculator	3	3	1	7
**Typewriter Electric	3	2	2	7
Bookkeeping Machine Manual	4	1	1	6
Typewriting Reports--Statistics	1	1	3	5
*Addressograph	2		2	4
**Bookkeeping Machine Electric	1	2	1	4
*Burroughs Billing Machine	2	1	1	4
*Mimeograph Electric	2	1	1	4
Monroe Calculator Electric	2	1		3
*Brant Automatic Calculator	1	1		2
*Friden Calculator	2			2
*IBM Machines	1	1		2
*Metered Mail Machine	1	1		2
*Photostat	1		1	2
*Switchboard	1	1		2
*Teletype	2			2
*Carduitzer	1			1
**Sundstrand Calculator	1			1
	36	23	17	76

\*Machines marked \* not in school

\*\*Machines marked \*\* not purchased until 1947

bookkeeping machine, five wanted more training in typewriting reports and statistics, and two wanted training on the addressograph. Three graduates desired training on the electric bookkeeping machine, and one graduate from the class of 1947 who had received practice on it, felt the need of further training on this machine.

Four graduates wished training on the Burroughs Billing Machine, four on the electric mimeograph, and three felt the need of more training on the electric Monroe Calculator.

Two graduates in each case desired training on the following equipment or machines, none of which were offered at Roger Ludlowe: Brant Automatic Calculator, Friden Calculator, IBM Machines, Metered Mail Machine, Photostat, switchboard, and the teletype. One graduate felt the need for training on the Carduitzer, and one graduate from the class of 1945 felt the need for training on the Sundstrand Calculator which was offered in 1947.

The small number of requests for training on the above-mentioned machines does not indicate that enough graduates use them to make the installation of them practical or necessary as yet.

As shown in Table XXI, business graduates thought the following courses should have been offered by the high school: speech, nine; personality, six; office conduct and procedure, five; separate transcription course in the senior year, four;

TABLE XXI

COURSES BUSINESS GRADUATES THOUGHT COULD HAVE BEEN  
OFFERED IN HIGH SCHOOL AS THEY RATED THEM

65

COURSES	1945	1946	1947	Total
Speech	2	3	4	9
Personality	2	3	1	6
Office Conduct and Procedure	2	2	1	5
Separate Transcription Course in Senior Year	2	1	1	4
Psychology	1		2	3
Office Management	1			1
Total	10	9	9	28

TABLE XXII

OTHER SUGGESTIONS FROM BUSINESS GRADUATES

COURSES	1945	1946	1947	Total
On-the-job training in High School	3	2	2	8
Omit Retailing and Consumer Education		1	1	2
Begin office practice junior year		1	1	2
Five-Year High School (Last Year for Specialization)		1	1	2
Have variety of people dictate shorthand	1		1	2
Have more outside speakers on business subjects	1		1	2
More dictation at the typewriter		1	1	2
Instruction in proper dress and proper use of make-up for girls			1	1
Total	5	7	9	22

psychology, three; and office management, one. A course in speech was introduced in 1948.

Other suggestions from the business graduates as shown in Table XXII were as follows: on-the-job training in high school, omission of retailing and consumer education, introduction of office practice in the junior year, a five-year high school with the fifth year devoted to specialization, dictation from a variety of people, outside speakers on business subjects, more dictation at the typewriter, instruction in proper dress and proper use of make-up for girls.

The following expressions of opinion were offered by the graduates:

I think that we should have had more office practice training--at least two years of this subject. Instead of stressing the point of not chewing gum and eating candy during office hours, we should have been taught how to approach different callers and also the correct way of answering the telephone. After all, we do meet many people and of all types and nationalities. It really is wonderful to know how to approach and handle each one.

We should have newer office machines in school. In my opinion what I learned in high school was of very little use on the job. When you become a secretary you set up your own system.

One system I thought very helpful in school was the spelling drills we had in our senior year in English. The words that were given us over and over are words which are used in every office daily. This spelling should be continued in every English class.

I wish that I had had more experience in typing statistics and figures. My job calls for typing reports and I had quite some difficulty in first setting them up. I also think that the electric typewriter should be offered.

I really thought that I was trained for the business world very well. I guess it is up to the student whether or not he or she profits from what is taught. At my present position I was trained in school for typing and business machines sufficiently to do my work well.

In my opinion a student graduating from Roger Ludlowe is prepared to take on an office job and should be capable enough of handling any ordinary matter or problem that comes up, but if a special type office job is desired, extra specialized training may be necessary. I don't think that a high school education can include this special work.

I felt well qualified by my business training to compete with other high school graduates, as well as those with business school training. I think that we had an excellent Business English course which helps me when I have to compose letters.

In general, the data indicate that the majority of the business graduates felt well prepared by the high school to perform jobs required of them of business in this area. Because of individual differences and types of jobs, some business graduates felt the need of more training. A complete detailed summary of the data and specific recommendations based on the findings of the study will be presented in Chapter VI.

## CHAPTER VI

### SUMMARY AND RECOMMENDATIONS

As stated in Chapter I, the purposes of this follow-up study of the business graduates of the classes of 1945, 1946, and 1947 of Roger Ludlowe High School in Fairfield, Connecticut were to determine:

1. The extent to which Roger Ludlowe High School was meeting the vocational needs of the community and business in training the business graduates
2. The extent of specific employment standards or requirements in this area
3. The specific duties and skills most commonly required of Roger Ludlowe High School business graduates, and the extent to which these graduates felt prepared to meet them
4. The courses which the graduates felt were of the most, of some, and of little value as an evaluation of the present business curriculum and the subjects required in the business course
5. The improvement or changes necessary in the training of Roger Ludlowe High School business graduates as suggested by the respondents

A summary of the data obtained from the 102 questionnaires received is given as follows:

1. Eighty-five per cent of the graduates were working full time. Only 12 were at home, four were going to school, and one was unemployed.

2. Forty-nine per cent of Roger Ludlowe business graduates were employed by large manufacturing concerns. Life insurance companies employed 11 per cent, and the

remaining 40 per cent were employed by 22 different types of firms. The majority of the graduates were employed as office workers, 33 per cent as general clerical, 10 per cent as secretaries, 8 per cent as stenographers, and 7 per cent as secretary-stenographers. Thirty-two per cent of the remaining graduates held 19 different types of positions. The administrators were justified, therefore, in view of the small number of business graduates employed as secretaries, to place restrictions upon those who would take the secretarial curriculum.

3. The high school plays an active part in placing the graduate in his initial position.

4. Twenty of the business graduates interviewed received advanced training.

5. Two business graduates of the class of 1945 were completing a four-year course at the state university. Four business graduates had two years of advanced training each. The average time spent in advanced training either at night or day school by the remaining 14 was eight months.

6. Seven graduates took advanced training to secure more advanced positions, six took courses because they felt their high school business training was insufficient, four took courses to specialize, and three took further training to enter new fields.

7. Business graduates listed 13 firms in this area which gave tests. The majority of the tests were typewriting,

shorthand, transcription, or clerical aptitude. No definite standards of employment or tests are adhered to. The National Office Management Association Standard Tests were formerly used by several high schools and business firms in this area. These tests have since been discarded as it was found that the better students were well prepared by the high schools to pass the NOMA tests with ease, and that the poorer students were discouraged by them.

At present, NOMA, under the direction of Mr. Elwood Street, Chairman of the Education Committee in the Bridgeport area, is making a survey of local high schools to determine what standards are set by business department teachers for their students.

8. The majority of the business graduates felt well prepared by the high school to use the manual typewriter, to do filing, to write business letters, to use arithmetic, to use English grammar correctly, to spell, to answer the telephone, to do bookkeeping or record keeping, and to meet callers.

9. The manual typewriter, and the electric and the manual adding machines were the machines used most frequently by the majority of the business graduates in this area. The following machines were the next most commonly used in this order of frequency: dictaphone, comptometer, electric typewriter, Burroughs Calculator, manual mimeograph, addressograph, Burroughs Bookkeeping (electric), Monroe

Electric, Ditto, and the electric mimeograph. The machines used by the graduates but not offered by the high school were used by so few that it does not seem practical at this time to install them, except for the electric mimeograph. The machines most commonly used in this area are now taught.

10. Fifty-three per cent of the business graduates did not receive on-the-job training, 31 per cent did receive on-the-job training, and 16 per cent did not answer the question.

Office practice ranks first as the subject that business graduates thought could have been taught more thoroughly. This indicates that more time should be allotted to this course, and that, as it consists principally of practice on the various machines, a two-hour course should be offered in it if possible. Lack of time, large classes, and lack of equipment as in other high schools are the main obstacles to the graduates' demand for more training in office practice.

Besides more practice on the machines, graduates felt that more training in meeting callers and answering the telephone was needed.

The majority of the graduates felt well prepared to perform basic office duties as the largest number of graduates who indicated the need for more training in the following were seven: shorthand, transcription, filing,

bookkeeping, business letter writing, typewriting figures and statistics, handling money, figuring discounts, working with deeds, contracts, and mortgages.

11. The courses taken that the graduates found of "most importance," in the order in which they rated them, are: typewriting, English grammar, office practice, bookkeeping or record keeping, shorthand and transcription, spelling, arithmetic, filing, and business English, especially letter writing.

Courses which the graduates found to be of "some value" are given in the order that the graduates rated them: shorthand, transcription, bookkeeping or record keeping, English grammar, business English, chiefly letter writing, filing, office practice, law, typewriting, arithmetic, junior business, retailing, spelling, consumer education, and economics.

Courses found to be of "little value" to business graduates, in order of importance, are: history, retailing, consumer education, economics, filing, junior business, English grammar, sociology, and law.

12. Business graduates rated "jobs performed most often" in the following order: filing, answering the telephone, typewriting, meeting callers, bookkeeping or record keeping, composing business letters, taking dictation, sorting mail, and making out pay rolls. Nineteen other jobs were listed but they were performed by seven or less of the

graduates.

13. Subjects the graduates would have liked to have had more training in were: office practice, (22 students), meeting callers, (11 students), and transcription, (10 students). Less than ten people indicated that more training would have been desirable in the following subjects: shorthand, answering the telephone correctly, bookkeeping or record keeping, arithmetic, business letter writing, typewriting reports, statistics, and rough drafts, filing, spelling, deeds, leases, contracts, English grammar, handling money, law, advanced mathematics, making master copies, and job evaluation of personnel records.

The number of graduates who suggested that more training should be given on the following machines were: dictaphone, 9; comptometer, 8; Burroughs Calculator, 7; electric typewriter, 7; manual bookkeeping machine, 6; typewriting reports and statistics, 6; addressograph, 4; Burroughs Bookkeeping Machine (electric), 4; electric mimeograph, 4; and the Monroe Calculator, 3. The machines used by the largest number of graduates are now taught and sufficient training seems to be given on them for the average graduate. Acquaintance with, and basic operating techniques are taught. Graduates who wish to specialize on any machines should receive advanced training in other schools.

The course and the number of business graduates who suggested them are: speech, 9; personality, 6; office

conduct and procedure, 5; separate course in transcription the senior year, 4; psychology, 3; and office management, 1.

Other suggestions for the improvement of the business education program from the business graduates in the order of their responses were: on-the-job training in high school, 8; omission of retailing and consumer education, office practice in the junior year, five-year high school with the last year given to specialization, variety of people to dictate shorthand, outside speakers on business subjects, more dictation at the typewriter, 2 each; and instruction in proper dress and make-up for the girls, 1.

✓ In general, the data indicates that the majority of graduates felt well prepared by the high school to perform jobs required of them in business. Because of individual differences and varying job requirements, some graduates felt the need of more training.

The following recommendations are made on the basis of the interpretation and analysis of the data of the follow-up study under discussion.

✓ 1. General objectives of the business department. A broad general education as well as one important major vocational skill should continue to be an objective of business education at Roger Ludlowe High School, and the guidance department should continue to encourage business students to diversify their programs as much as possible.

✓ 2. Testing Program. The head of the business department

and the guidance director should continue in their efforts<sup>75</sup> in developing a testing program for the business department.

✓ 3. Standards for business graduates. Definite standards for graduation and placement should be established and adhered to, and the administrators should be encouraged to continue to maintain high standards for the business graduates.

✓ 4. Prospective status for boys in business. The guidance and business department should be encouraged to do research to determine the prospective status for boys in business in an effort to determine the courses best suited to prepare them for entrance into business with the tightening up of factory jobs in this area.

5. Business subjects open to all students. Typewriting I, bookkeeping I, and shorthand I should continue to be offered to all students, based on the standards for entrance into these subjects.

6. Vitalize retailing and shorten the time of consumer education. Retailing should be offered in the senior year and students should receive credit for work experience to make the course more meaningful and practical, and bring it nearer to the time of actual use.

Consumer education should be incorporated as a unit in the clerical practice course and a half year should no longer be devoted to this subject during the sophomore year.

✓ 7. Contributing to the student's social confidence. A

study and an investigation should be made of the personality course as offered by business schools and as taught at the Albert Leonard High School in New Rochelle, New York. If the course is considered effective and worth while by the administrators and faculty, it should be incorporated in the senior business curriculum.

8. Close contact with the Connecticut State Employment Service, with business men, and with the National Office Management Association. The business department should continue to maintain close contact with the Connecticut State Employment Service, with business men, and with the NOMA in order that business teachers may be continually aware of the job requirements of beginning office workers and the standards and tests adapted in this area, if any. Business should be educated to the fact that the high school's primary objective is to prepare its graduates to meet initial job requirements, and does not attempt to turn out specialists.

9. Office practice equipment. A long-range plan for the replacement of office machines should be worked out in order that school equipment may be kept up-to-date.

✓ 10. Electric mimeograph and electric typewriter. An electric mimeograph should be installed for practice and for speeding up the work of students and teachers. Another electric typewriter should be installed in order to offer more time and practice on the technique of IEM machines.

11. Office practice course of two hours. The office

practice course should be offered as a two-hour laboratory course as the art courses are now offered.

12. Standards for admission to shorthand. Students should continue to be recommended for shorthand on the basis of an English grade of B or better. Consideration should be given also to such factors as interest, aptitude, intelligence, and scholastic records.

13. Separate class for senior transcription. A separate class five times a week should be devoted to transcription in the senior year to give secretarial students a full period each day for machine transcription of their shorthand notes. This course should be supplementary to shorthand II which is given <sup>five</sup> one period a week and permits transcription three half periods a week as the class time is of necessity devoted to shorthand.

14. Remedial arithmetic classes. Remedial arithmetic classes should again be started for those business seniors not able to pass standard arithmetic tests.

15. Specific recommendations for teaching:

- ✓ a. Interview clinics, personal data sheets, solicited and unsolicited letters of application should be continued as part of the work of business seniors.
- ✓ b. The inclusion of spelling should be continued as part of the daily assignment in business English.
- ✓ c. More emphasis should be placed on training students to answer the telephone and greet callers.

- ✓d. More emphasis should be placed on teaching tabulations, reports, and statistics to both beginning and to advanced typewriting students.
- ✓e. More emphasis should be placed in law on the detailed study of deeds, mortgages, and contracts, and sample forms should be secured and studied for this purpose.

✓16. Check on business graduates. Close contact should be maintained with the graduated business seniors to determine the weaknesses and the strengths of their business training as revealed by their work experience. Business teaching may thus be geared to meet the needs of the times.

✓17. Work experience for business teachers. Business teachers should be encouraged to have varied work experience to acquire new procedures and to keep in touch with actual business methods.

18. Adult education classes. The adult education director might contact former business graduates of Roger Ludlowe to determine if 15 or more would profit by refresher or advanced courses in the light of their work experience needs. If so, courses could be offered to meet the needs of Roger Ludlowe business graduates.

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ROGER LUDLOWE HIGH SCHOOL  
FAIRFIELD, CONNECTICUT

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HAROLD A. SWAFFIELD, PRINCIPAL  
SYLVIA N. JOHNSON, ASST. PRINCIPAL

July 27, 1949

Mrs. Barbara Kunhardt  
4 Charlesgate East  
Boston, Mass.

Dear Mrs. Kunhardt:

In answer to your recent letter regarding your choice of a survey for your course, may I suggest that I believe #2 "A follow-up study of the commercial graduates of Roger Ludlowe" would be your best choice.

I hope that you are enjoying your summer and not working too hard.

Sincerely yours,



H. A. Swaffield  
Principal

HAS/E

(copy)

# PROGRAM of STUDIES

3

FOR

## Roger Ludlowe High School

FAIRFIELD, CONNECTICUT



1949 - 1950

The curriculum of our high school aims to provide for the greatest mental, moral, and physical growth of the individual consistent with his abilities and suited to his needs as a member of our democratic society.

### THE SELECTION OF A PROGRAM OF STUDIES

The studies pursued in high school should be determined by the pupil's previous record, his natural ability, aptitudes, inclinations, and ambitions. During the first two years the program should be broad and cultural, thus giving the pupil more insight into the possibilities in a variety of fields and the background of skills and common knowledge which most people agree are necessary to understand the present day world.

During the last two years specialization should start so that on completion of his high school course, the pupil will have acquired the pre-vocational skills necessary to go to work in his particular field or the background necessary to continue in college or other institutions of higher learning.

ROGER LUDLOWE HIGH SCHOOL  
Business Education Department

November 10, 1948

Dear Ann,

We need your help! Only by your assistance can the facts be gathered. A survey of the business graduates of the classes of 1945, 1946, and 1947 of Roger Ludlowe High School has been undertaken. The purpose of this survey is to see how well you, as one of these graduates, feel that you were trained for the positions that you have since held. Your answers will help to improve the curriculum and the training offered present and future graduates. Four new office machines have already been added since you were graduated, and various changes in methods and courses made. This shows that we are doing our best to keep abreast of the times and give the best training possible.

I know that you have few spare moments, but we will certainly appreciate it if you will fill this questionnarire out over your morning coffee and mail it back. No names will be used in any report made on the basis of this survey, so feel free to express your opinions and give any suggestions that you may have.

I am hoping for a 100 per cent response, and I shall be anxiously awaiting your reply.

Best wishes for your success,

*Barbara Kunhardt*

Approved: Harold A. Swaffield, Principal  
Enc. 2

ROGER LUDLOWE HIGH SCHOOL  
Business Education Department

January 20, 1949

Dear Ann,

Perhaps the first questionnaire that I sent you arrived just at the time when you were busiest. Therefore I am sending you another which I hope will arrive at a time when you can find a few spare moments to fill it out and return it to me. It takes just about fifteen minutes, and I shall certainly appreciate your effort.

As I told you in my first letter, the purpose of this survey is to see how well you, as one of the recent business graduates of Roger Ludlowe High School, feel that you were trained for the positions that you have since held. Any suggestions that you may have for improving the training of future business graduates will be appreciated.

The response from all three classes, 1945, 1946, and 1947, has thus far been excellent, and I do hope that I may have your questionnaire in the near future.

Sincerely yours,

*Barbara Kunhardt*

Approved: Harold A. Swaffield, Principal  
Enc. 2

## The Editor Speaks Up

(Continued from Page Seven)

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prove the courses in business education at Roger Ludlowe?

Letters and questionnaires have been sent to the business course graduates of the classes of 1945, 1946 and 1947 at the high school to determine how well these graduates feel they were trained for the positions they have held since. The purpose of the survey is to help improve the curriculum and training offered.

There have been speakers at the high school to tell what business demands of the graduates, but so far as we know, this is the first time an attempt has been made to find out how well the graduates, themselves, feel they were equipped by the school to hold their jobs. It is an interesting survey from several aspects, but the response has been slow in coming in, we learn. From the class of 1945, 23 answered; 19 from the class of 1946, and 15 from the class of 1947. This gives 57 answers out of a possible 139.

The questions include What are you doing at the present time; what jobs have you held since graduating; how did you secure your jobs; did you attend a business college after graduation; and if so why; did you have to take tests to secure any of your jobs and if so, what type; what specific skills did you find you were well prepared in by the high school to use on the job; what office machines have you used on any of your jobs; was it necessary to receive any on-the-job training that could have been given in high school; list and check the courses that you found of value as you would rate them; what subjects or in what field would you have liked to have had more training, including those not offered; and what in your opinion would im-

(Continued on Page Eight)