A SURVEY OF TRAVERSE CITY (MICHIGAN) HIGH SCHOOL BUSINESS EDUCATION GRADUATES (1963-1966) TO DETERMINE ADEQUACY OF INSTRUCTION

An Independent Study Education 883

MICHIGAN STATE UNIVERSITY
BERNARD K. ACKERMAN

March, 1968

ACCEPTANCE SLIP

A SURVEY OF TRAVERSE CITY (MICHIGAN) HIGH SCHOOL
BUSINESS EDUCATION GRADUATES (1963-1966)
TO DETERMINE ADEQUACY OF INSTRUCTION

Date _____

Signed _____

ABSTRACT

A SURVEY OF TRAVERSE CITY (MICHIGAN) HIGH SCHOOL
BUSINESS EDUCATION GRADUATES (1963-1966)
TO DETERMINE ADEQUACY OF INSTRUCTION

by Bernard K. Ackerman

The purpose of this study was to determine the degree to which the business education department of Traverse City High School has met the employment requirements of the 1963 to 1966 business education graduates of Traverse City High School living within the United States. Of the 147 questionnaires sent, 110 were returned, for a return rate of 74.6 percent.

Data was compiled for those persons who were currently employed in office positions or had worked in an office within the last six months.

Major findings:

1. Thirty-eight, or 34.5 percent, of the respondents attended one or more terms of college. Of this group, 47.4 percent did so for personal satisfaction rather than for lack of entry-level job skills.

2. Of the 110 respondents, 21.82 percent felt inadequately trained in how to get a job, 32.73 in English skills, 17.27 percent in shorthand, and 12.73 percent in typewriting.

3. General job groupings of general office or clerk-typist contained 51.39 percent of the 72 respondents. An additional 37.5 percent were found in the title areas of secretary and stenographer.

4. Of the 110 respondents, 96.37 percent have worked at some type of paying job since graduation.

5. Eighty-three, or 75.45 percent, of the 110 respondents felt they had acquired adequate business skills in high school.

6. All of the respondents used filing, with the majority using alphabetic filing daily.

7. Over 20 percent of the office workers performed five bookkeeping duties regardless of job title.

8. A wide range of typing skills were used by many of the respondents on a regular basis.

9. Relatively few of the office worker respondents used shorthand consistently.

10. Of the workers who responded, 79.17 percent indicated they transcribed from rough drafts and longhand material. Machine transcription was done by 22.22 percent.

11. Only 12, or 16.67 percent, of the office respondents used some form of electronic data processing skill daily.

12. Newer type duplicating methods were used by 91.67 percent of the office workers, most of them at least weekly. Ditto or mimeograph type equipment was used by 41.66 percent.

13. The most frequently used general office machines were the telephone, electric and manual typewriters, and switchboard.

The telephone was the most often used item as indicated by 94.44 percent of the office respondents.

14. Thirteen, or 18.18 percent, of the office respondents desired additional training on a variety of office machines. Seven, or 9.72 percent, desired acquaintance with additional duplicators.

A SURVEY OF TRAVERSE CITY (MICHIGAN) HIGH SCHOOL BUSINESS EDUCATION GRADUATES (1963-1966) TO DETERMINE ADEQUACY OF INSTRUCTION

An Independent Study
Education 883

By
Bernard K. Ackerman

Business and Distributive Education
Michigan State University

March, 1968

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

General Information. The business courses offered and the courses required at Traverse City High School were the same during each of the four years, 1963, 1964, 1965, and 1966. The teacher factor was constant to the degree that the same persons

TABLE 1.--Courses offered to business majors at Traverse City High School

Name of Course	Length of Course	Grade Offered	Required for Business Graduates
Jr. Bus. Tr. I	1 Sem.	9	yes
Jr. Bus. Tr. II	1 Sem.	9	yes
Typing I	1 Sem.	10-11-12	yes
Typing II	1 Sem.	10-11-12	yes
Typing III	1 Sem.	10-11-12	yes
Typing IV	1 Sem.	11-12	no
Business Arithmetic	1 Sem.	10-11-12	yes
Business Law	1 Sem.	11-12	yes
Office Practice	1 Sem.	12	yes
Bookkeeping I	1 Sem.	11-12	yes
Bookkeeping II	1 Sem.	11-12	yes
Bookkeeping III	1 Sem.	12	no
Shorthand I	1 Sem.	11-12	no
Shorthand II	1 Sem.	11-12	no
Shorthand III	1 Sem.	12	no
Sec. Training	1 Sem.	12	no

taught within the business department during that four-year period of time. The teachers were assigned to the low numbered course levels according to need during any one semester. The advanced typing, bookkeeping, shorthand, and office practice

courses were taught by the same persons each successive semester.

No follow-up study has been done of business graduates. This leaves the business department in the position of not knowing the current status of the business graduates. The graduates might also have constructive comments concerning the present curriculum.

Statement of Problem. The "better life" desired by all people cannot be attained by massive handouts of money, Federal or otherwise. Only when man is educated and trained so that he can earn a respectable living via his own efforts can he hold his head high with pride. He can have self respect and command respect from others as a contributing member of society. The training and educating of this person implies some sort of program or process. Wanous states, "Secondary schools are not considered a luxury... . Every program must be justified by the results it achieves."[1] Justification can come only through research, preferably research applied directly to concrete problems as they exist in the local school system.

Business education has a unique problem in the area of curriculum design. The tremendous rate of change in employment factors, especially technological change, is lulling many business education departments to sleep on a bed of quicksand.

---

[1]S. J. Wanous, "The High School Business Curriculum," National Business Education Quarterly, XXXI (Fall, 1962), P. 43.

No known complaints does not mean the product is a satisfactory one. Business educators cannot assume what was sufficient in instruction five years ago, or even one year ago, is sufficient now. "If the business department in the high school is to keep abreast with the present-day needs of modern business in the community, the business teachers must make an honest effort to revise the business curriculum for vocational training... ."[1] This study was an effort to determine how well the business education department of Traverse City High School has met the employment requirements of its graduates. This information will then hopefully be used to improve the curriculum.

Purpose. To be specific, the purposes of this study were to determine; (1) whether or not the Traverse City High School business education graduates attained the basic skills and knowledge necessary to gain initial employment in an office occupation, (2) what skills and knowledge the business education graduates use in their employment, (3) what skills and knowledge are being used by the business education graduates in their employment for which they feel insufficiently trained, or for which they had no training at the high school level, and (4) the degree of job satisfaction expressed by the business education graduates and their opinions as to why they feel the way they do about their job.

---

[1]Marietta Spring, "Community Surveys Help the Business Teacher," The Balance Sheet, XLVII, No. 4 (December, 1965), pp. 161-62.

To carry out the purposes of this study, answers to a number of questions were sought. Among these questions were the following:

1. What are the job title classifications of the positions in which the business graduates are employed?
2. What percentage of business graduates have worked for pay at any time since graduation?
3. What percentage of business graduates have worked in office occupations either full- or part-time since graduation but are now either unemployed or employed outside the office occupations?
4. What percentage of business graduates are presently working in office occupations either full- or part-time? Why are the rest of the business graduates not working in office occupations?
5. To what degree do the business graduates feel satisfied with their present office employment? What factor concerning their employment gives them the most satisfaction? The least?
6. Did the business graduates feel adequately prepared for initial employment in office occupations after high school graduation?
7. In what knowledges and/or skills do the business graduates feel inadequately trained? Does the graduate feel this inadequacy is of major or

minor importance?

8. For what length of time, if any, and for what reason, was post high school training taken in business education?

9. Do the business graduates use rough drafts? If so, to what extent are they used?

10. How many business graduates have need of using shorthand? Of those who use shorthand, what types of materials do they write and by what method? How often?

11. What methods of transcription are used by the business graduates? How often?

12. How many business graduates use a method of filing; what method? How often?

13. What duplicating machines do the business graduates need to use? What duplicating machines do the graduates use? How often?

14. What types of adding machines and calculators do the business graduates need to operate? What types do they operate? How often?

15. What types of electronic data processing equipment do the business graduates need to operate? What types do they operate? How often?

16. What bookkeeping skills are needed by the business graduates? What skills do they use? How often?

17. What machines and equipment commonly found in offices and not yet herein surveyed do the business graduates need to operate? Which of the machines and equipment do the graduates operate? How often?

18. What additional skills or training would the graduates like to see offered in high school?

Assumptions.

1. Curriculum change and departmental evaluations should be based insofar as possible on objective facts. Therefore, the collection of information in this survey is both necessary and desirable.

2. Traverse City High School business graduates are capable of expressing the true conditions of their employment on the questionnaire supplied to them.

3. Most of the respondents will complete the questionnaire truthfully.

4. This survey will indicate whether or not the business graduates have attained the basic skills and knowledge necessary to gain initial office employment after high school graduation without further training.

5. This survey will indicate the areas, if any, in the business education curriculum which need to be revised or initiated.

Hypotheses.

1. Respondents who work in business offices use a typewriter as their main aid.

2. At least one method of filing is used by a majority of the graduates employed in office occupations.

3. Of those persons who transcribe material at the typewriter, a majority do so from shorthand.

4. Bookkeeping skills are used by certain of the business graduates but very few are in positions as bookkeepers.

5. There are business graduates who need to know skills in the use of electronic data processing equipment.

6. Business education graduates attained the basic skills and knowledge necessary to gain initial employment in an office occupation.

7. A majority of business graduates employed in office occupations will express an opinion of satisfaction with their job.

Delimitations.

1. This study was restricted to students presently living within the United States who graduated from Traverse City Senior High School (public) with a business education diploma during the years 1963, 1964, 1965, and 1966. Requirements for a business diploma are at least an average of "C" on an approved program of all courses taken during grades 10, 11, and 12.

2. The data used to compile the percentages concerning what is presently being done in office occupations is further restricted to those who are currently working in office positions or have worked in office occupations within the past six months.

Limitations.

1. The sample chosen of all 1963, 1964, 1965, and 1966

business education graduates may not be representative of the parent population which includes all previous business education graduates of Traverse City High School.

2. The responses of the one (1) person residing outside the United States might have slightly changed the percentage figures reported. (Her address and work status is unknown to her parents.)

3. The responses of the four (4) persons who could not be contacted, but are believed to be within the survey area, might have changed the percentage figures reported.

4. The responses of those not returning the questionnaire might have changed the percentage figures reported.

5. Probably many of those who did not graduate with a business diploma during 1963, 1964, 1965, and 1966, but had some business courses, are employed in office occupations.

Need for the Study. Curriculum changes and departmental evaluations in business education should be based insofar as possible on objective facts concerning occupational requirements. "Increasingly, businessmen are demanding improvements in business education."[1] The need for a study such as this seems to be self-evident when one considers the fact that no previous study has been done of the business education graduates of Traverse City High School. "There is a need for grave concern

---

[1]Lenell M. Slaten, "Business Subjects in the Secondary School Curriculum," The Balance Sheet, XLVIII, No. 4 (December, 1966), p. 159.

and careful study of the nation's secondary schools to determine the adequacy of business curriculums."[1]

The author feels the constantly changing business world with its ever shifting employment opportunities and requirements requires the schools to keep fully informed of the latest information available. It is felt there are few, if any, better sources of up-to-date information than the persons currently working within the actual employment situation.

---

[1]Ibid., p. 160.

CHAPTER II

RELATED LITERATURE

General Information. A large amount of material concerning follow-up studies and trends in job content was found. This indicated some degree of concern by many persons in all parts of the United States about some of the relationships between what is being taught in the classroom and the requirements in the world of work. It is significant that many others have questions in their minds concerning the adequacy of program content and student needs.

Schools such as Traverse City High School which profess to be basically "college prep" in philosophy are missing to a greater or lesser degree a very important segment of the school population. This segment is the large group of youngsters who do not finish college. The basic necessity of getting food and shelter will force most of this group to find work very soon after graduation from high school. Are they trained in some skill to the degree they can obtain a job and keep it? It is not only the concern but should be the duty of each teacher to know if he is training for employment at the level employers demand. He should know about any shifting demands being made of his former and present students and change his methods accordingly.

At this point, lest the high schools branch out into trying to do all things for all people, a note of caution must be sounded. Some division of functions must be maintained between the various levels of education. No one level can hope to teach all things. A limit in the amount of things possible to be taught is reached at some point on the continuum, though just where this point is reached is open to debate. The limitations of physical plant space and money usually require making any improvements close to, or within, the present curriculum structure.

The needs of graduates in any one geographic area are felt to be somewhat different than the needs of those in any other given geographic area. Thus the findings in other studies must be examined for similarities in background conditions to those of the graduates of Traverse City High School before being applied. Only after careful comparison can one be sure a finding from any given geographic area is applicable to another area.

Several summaries of job requirements and trends were found in the literature. If these same findings are also found to be true by this study for those persons being surveyed, a basis for evaluation of the present business curriculum could be more strongly established.

LITERATURE AND FOLLOW-UP STUDIES

Findings Concerning Shorthand. A study done in Syracuse, New York, was reported in New Perspectives in Education for Business. Of the 14 job titles investigated, one out of every four workers was found to be employed in the general job classification of stenographer. The four general job classifications reported as employing the greatest number of office workers were stenographer, general clerk, typist, and accounting clerk. These four classifications accounted for 63 percent of the office employees reported in the study.[1] "Stenographers and secretaries are expected to continue to have a wider choice of jobs than persons with typing skills only."[2]

The findings given above were substantiated by others. Blackstone reported that by 1975 there will be 13.7 million persons working in offices. "...not even 3 in 10 office jobs require stenography."[3] He goes on to say that nonstenographic fields should have more emphasis than they do at present.

Ward found of the 38 female employees having shorthand,

---

[1]Doris H. Crank and Floyd L. Crank, New Perspectives in Education for Business (Washington, DC: National Business Education Association, 1963), p. 14.

[2]Ibid., p. 13.

[3]Bruce I. Blackstone, "The Office Worker and His Education," Journal of Business Education, XXXVIII (October, 1962), p. 27.

33 used it on their office jobs. Ten of the 25 employers surveyed stated they would pay more to those persons with shorthand skills.[1]

Even more definite than the studies so far mentioned is the one by Sister Gervase Parpart, DC, who found that "shorthand was used on the job by 126 (61.8 percent) of the respondents; ... ."[2] These studies as well as others point to continued use of shorthand at the same level, or higher, than at the present time. Some pointed out the degree of use depended to some extent on the level of proficiency attained at the skill.

Some persons were afraid of the effects of automation on office workers. Throughout history man as feared that which he did not understand. Patchen reported, "Automation has touched our shorthand classes only in that the demands are for more and more well-trained stenographers, not fewer."[3] Here is at least one person who did not see a threat to this skill area from automation. A majority of the rest of the authors thought

---

[1]Raymond A. Ward, "A Survey of Employers in Selected Business Firms in Grand Forks, North Dakota to Determine the Office Requirements for Clerical and Secretarial Workers" (Unpublished Master's thesis, University of North Dakota, 1962), abstract.

[2]Sister Gervase Parpart, DC, "A Study to Determine the Effectiveness of the Business Curriculum of the Immaculate Conception Academy, Washington, D.C., in Reference to Office Skills and Personal Qualifications Requisite for Successful Federal Government Employment" (Unpublished Master's thesis, The Catholic University of America, 1961), abstract.

[3]E. A. Patchen, "Automation Affects Secondary Business Education," Journal of Business Education, XXXVII (February, 1962), p. 193.

automation would be felt most at the lower levels of office job classifications.

On the other hand, Davitt found in a follow-up study that "Shorthand and history were considered least valuable business and nonbusiness high school subjects."[1] The rest of the report shows straight typing as the most frequently used office skill. This also shows why several studies should be reviewed before conclusions are drawn.

In summary, the shorthand skill is used extensively by those well trained in its use. Others report varying degrees of use and satisfaction. The demand seems to be holding steady, or advancing, in percentage of office workers employed. Automation has had very little effect on the use of shorthand.

Findings Concerning Machine Transcription. Not much material was found discussing this topic. What there was seemed confusing owing to the nature of the findings. Studies and authors from various parts of the United States found varying degrees of use of transcription machines.

Falk found "transcription machines continue to be used in increasing numbers in both large and small offices."[2] This in essence is the feeling of most of the reports read. Some of

---

[1]John J. Davitt, "A Study of the Business Department and Its Graduates of Alexander Ramsey High School" (Unpublished Master's thesis, University of Minnesota, 1959), abstract.

[2]Ruel F. Falk, "A Survey to Determine the Number and types of Office Machines Used in Appleton, Menasha, Nenah, and Oshkosh, Wisconsin, and Some of the Implications of Automation for the Teaching of Office Machines" (Unpublished Master's thesis, University of Wisconsin, 1965), abstract.

the others found almost the reverse of this. Extent of mechanization of offices might account for some of this disagreement of findings. Size of industry would often have much effect also. Trimble found about 13 percent of his respondents used a transcriber.[1] This is not a large figure when the near 80 percent figures are considered for shorthand users.

In summary, no consensus was found as to amount of use nor importance in training for use with machine transcription. Most studies agreed that training is necessary but disagreed as to the depth and amount. Possibly the results of each study depend on local factors which varied to a great degree among the various geographic areas surveyed.

Findings Concerning Office Automation. Most of the articles and studies read agreed on the degree and effects of automation in office occupations. A representative example of the feelings is expressed by Carter from a study done in Denver:

> A majority of the companies with and without regular training programs emphasized data-processing courses for the high schools at the junior and senior levels; key punch, sorter, tabulator, and reproducer equipment, objectives of business applications, machine acquaintance, and occupational information; entrance requirements such as machine interest, tests, and inclination to detail... ."[2]

---

[1]Dale Trimble, "A Survey of Office Machines Used in Selected Offices in the Owosso and Corunna, Michigan, Area" "Unpublished independent study, Michigan State University, 1966), p. 40.

[2]Deane Milton Carter, "A Study of Office Training Programs for Data-Processing Personnel in Selected Businesses in Metropolitan Denver, Colorado, with Implications for Business Education in the Secondary Schools" (Unpublished Ph.D. dissertation,

So far as job implications resulting from data-processing are concerned, Anderson stated "Small, medium, and large sized offices are using more business data-processing machines to perform routine tasks efficiently and accurately."[1] Most of the jobs affected involved posting, checking and maintaining records, filing, making computations, tabulating information, use of key punch, and related machines operations.[2]

The general consensus of opinion is that the levels of office occupations such as stenographer, typist, and office manager are little affected by office automation at present. Some portions of these jobs will change in the future though, although this is the area in which the authors do not agree. It is generally felt that only the routine portions of office jobs will be affected.

Summary of findings concerning office automation can be summed up by stating the "numbers of automatic electronic systems handling business applications have grown ... more than 6,700 percent is found for the 1951-1958 period."[3] This rate of increase is bound to have effect on office occupations. The

---

State University of Iowa, 1965), abstract.

[1]Mary Jane Andersen, "Integrating Office Automation Knowledge in High School Business Education" (Unpublished Master's thesis, Mankato State College, 1965), abstract.

[2]Helen Wood, "Trends in Clerical Employment," Business Education World, XLII (November, 1961), p. 19.

[3]Mary Adele Frisbie, "Emerging Electronic Data Processing and Its Relation to Office Employment and Costs, 1930-1957; And Implications for Business Training" (Unpublished Ph.D. dissertation, New York University, 1961), abstract.

amount of change will only be known with the passage of time. At present only the so-called "low level" jobs have been greatly affected by being relieved of the routine, repetitive type activities.

Findings Concerning Satisfaction With Job. Most studies indicated more than 50 percent of the respondents were satisfied with their office positions. A small number (less than 20 percent) were found to be dissatisfied. Bratt reported "sixty percent of the questionnaires indicated satisfaction... ."[1]

Findings Concerning Bookkeeping Skills. Most of the material read concerning bookkeeping concluded the bookkeeper's duties have changed since the introduction of automation. "The job title of bookkeeping operation has become more specialized."[2] More specialization calls for more education and training. One of the studies showed bookkeeping to be the course most often listed by the business graduates as least helpful.[3]

Roman stated that, since industry requires that "office automation and accounting be co-ordinated with management, there is a great need for high school students to prepare for such

---

[1]Marilyn Rothney Bratt, "A Follow-Up Study of the 1963-1964 Business Education Graduates of East Detroit High School to Determine the Effectiveness of their Business Training" (Unpublished independent study, Michigan State University, 1965), p. 36.

[2]M. Claire O'Brien, "Automation, Office Occupations, and Business Education," Business Education Forum, XVIII (October, 1963), p. 26.

[3]Bratt, abstract.

positions with good, solid bookkeeping courses."[1]

In summary, these studies have found the job of bookkeeper changing and often disappearing. They say the bookkeeper must now be trained differently for a new type of job. There is now more need for interpretation skills and procedures for integrating the material with other facets of business operation. Less emphasis is expected on the routine record keeping skill portion of bookkeeping.

Findings Concerning Machines. By far the most used machine by those in the office occupations is the typewriter. Typewriting is the one skill which office executives agree cannot be learned completely on the job. The use of the typewriter is basic to most jobs in a general office.[2] Studies, such as by Trimble, consistently reported that more manual typewriters than electric ones were being used. About 20 percent of the offices also reported using key driven caluclators.[3]

After typewriters, adding machines were as the next most used office machine.[4]

---

[1]John C. Roman, "Automation's Challenge to Business Education," Business Education World, XLII (November, 1961), p. 22.

[2]Doris Anita Berry, "Typewriting: General Office Assignment Number One," Business Education Forum, XIX (November, 1964), p. 7.

[3]Trimble, p. 40.

[4]Elaine Dymczyk, "A Follow-Up Study of Selected Graduates of the Cromwell, Connecticut, High School to Determine the Effectiveness of High School Business Courses as Preparation for Positions in Business." (Unpublished Master's thesis, Central Connecticut State College, 1965), abstract.

Findings Concerning Graduate's Training. The one recurring theme in the studies reviewed was the necessity of training high school students to think. Other necessities were to improve skills in problem-solving, leadership, self-discipline, self-direction, and decision making.[1]

Continued emphasis is urged for thoroughly learning fundamental skills such as typewriting, shorthand, secretarial practice, and bookkeeping.

A majority of the respondents in each of the studies investigated reported they "felt adequately prepared for full-time office positions."[3]

Another finding which was interesting to note in this age of automation was the need for thorough instruction in alphabetic and numeric filing for office occupations."[4]

Implications of the Findings.

1. Most of the material studied agreed shorthand was, and will continue to be, a necessary skill for secretaries. Female workers with the skill at most office job levels will find it easier with the skill to get a job than will those without the skill.

---

[1]Roman, p. 22.

[2]Ibid.

[3]Bratt, p. 36.

[4]Edwin E. Weeks, "A Study of Expressed Employment Needs of Employers in the Syracuse Metropolitan Area with Implications for the Office Occupations Program in the Syracuse Public Schools" (Unpublished Ed.D. dissertation, Syracuse University, 1961), abstract.

2. Specific skills such as shorthand, typing, and filing should be learned well enough to survive at entry level office jobs.

3. Bookkeeping skills should be changed from the learning of recording steps to those of interpretation and work flow.

4. Introductory-level knowledge and job possibilities concerning electronic data processing should be stressed.

5. Displacement of office workers will be felt most at the lower job levels. Stenographic and secretarial jobs have not yet been changed appreciably by automatic data processing.

6. A ratio of about two to one of manual and electric typewriters was found in "average" offices. Students should have job proficiency on both kinds, at least at the entry level.

7. Students should be trained more thoroughly in thinking logically, in problem-solving, and in interacting effectively with other persons.

8. A decision must be made at some point as to what depth of training and educating the high school will provide.

CHAPTER III

METHODS AND PROCEDURES

The most desirable method of obtaining information necessary to answer the questions raised in the introduction portion of this study is that of the direct interview. In considering the geographic spread of those in this survey, the cost of direct interviews would exceed by several times the limited personal budget for this study.

The values and limitations of the survey method were weighed. The values are: (1) such knowledge can provide a basis of comparison if similar data are available from an earlier time. Trends or shifts can be noted and may provide clues for future action; (2) current weaknesses and strengths can be revealed through the knowledge of what the situation is presently; and (3) survey data are often used as the basis for making decisions.[1]

After careful study a decision was made to use the questionnaire for the survey instrument, as this method of gathering data allowed the widest possible coverage with a minimum of money and effort.

---

[1]Lawrence W. Erickson and Mary Ellen Oliverio, "Evaluative Criteria for Survey Instruments in Business Education, Monograph 111," (Chicago: South-Western Publishing Co., 1964), p. 4.

Construction of the Questionnaire.[1] The questionnaire was constructed by the author. Several refinements were made after criticisms were obtained from persons in a research seminar, the seminar director, other students at Michigan State University, and nine recent high school business graduates. The finished questionnaire consisted of four sheets of check charts.

General areas of information sought by the questionnaire were:

1. What areas of office occupations are the graduates presently employed in?
2. What office machines are the graduates operating?
3. To what degree are the graduates using skills in filing, typing, shorthand, bookkeeping, and transcription?
4. What skills or knowledge do the graduates need in their jobs for which they either were not trained, or had insufficient training, in high school?
5. What percentage of graduates took post high school training in business education? How much, and why?
6. Opinions concerning satisfaction with present job and concerning adequacy of high school training for their first full-time job.

Survey Population. A list of all (1963-1966 inclusive) business education graduates was obtained from official graduation

---

[1]See Appendix A for sample questionnaire.

lists. A file card was typed for each person with information obtained from school records as to last known local address, parents' names, telephone number, and work experience data. Each family still living within a toll free area surrounding Traverse City, Michigan, was contacted by telephone to obtain current addresses and employment status of the graduates and to enlist cooperation in completing the questionnaire. Those families outside the toll free area were contacted concerning the same information by use of a post card, return card technique.

The survey population of all graduates for the years 1963, 1964, 1965, and 1966 was chosen because (1) the teacher factor in the business department was constant during this time in terms of persons teaching, (2) graduates of 1967 have not had sufficient time to complete any post high school education and settle down to a relatively permanent, full-time job. Earlier graduates have had a chance to sample job offerings and settle in the one they think is most desirable (and of course attainable), (3) the graduates for years prior to 1963 have probably forgotten merits and shortcomings of high school courses as well as initial employment, and (4) a large portion of graduates for years prior to 1963 are married and not working.

All persons in the survey population who did not return the questionnaire within four weeks were contacted with a follow-up letter. Those living within the telephone toll

free area surrounding Traverse City, Michigan, were also contacted by telephone urging them to complete and return the questionnaire.

Data were compiled as received by entering in replicas of tables used in this study which were drawn on a large sheet of cardboard. Eight weeks after the first questionnaires were sent, the data were grouped into totals, changed to percentages of the total responding, and analyzed in this study.

CHAPTER IV

PRESENTATION OF DATA

The purpose of this study was to determine the effectiveness of the high school education and training received by Traverse City High School business education graduates. A total of 147 questionnaires were mailed and 110 returned for a return of 74.8 percent.

Table 2 shows the rate of return. Based on rate per class of returns, each class achieved close to the average of 74.8 percent. Thus each class is represented at about the same ratio in this study.

TABLE 2.--Number of questionnaires returned by Traverse City High School business graduates, 1963-1966

Year Graduated	Questionnaires Sent	Number of Returns	% of Returns for Year	% of Total Returns
1963	27	19	70.37	17.3
1964	45	33	73.33	30.0
1965	40	31	77.50	28.2
1966	35	27	77.14	24.5
Totals	147	*110		100.0

*74.8 percent of questionnaires sent.

Post High School Education. Table 3 shows thirty-eight business education graduates (34.5 percent of the 110 returns) attended one or more terms of post high school education. Table 3 also shows that 24 (63.2 percent) of the 38 business graduates attended one year or less of post high school classes. Eleven, or 29 percent, of the 38 took two or more years of post high school training. The non-office jobs reported account for 4 of the 11 with 6 or more terms of advanced training.

TABLE 3.--Number of terms of post high school education taken by 38 Traverse City High School business graduates, 1963-1966

Year Graduated	No. With Post High School Education	No. of Terms Post High School Education						
		1	2	3	4	5	6	7 or More
1963	5	1	-	3	-	-	1	-
1964	14	2	2	2	1	-	4	3
1965	10	1	2	3	1	-	2	1
1966	9	1	3	4	1	-	-	-
Totals	*38	5	7	12	3	-	7	4

*34.5 percent of the base (110 returns).

Table 4 shows over 26 percent (1963 had fewest who took post high school education with 26.3 percent) of each year's respondents indicating they took 1 term or more of post high school education. The largest number of responses indicating having taken post high school education came from business education graduates of 1964 (42.4 percent).

TABLE 4.--Number who took post high school education of 110 Traverse City High School business education graduates, 1963-1966

Year Graduated	No. of Responses	No. Having Post High School Education	% of Responses Per Class	% of Total
1963	19	5	26.3	4.5
1964	33	14	42.4	10.3
1965	31	10	32.3	9.1
1966	27	9	33.3	8.2

Table 5 summarizes the reasons that respondents gave for attaining additional training beyond high school. A total of 18, or 74.4 percent, of 38 business graduates pursuing additional

TABLE 5.--Rank order of reason(s) that 38 Traverse City High School business graduates attended post high school, 1963-1966

Reasons	Number of Responses	% of Total Returns
Combination of reasons	11	10.00
You wanted to sample college life	11	10.00
*Wanted a broader educational background	7	6.4
Needed training to advance on job	4	3.64
Parents wanted you to get more training	3	2.73
High school skills not adequate to get job	1	.91
*Wanted to be a teacher	1	.91
Employer asked you to attend	-	-
Friends convinced you to go	-	-
Total	**38	

*Listed under "other" classification
**34.5 percent of the 110 returns.

studies did so for personal satisfaction, rather than for lack of sufficient skills for employment. An additional 11 of the 38, or 29 percent, indicated a combination of reasons. The reason for this is not clear, but it could point to a complex answer containing segments of direction of counseling emphasis and work structure in the adult community. Only one person reported inadequate skills to obtain a job in the field of business. These results are an indication that Traverse City High School business graduates receive sufficient training to be employable in the field of business directly after graduation.

Inadequate Training. Table 6 points out several areas which need consideration. Of the 110 respondents, 14, or 12.73 percent, indicated they did not receive sufficient training in typing. Nineteen, or 17.27 percent, indicated a lack of shorthand skills and 11, or 10 percent, indicated a lack of skill in

TABLE 6.--Rank order of areas in which 110 Traverse City High School business graduates felt inadequately trained, 1963-1966

Area	Number of Responses	Importance	
		Major	Minor
English Skills	36	23	13
How to get a job	24	4	20
Shorthand	19	12	7
Typewriting	14	7	7
Business math	11	2	9
Bookkeeping	7	2	5
Business machines	4	2	2
Business law	1	-	1
Speech	1	1	-
Totals	117	53	64

the use of business mathematics. Investigation of several respondents indicating a lack in one or more areas showed they achieved only at a low level in school in these areas. Several of the respondents indicating a lack of shorthand skills had not taken more than one semester in the series. At least two of the respondents indicating a lack in shorthand skills had not taken even one semester.

The deficiency in English skills indicated in Table 6 by 36, or 32.73 percent, of the respondents merits careful consideration also. At present little emphasis is placed in this area in business education classes.

Lack of information on how to get a job was indicated by 24, or 21.82 percent, of the respondents. Additional emphasis on this topic seems to be desired.

Job Satisfaction. Eighty-five percent of the graduates now working expressed themselves as being either satisfied or highly satisfied with their present position. Table 7 also shows 3

TABLE 7.--Degree of satisfaction with present job as expressed by 83 currently employed Traverse City High School business graduates, 1963-1966

Degree of Job Satisfaction	Number of Responses	% of Total Employed
Highly satisfied	41	49.4
Satisfied	30	36.1
Indifferent	3	3.6
Dissatisfied	1	1.3
Very dissatisfied	3	3.6
No response	5	6.0
Totals	83	100.0

persons expressed indifference and 3 were very dissatisfied with their present job. None of these six worked in an office; they held the following jobs: retail clerk, telephone operator, armed forces, fudge sales-lady, and cabinet cleaner. Those working with the business skills for which they were trained in high school appeared to be satisfied with their positions.

Job Titles. In Table 8 the rank order of specific job

TABLE 8.--Rank order of current specific job titles of 110 Traverse City High School business graduates, 1963-1966

Specific Job Titles	Number of Responses	% of 110 Responses
Not Working	27	24.55
Clerk Typist	18	16.36
Secretary	18	16.36
General Clerk	9	8.18
Bookkeeper	8	7.27
Stenographer	5	4.55
Telephone Operator	5	4.55
Receptionist	3	2.73
Typist	3	2.73
Data Processing	2	1.82
Executive Secretary	2	1.82
Legal Secretary	2	1.82
Nurse	2	1.82
Beautician	1	.91
File Clerk	1	.91
Laborer	1	.91
Laboratory Technician	1	.91
Motel Manager	1	.91
Retail Clerk	1	.91
Totals	110	100.02

titles in the classifications of clerk typist and secretary indicates that the largest percentages are grouped with 16.36 percent of the respondents in each. A few persons were found

in each of the other classifications including several non-office jobs such as nurse, retail clerk, beautician, etc.

For many years the business department has pursued a course of training and educating in basic office skills and knowledge rather than for specific office positions. The findings shown in Table 9 seem to support this decision. Thirty-seven point five

TABLE 9.--Rank order of general job title classifications held by 72 Traverse City High School business graduates currently employed in offices, 1963-1966

General Job Titles	Number of Responses	% of Total
Secretary	22	30.56
Typist	21	29.17
General Office	16	22.22
Bookkeeper	8	11.11
Stenographer	5	6.94
Totals	*72	100.00

*62 presently working in office positions and 10 who have worked in an office within the last 6 months.

percent of the reporting office workers held the general job titles of secretary and stenographer. An additional 51.39 percent were in general office or clerk typist positions, with over 11 percent classified as bookkeepers. These findings were about as expected, except for the bookkeeping classification. In addition, several persons in other jobs, such as data processing, indicated a large portion of their work required using bookkeeping information.

Work Record. One hundred six of the 110 respondents (96.37

percent) have worked at some type of paying job, as shown in Table 10.

TABLE 10.--Full- and part-time work record (since graduation) of 110 Traverse City High School business graduates, 1963-1966

Work Record	Yes	No	Full Time	Part Time
Have you held a paying job at any time?	106	4	101	5
Are you presently working in an office occupation?	57	53	50	7
Have you worked in an office occupation in the past but are not now?	34	45	23	11

Fifty-seven point eighty-one percent of the respondents are presently working in an office occupation. An additional 34 (30.91 percent) have at some time in the past worked in an office position but are not working there now.

Not Presently Working in an Office. Table 11 points out

TABLE 11.--Rank order of reasons that 48 Traverse City High School business graduates were not now working in an office, 1963-1966.

Reasons	Number of Responses	% of 110 Not In Offices
Are a housewife	22	20.00
In college	8	7.27
No response	6	5.45
Maternity leave	5	4.55
Low pay	3	2.73
In service	2	1.82
Lack adequate skills	2	1.82
Totals	48	43.64

that 43.64 percent of those responding to the questionnaire were not now working in an office. Of these, 20 percent listed "housewife" as their reason with the remainder of the reasons spread fairly evenly throughout the other categories.

Adequacy of Business Skills. Table 12 indicates that 75.45 percent of the 110 respondents feel they acquired adequate

TABLE 12.--Opinions concerning adequacy of business skills for first office job as expressed by 110 Traverse City High School business graduates, 1963-1966

Type of Response	Number of Responses	% of Total
Yes	83	75.45
No	2	1.82
Have not had an office job	23	20.91
No response	2	1.82
Totals	110	100.00

business skills in high school for their first job. Only two persons, or 1.82 percent, felt they received inadequate training. The rest had either not held an office job (20.91 percent) or did not respond (1.82 percent). This indicates the business department is apparently doing an adequate job of training for entry-level positions.

Most and Least Liked Aspects of Office Work. A majority of 56.94 percent of the 72 office workers responding to this question said the most liked aspect of their job was the type of work.

The next most liked aspect shown in Table 13, with 20.83 percent of the responses, was that of working conditions. Table 14 shows that 16.67 percent of the office workers disliked having a job so close to home. Almost 28 percent could not find anything to dislike about their job.

TABLE 13.--Rank order of work factors indicated as most liked by 72 Traverse City High School business graduates now working, or who have worked within six months, in an office, 1963-1966

Work Factors	Number of Responses	% of Total
Type of work	41	56.94
Working conditions	15	20.83
Co-workers	10	13.89
Boss	4	5.56
Located close to home	2	2.78
Totals	72	100.00

TABLE 14.--Rank order of work factors indicated as least liked by 72 Traverse City High School business graduates now working, or who have worked within six months, in an office, 1963-1966

Work Factors	Number of Responses	% of Total
No dissatisfaction	20	27.78
Located close to home	12	16.67
Working conditions	8	11.11
Co-workers	7	9.72
Salary	7	9.72
No response	7	9.72
Boss	6	8.33
Type of work	5	6.94
Totals	72	99.99

Filing Skills. Table 15 shows that alphabetic filing was used by 91.67 percent of the office workers. The next most often used method is that of numeric filing with 63.89 percent responses. Fifty percent of the office workers checked subject filing. The least used method is geographic filing. The above figures indicated continued emphasis should be placed on the filing section of the office practice class. None of the special methods of filing were listed as write-ins. The high frequency with which each method of filing was used further indicates its importance to the female office worker.

TABLE 15.--Filing systems and frequency of use by 72 currently employed Traverse City High School business graduates, 1963-1966

Name of Filing System	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Alphabetic	61	-	3	2	66	91.67
Subject	25	10	1	-	36	50.00
Geographic	10	4	1	1	16	22.22
Numeric	38	6	2	-	46	63.89

Bookkeeping Skills. Duties in the area of bookkeeping were performed by a larger number of person than expected. Table 16 shows five of the duties were performed by over 20 percent of the office workers. These most frequently performed duties were in the areas of petty cash, purchasing, accounts receivable, accounts payable, and banking papers. All of the bookkeeping activities except State Taxes were checked by over 16 percent of the office workers as shown in Table 16.

TABLE 16.--Name and frequency of bookkeeping tasks performed by 72 currently employed Traverse City High School business graduates, 1963-1966

Bookkeeping Tasks	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Petty cash	18	5	-	-	23	31.94
Purchasing	12	3	1	-	16	22.22
Payroll	5	5	-	2	12	16.67
Inventory	4	1	6	3	14	19.44
Acct. receivable	16	2	2	1	21	29.17
Acct. payable	12	2	1	1	16	22.22
Banking papers	13	1	2	-	16	22.22
State Taxes	-	1	1	-	2	2.78
University budget	1	-	-	-	1	1.39

Typewriting Tasks. Table 17 points out that typewriting tasks were performed extensively by the currently employed respondents. A careful look at the daily and weekly usage columns indicated a wide range of typing tasks were used by many of the workers on a regular basis. This corresponds with job tasks normally associated with the two main job classifications of secretary and clerk typist held by graduates (Table 8).

All typewriting tasks were checked by over 25 percent of the workers. Major frequency of usage seems to occur in the following areas: business letters, composing letters, tabulations, form letters, and reports. The frequency with which letters were composed by the graduate indicated much emphasis should be placed on this task in the classroom.

The high frequency of persons typing from rough drafts pointed out the need for continued emphasis on typing this

material in finished form efficiently. This in turn would point to a problem-type course in advanced typing as opposed to the mainly straight-copy type course.

TABLE 17.--Type and frequency of typewriting tasks performed by 72 currently employed Traverse City High School business graduates, 1963-1966

Typewriting Tasks	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Business letters	38	9	2	2	51	70.83
Tabulations	29	7	5	2	43	59.72
Form letters	28	9	6	-	43	59.72
Filling in forms	33	9	3	1	46	63.89
Composing letters	20	13	3	2	38	52.78
Reports	14	13	10	4	41	56.94
Stencils	4	11	-	4	19	26.39
Dittos	8	11	1	2	22	30.56
Invoices	11	5	3	1	19	26.39
Memos	28	5	3	3	39	54.17
Rough drafts	16	8	4	3	31	43.06

Shorthand Tasks. As shown in Table 18 shorthand was used most often for taking telephone messages. Most of the persons

TABLE 18.--Type and frequency of shorthand tasks performed by 72 currently employed Traverse City High School business graduates, 1963-1966

Shorthand Tasks	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Dictation	15	2	2	1	20	27.78
Telephone messages	29	5	-	1	35	48.61
Instructions	18	1	-	-	19	26.39
Minutes	1	3	1	-	5	6.94
Memos	17	1	-	-	18	25.00
Personal use	16	5	1	-	22	30.56

who used shorthand skills did so daily. Only 27.78 percent actually used shorthand for taking formal dictation of letters. Most of the female students are graduated from a clerk-typist track of courses due to their inability to handle advanced shorthand and bookkeeping. This could account also for the level of jobs they occupy in offices and the degree to which they use shorthand skills.

The author does not teach shorthand. It was surprising to note though the 30.56 percent who made personal use of shorthand skills. Possibly many of these workers do not have occasion to use the skill on their job.

Transcription Tasks. Table 19 shows transcription from shorthand notes was made by only 31.94 percent of the office workers. This corresponds to the information obtained about the general usage of shorthand. Use was made of machine transcription by 22.22 percent of the workers. Increased emphasis on the proper use of this tool is suggested.

TABLE 19.--Type and frequency of transcription tasks performed by 72 currently employed Traverse City High School business graduates, 1963-1966

Transcription Tasks	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Shorthand notes	18	2	1	2	23	31.94
Machine	7	7	2	-	16	22.22
Longhand material	24	5	1	1	31	43.06
Rough drafts	15	7	2	2	26	36.11

Most of the workers, a total of 79.17 percent, transcribed from rough drafts and longhand material. This information also indicates that a problem-oriented advanced typing course is needed.

Electronic Data Processing. Table 20 shows that a small group (16.67 percent) of the office workers used electronic data processing skills daily. About 32 percent of the workers used the skills to some degree on their job. The order of importance is; bookkeeping machine, 11.11 percent; key punch, 4.17 percent; and collator, 4.17 percent.

TABLE 20.--Type of data processing machine and frequency of use for 72 currently employed Traverse City High School business graduates, 1963-1966

Types of Data Processing Machines	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Key punch	3	-	-	-	3	4.17
Tape punch	1	-	-	1	2	2.78
Verifier	2	-	-	-	2	2.78
Sorter	2	-	-	-	2	2.78
Collator	2	1	-	-	3	4.17
Bookkeeping	1	4	2	1	8	11.11
TWX	-	1	-	-	1	1.39
Proof	-	-	-	1	1	1.39
Computer	1	-	-	-	1	1.39

The low frequency of Data Processing would point to two facts: The present system does not provide sufficient training so that graduates can find entry-level positions or there is no need for training on specific machines as there are few job opportunities in this area.

Adding and Calculating Machines. Table 21 shows that the 10- and full-key listing machines, used by 41.67 percent and 31.94 percent of the office workers respectively, were the most frequently used machines in this category. Table 21 shows that a rotary calculating machine was operated by 15.28 percent of the workers, followed by 11.11 percent who used a 10-key printing machine. At present the emphasis in the office machines course is on the printing type adding machines; however, the emphasis should be changed to 10- and full-key listing machines. Most of the persons who used a machine did so on a daily basis.

TABLE 21.--Type of adding and calculating machines and frequency of use by 72 currently employed Traverse City High School business graduates, 1963-1966

Type of Adding and Calculating Machines	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
10-key listing	21	4	4	1	30	41.67
Full-key listing	18	3	2	-	23	31.94
10-key printing	6	2	-	-	8	11.11
Full-key printing	6	1	-	-	7	9.72
Key-driven	--	-	-	-	--	----
Rotary	5	1	3	2	11	15.28

Duplicating Equipment. The newer type duplicating methods, such as photocopy, xerox, verifax and thermo-fax were used by 91.67 percent of the responding office workers. Most of the respondents used one of the methods at least weekly. Table 22 shows that the ditto- or memeograph-type equipment was used by

approximately 20 percent of the workers and most of them used the equipment at least weekly. The high rate of usage in the newer processes of duplicating was accompanied by an almost complete lack of school instruction in their use. This lack of instruction could be easily remedied as several of the machines are located in the high school complex.

TABLE 22.--Type of duplicating process and frequency of use by 72 currently employed Traverse City High School business Graduates, 1963-1966

Type of Duplicating Process	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Ditto-type	11	2	-	1	14	19.44
Mimeograph	7	5	1	3	16	22.22
Photocopy	13	9	3	2	27	37.50
Xerox	17	5	1	-	23	31.94
Verifax	2	-	-	2	4	5.56
Thermo-Fax	7	1	4	-	12	16.67

General Machines. The four most frequently used general machines in the office were the telephone, electric typewriter, manual typewriter, and switchboard, as shown in Table 23. The telephone was used by 94.44 percent of the respondents which makes it by far the most often used item in the general machines category. Increased and improved training is needed by Traverse City High School business graduates in the use of the telephone. Inadequate telephone training mentioned by office workers included such things as how to say "no" gracefully, how to stay calm while talking to an angry customer, and how to ask for information.

TABLE 23.--Names of general machines and frequency of use by 72 currently employed Traverse City High School business graduates, 1963-1966

Types of General Machines	Frequency of Use					
	Daily	Weekly	Monthly	Less Than Monthly	Total Using Skill	% of Total
Telephone	67	1	-	-	68	94.44
Electric typewriter	36	3	2	1	42	58.33
Manual typewriter	36	2	1	2	41	56.94
Flexowriter	-	-	-	1	1	1.39
Switchboard	6	4	1	2	13	18.06
Teletype	5	2	-	1	8	11.11
Cash register	9	-	-	-	9	12.50
Billing machine	3	1	2	-	6	8.33
Blueprint machine	-	-	-	1	1	1.39

The ratio of workers, 58.33 percent, who used the electric typewriter and 56.94 percent who used the manual typewriter was about as expected. Most persons who used only one typewriter used a manual. Most office workers that used an electric typewriter also used a manual typewriter. This information should direct the business department toward continuing to teach all basic classes on manual machines and possibly the advanced classes on electric machines.

The use of a flexowriter by only one person on a less than monthly basis was far less than expected. One of the largest local employers makes extensive use of this machine.

The use of a cash register by 12.5 percent of the office workers indicates training on this equipment might be desirable. At present there is no training available at the high school in any area of distribution. A basic distribution course is intended

for the near future, possibly next fall. This area of the curriculum will be enlarged and up dated as soon as possible.

Additional Skills Needed. All areas mentioned by graduates as being desirable were mentioned by more than one person. Table 24 shows that 13 persons (18.06 percent of the workers) desired experience with additional types of office machines such as adding, calculating, and bookkeeping machines. The next most mentioned item was that of additional types of duplicators, mainly those of a photo or heat process.

TABLE 24.--Rank order of additional skills or training the 110 Traverse City High School business graduates would liked to have had while in high school, 1963-1966

Skills or Training Desired	Number Responses	% of Total
Additional calculators, bookkeeping machines	13	18.06
Use additional duplicators	7	9.72
Office procedures	5	7.00
Business English	3	4.17
Data processing	3	4.17
Good grooming class	3	4.17
Telephone techniques	3	4.17
More accounting	2	2.78
Psychology	2	2.78
Writing a resume	2	2.78
Additional rough draft work	2	2.78

Several of the items listed by the office workers could be incorporated in one class on pre-employment information. Some of these items are grooming, how to write a resume, psychology, telephone techniques, and possibly additional office procedures not now covered in office practice.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The tremendous rate of change in employment factors, especially technological change, requires constant evaluation in the area of business education. No formal follow-up study has ever been done of Traverse City High School business education graduates. This study was an effort to determine how well the business education department of Traverse City High School has met the employment requirements of its graduates.

The specific purposes of this study were to determine: (1) whether or not the Traverse City High School business education graduates attained the basic skills and knowledge necessary to gain initial employment in an office occupation, (2) what skills and knowledge the business education graduates used in their employment, (3) what skills and knowledge were being used by the business education graduates in their employment for which they felt insufficiently trained, or for which they had no training at the high school level, and (4) the degree of job satisfaction expressed by the business education graduates and their opinions as to why they felt the way they did about their job.

In September, 1967, 147 questionnaires were sent to the 1963-1966 business education graduates of Traverse City High

School. All business education graduates for these years were used in the survey except the five for whom no current address could be obtained. After a follow-up procedure was used, 110 questionnaires were returned which is 74.6 percent of those sent. The data on the returns was compiled and analyzed. Data used to compile the percentages concerning what is presently being done in office occupations was restricted to those persons who are currently employed in office positions or have worked in an office within the past six months. This was done to insure that only current practices were considered to reject as much guesswork as possible.

Summary of Findings.

1. Thirty-eight, or 34.5 percent, of the respondents attended one or more terms of college. Eleven of the 38, or 28.95 percent, attended two or more years of college.

2. Eighteen of the 38, or 47.4 percent, who attended college did so for personal satisfaction rather than for lack of entry-level job skills.

3. Of the 110 respondents, 21.82 percent felt inadequately trained in how to get a job, 32.73 percent in English skills, 17.27 percent in shorthand skills, and 12.73 percent in typewriting.

4. Eighty-five percent of the graduates now working were either satisfied or highly satisfied with their present job. Only one person working in a business occupation was dissatisfied.

5. The most frequent job classifications were clerk-typist and secretary, each with 16.36 percent of the respondents.

6. The general job groupings of general office and

clerk-typist contained 51.39 percent of the respondents currently employed in offices. An additional 37.5 percent were found in the title areas of secretary and stenographer.

7. One hundred four, or 96.37 percent, of the total respondents have worked at some type of paying job since graduation. Of the total respondents, 51.81 percent were working in an office at the time they responded to the questionnaire.

8. Eighty-three, or 75.45 percent, of the total respondents felt they had acquired adequate business skills in high school.

9. A majority of 56.94 percent of the 72 currently employed office workers indicated the most liked aspect of their job was the type of work. The next most liked aspect indicated by 20.83 percent of the currently employed respondents was that of working conditions. The most disliked aspect indicated by 16.67 percent of the office workers was that their job was too close to home. Twenty, or 27.78 percent, of the 72 could find nothing they disliked concerning their jobs.

10. All of the office workers surveyed used filing, with 84.8 percent using alphabetic filing daily, 34.8 percent using subject filing daily, 1.4 percent using geographic filing daily, and 52.8 percent using numeric filing daily.

11. Five bookkeeping tasks were performed by over 20 percent of the office workers. The most frequently used duties were in the areas of petty cash, purchasing, accounts receivable, accounts payable, and banking papers.

12. A wide range of typing skills were used by many of the

clerk-typist contained 51.39 percent of the respondents currently employed in offices. An additional 37.5 percent were found in the title areas of secretary and stenographer.

7. One hundred four, or 96.37 percent, of the total respondents have worked at some type of paying job since graduation. Of the total respondents, 51.81 percent were working in an office at the time they responded to the questionnaire.

8. Eighty-three, or 75.45 percent, of the total respondents felt they had acquired adequate business skills in high school.

9. A majority of 56.94 percent of the 72 currently employed office workers indicated the most liked aspect of their job was the type of work. The next most liked aspect indicated by 20.83 percent of the currently employed respondents was that of working conditions. The most disliked aspect indicated by 16.67 percent of the office workers was that their job was too close to home. Twenty, or 27.78 percent, of the 72 could find nothing they disliked concerning their jobs.

10. All of the office workers surveyed used filing, with 84.8 percent using alphabetic filing daily, 34.8 percent using subject filing daily, 1.4 percent using geographic filing daily, and 52.8 percent using numeric filing daily.

11. Five bookkeeping tasks were performed by over 20 percent of the office workers. The most frequently used duties were in the areas of petty cash, purchasing, accounts receivable, accounts payable, and banking papers.

12. A wide range of typing skills were used by many of the

workers on a regular basis. Major frequency of usage occurred on the following tasks: business letters, composing letters, tabulations, form letters, and reports.

13. Relatively few of the office workers used shorthand consistently. The skill was used most often for taking telephone messages.

14. A total of 79.17 percent of the responding office workers indicated they transcribed from rough drafts and longhand material. Machine transcription was performed by 22.22 percent of the office workers. Transcription from notes was performed by 31.94 percent of the workers.

15. Twelve, or 16.67 percent, of the office workers indicated they used some form of electronic data processing daily.

16. The 10- and full-key listing machines were used by 41.67 and 31.94 percent of the respondents respectively. Some type of rotary calculator was operated by 15.28 percent of the workers, and 11 percent used a 10-key printing machine.

17. Newer type duplicating methods were used by 91.67 percent of the office workers, most of them at least weekly. Ditto or mimeograph type equipment was used by 41.66 percent.

18. The most frequently used general machines were the telephone, electric and manual typewriters, and switchboard. The most often used item (by 94.44 percent of the total respondents) indicated was the telephone. An approximate equal ratio of electric and manual typewriter usage was reported.

19. Thirteen, or 18.16 percent, of the respondents desired

additional training on a variety of office machines. Seven, or 9.72 percent, desired acquaintance with additional duplicators.

Conclusions.

1. Typing is definitely a necessary skill for business graduates of Traverse City High School. Training is equally important on both the manual and electric typewriter.

2. Filing was a very important part of the office worker's job duties with most emphasis on alphabetic filing.

3. Electronic data processing machines were used by some (about 3 percent) of the 72 currently employed office workers.

4. The Traverse City business education graduates attained the basic skills and knowledge necessary to gain initial employment in an office occupation. This assertion was supported by 82.72 percent of the respondents indicating they either are presently working or have worked in an office. Twenty percent of those not working in an office listed "housewife" as the reason, not lack of business skills. Only two persons stated they were inadequately trained for office work. The success of the Traverse City business education program in supplying the basic skills was further supported by 97.6 percent of the respondents who have had an office job stating that they felt their training was adequate.

5. A majority of the persons who are either presently employed, or have been employed within the last six months, expressed an opinion of satisfaction with their job.

Results Not Supporting Author's Hypotheses:

1. A majority of the office workers did not transcribe material from shorthand. Transcription was done by 79.17 percent of the respondents from rough drafts or longhand material, 36.11 percent and 43.06 percent respectively. Only 31.94 percent of the workers transcribed from shorthand.

2. The position of bookkeeper was held by 11.11 percent of the 72 respondents currently working in offices. This was substantially more than the position of stenographer. Five specific bookkeeping duties were performed by over 20 percent of the responding office workers regardless of job title. Thorough training of all office workers in bookkeeping skills is more necessary than was previously thought.

Recommendations.

1. Training on the newer type duplicating machines should be done by use of discussions, demonstrations, and visiting the machine stations used in the high school complex.

2. Class standards in typewriting and shorthand should be reviewed and shortcomings eliminated. More emphasis should be placed on problem solving and rough drafts, with more extensive use of shorthand skills being the goal.

3. The application of various bookkeeping skills by secretaries should be stressed to a greater degree in all business classes.

4. Increased emphasis should be placed on producing mailable copies on the first try in advanced typing classes.

5. More emphasis should be placed on how to properly use a telephone for business purposes in the office practice classes.

6. The office machines course should be expanded to include a wider variety of machines.

7. More stress should be placed within present units of instruction on such topics as grooming, how to write a resume, office etiquette, psychology of worker interactions, and other immediate, before-employment information.

8. The purposes and goals of the business mathmetics classes should be re-evaluated from the view point of the needs of office workers.

BIBLIOGRAPHY

Books

Barma, M. An Introduction to Educational and Psychological Research. New York: PS Jayasinghe Asia Publishing House, 1965.

Crank, Doris H., and Crank, Floyd L. New Perspectives in Education for Business. Washington (DC): National Business Education Association, 1963.

Good, Carter V. Essentials of Educational Research. New York: Appleton-Century-Crofts, Division of Meredith Publishing Company, 1966.

McCarthy, John A. Vocational Education: America's Greatest Resource. Chicago: American Technical Society, 1952.

Mehrotra, P. V., Mehrotra, R. N., and Sukhia, S. P. Elements of Research. Bombay: Allied Publishers Private Limited, 1966.

Rummel, J. Francis. An Introduction to Research Procedures in Education, Second Edition. New York: Harper and Row, Publishers, 1959.

Travers, Robert M. W. An Introduction to Educational Research, 2nd Edition. New York: The Macmillan Company, 1964.

Articles and Periodicals

Berry, Doris Anita. "Typewriting: General Office Assignment Number One," Business Education Forum, XIX, No. 2 (November, 1964), 7-9.

Blackstone, Bruce I. "Office Education Today," American Vocational Journal, XXXVIII, No. 5 (May, 1963), 15.

_____. "The Office Worker and His Education," Journal of Business Education, XXXVIII, No. 1 (October, 1962), 27.

Erickson, Lawrence W. and Oliverio, Mary Ellen. "Evaluative Criteria for Survey Instruments in Business Education, Monograph 111. Chicago: South-Western Publishing Company, 1964.

Eyster, Elvin S. "New Directions in Business Education," American Vocational Journal, XL, No. 6 (September, 1965), 18-21.

Gideon, Francis C. "The Impact of Data-Processing Technique and the Information Systems Concept," Business Education World, XLII, No. 3 (November, 1961), 14-17.

Leonard, George B. "Are We Cheating Twenty Million Students?," Look, XXVII (June 4, 1963), 37-48.

O'Brien, M. Claire. "Automation, Office Occupations and Business Education," Business Education Forum, XVIII, No. 1 (October, 1963), 26-27.

Patchen, E. A. "Automation Affects Secondary Business Education," Journal of Business Education, XXXVII, No. 5 (February, 1962), 193-94.

Roman, John C. "Automation's Challenge to Business Education," Business Education World, XLII, No. 3 (November, 1961), 21-22.

Shilt, Bernard A. "Office Education, A Partner in Vocational Education," American Vocational Journal, XL, No. 3 (March, 1965), 21-22.

Slaten, Lenell M. "Business Subjects in the Secondary School Curriculum," The Balance Sheet, XLVIII, No. 4 (December, 1966), 159-60.

Spears, Harold. "Educational Implications of Automation as Seen by a Curriculum Specialist," Automation and Challenges to Education, XXXI (1962), 51-64.

Spring, Marietta. "Community Surveys Help the Business Teacher," The Balance Sheet, XLVII, No. 4 (December, 1965), 161-62.

Strony, Madeline S. "Plans Ahead in Secretarial Programs," Education for Business Beyond High School (National Business Education Yearbook), XIV (1957), 212-29.

Wanous, S. J. "The High School Business Curriculum," Business Education Quarterly, XXXI (Fall, 1962), 43-58.

Wood, Helen. "Trends in Clerical Employment," Business Education World, XLII, No. 3 (November, 1961), 18-20.

Unpublished Material

Andersen, Mary Jane. "Integrating Office Automation Knowledge in High School Business Education." Unpublished Master's thesis, Mankato State College, 1965.

Bratt, Marilyn Rothney. "A Follow-Up Study of the 1963-1964 Business Education Graduates of East Detroit High School to Determine the Effectiveness of Their Business Training." Unpublished independent study, Michigan State University, 1965.

Carter, Deane Milton. "A Study of Office Training Programs for Data-Processing Personnel in Selected Businesses in Metropolitan Denver, Colorado, with Implications for Business Education in the Secondary Schools." Unpublished Ph.D. dissertation, State University of Iowa, 1965.

Crisman, Leo Eugene. "A Follow-Up Study of the Lehi, Utah, High School Business Graduates for the Years 1955 to 1965, Inclusive." Unpublished Master's thesis, Brigham Young University, 1965.

Davitt, John J. "A Study of the Business Department and Its Graduates of Alexander Ramsey High School." Unpublished Master's thesis, University of Minnesota, 1960.

Dublanko, Tofen. "A Follow-Up Study of the Victoria Composite High School, Edmonton, Alberta, Business Education Graduates for the Years 1956, 1957, and 1958." Unpublished Master's thesis, University of North Dakota, 1960.

Dymczyk, Elaine. "A Follow-Up Study of Selected Graduates of the Cromwell, Connecticut, High School to Determine the Effectiveness of High School Business Courses as Preparation for Positions in Business." Unpublished Master's thesis, Central Connecticut State College, 1965.

Falk, Ruel F. "A Survey to Determine the Number and Types of Office Machines Used in Appleton, Menasha, Neenah, and Oshkosh, Wisconsin, and Some of the Implications of Automation for the Teaching of Office Machines." Unpublished Master's thesis, University of Wisconsin, 1965.

Friebe, Donald R. "A Follow-Up Survey of 1963-1965 Distributive Education Graduates of Northern High School, Pontiac, Michigan, to Determine the Value to Them of Cooperative Training in Their Present Employment." Unpublished independent study, Michigan State University, 1967.

Frisbie, Mary Adele. "Emerging Electronic Data Processing and Its Relation to Office Employment and Costs, 1930-1957; And Implications for Business Training." Unpublished Ph.D. dissertation, New York University, 1961.

Johnson, Richard C. "A Follow-Up Survey of Selected Graduates of the Lansing Public High Schools for the Purpose of Determining the Value of Forkner Shorthand to College Students." Unpublished independent study, Michigan State University, 1966.

Larson, Donn. "A Study of Local Legal Secretaries and Their Employers Pertinent to the Educational Preparation of the Legal Secretary in the Grand Rapids Area." Unpublished independent study, Michigan State University, 1966.

Parart, Sister Gervase, DC. "A Study to Determine the Effectiveness of the Business Curriculum of the Immaculate Conception Academy, Washington, D.C. In Reference to Office Skills and Personal Qualifications Requisite for Successful Federal Government Employment." Unpublished Master's thesis, The Catholic University of America, 1961.

Schenck, Katherine Mildred. "The Need for Teaching Bookkeeping in the Public Secondary Schools of the District of Columbia." Unpublished Master's thesis, The Catholic University of America, 1965.

Trimble, Dale. "A Survey of Office Machines Used in Selected Offices in the Owosso and Corunna, Michigan Area." Unpublished independent study, Michigan State University, 1966.

Walejko, Charles. "A Follow-Up Study of the Brussels, Wisconsin High School Secretarial Training Graduates and Their Employers From 1959 Through 1961." Unpublished Masters thesis, University of North Dakota, 1962.

Ward, Raymond A. "A Survey of Employers in Selected Business Firms in Grand Forks, North Dakota to Determine the Office Requirements for Clerical and Secretarial Worker." Unpublished Master's thesis, University of North Dakota, 1962.

Weeks, Edwin E. "A Study of the Expressed Employment Needs of Employers in the Syracuse Metropolitan Area With Implications for the Office Occupations Program in the Syracuse Public Schools." Unpublished ED.D. dissertation, Syracuse University, 1961.

Zandi, Don F. "A Follow-Up Study of the P. J. Jacobs High School, Stevens Point, Wisconsin, Business Education Graduates for Years 1959, 1960, and 1961." Unpublished Master's thesis, University of North Dakota, 1962.

APPENDIX A

COVER LETTER

Date

Address

Dear_____:

Will you help me solve a problem? The problem is to find out how adequate the business skills learned in high school are compared with the requirements of present office jobs.

Even if you are not presently employed, your answers to the general information questions will be helpful in evaluating many parts of the high school business program. All information will be "total number reported" so your name will not be used.

The enclosed questionnaire is a check list type and can be completed in a few minutes. A stamped, return envelope is enclosed for ease in returning the questionnaire. Please do so soon.

Your cooperation in helping me complete this study will be greatly appreciated.

Sincerely,

Bernard Ackerman, Business Teacher
Traverse City High School

dca

APPENDIX B

FOLLOW-UP LETTER

Date

Address

Dear _____:

Your completed questionnaire did not get here. Possibly you did not receive the first one mailed. A reply from each of those surveyed is important to get an accurate picture of how adequate our business program is.

I know you are very busy, but would you please take a few minutes now to complete the check list questionnaire and return it.

A stamped, self-addressed envelope is enclosed.

Your cooperation will be greatly appreciated.

Sincerely,

Bernard Ackerman, Business Teacher
Traverse City High School

dca

APPENDIX C

Name _____ Year Graduated _____

Did you attend college? ___yes___no. If yes, how many terms did you complete? ___ terms. If you attended college check one item to indicate the main reason:

high school skills not adequate to get job ..... _____
parents wanted you to get more training ..... _____
employer asked you to attend ..... _____
you wanted to sample college life ..... _____
needed training to advance on job ..... _____
friends convinced me to go ..... _____
several of the above ..... _____
other (please explain)_____

_____

In which of the following areas do you feel you received inadequate training in high school?		How important was the lack of this skill? major	minor
typewriting	____	____	____
how to get a job	____	____	____
English skills	____	____	____
bookkeeping.....	____	____	____
shorthand	____	____	____
business math	____	____	____
other (list)_____		____	____
_____			

Check one indicating how well you like your present job.

highly satisfied ..... _____
satisfied ..... _____
indifferent ..... _____
dissatisfied ..... _____
very dissatisfied ..... _____
(not employed) ..... _____

Check the one title which most closely fits the type of work you do.

Clerk Typist ..... _____
Secretary ..... _____
Typist ..... _____
General Clerk ..... _____
Bookkeeper ..... _____
Stenographer ..... _____
Receptionist ..... _____
Executive Secretary . _____
Legal Secretary ..... _____
Other (explain)_____

_____

In your opinion, did you have adequate business skills for your first office job (either full- or part-time) after high school?
____ yes ____ no ____ have not had an office job.

Since you graduated from school:	yes	no	full time	part time
Have you held a paying job at any time?	___	___	___	___
Are you presently working in an office occupation?	___	___	___	___
Have you worked in an office occupation in the past, but are not now?	___	___	___	___

If you are not now working in an office, please check (if possible) one item which most closely resembles your reason.

in college ..... ____
in service ..... ____
am a housewife ..... ____
lack adequate skills .. ____
maternity leave ..... ____
low pay ..... ____
poor working conditions ____
several of the above .. ____
other (list)_____

Place an "M" after the one item you like most about your job.
Place an "L" after the one item you like least about your job.

working conditions .... ____
boss ..... ____
co-workers ..... ____
type of work ..... ____
located close to home.. ____
other (list)_____

Skip any of the numbered categories which you do not use and do not need to use. When the choice "other" is used, please explain briefly on the line following.

	Need to use Skill		ON YOUR PRESENT JOB APPROXIMATELY HOW OFTEN YOU USE SKILL			
1. FILING	YES	NO	daily	weekly	monthly	less than monthly
alphabetic						
subject						
geographic						
numeric						
other_____						

[illegible]

[illegible]

[illegible]

	Need to use Skill		ON YOUR PRESENT JOB APPROXIMATELY HOW OFTEN YOU USE SKILL			
	YES	NO	daily	weekly	monthly	less than monthly
2. BOOKKEEPING						
petty cash						
purchasing						
payroll						
inventory						
accounts receivable.						
accounts payable ...						
banking papers						
State taxes						
other _____						
3. TYPEWRITER						
business letters ...						
tabulations						
form letters						
filling in forms ...						
composing letters ..						
reports						
stencils						
dittos						
invoices						
memos						
rough drafts						
other _____						
4. SHORTHAND						
dictation						
telephone messages..						
instructions						
minutes						
memos						
personal use						
other _____						
5. TRANSCRIPTION						
shortnand notes						
machine						
longhand material ..						
rough drafts						
other _____						

	Need to use Skill YES	NO	ON YOUR PRESENT JOB APPROXIMATELY HOW OFTEN YOU USE SKILL daily	weekly	monthly	less than monthly
6. ELECTRONIC DATA PROCESSING						
key punch						
tape punch						
verifier						
sorter						
collator						
bookkeeping machine.						
other_____						
7. ADDING & CALCULATING MACHINES						
10-key listing						
full-key listing ...						
10-key printing						
full-key printing ..						
key-driven						
rotary						
other_____						
8. DUPLICATING EQUIP.						
ditto-type						
mimeograph						
photocopy						
Xerox						
Verifax						
Thermo-Fax						
other_____						
9. GENERAL MACHINES						
telephone						
electric typewriter.						
manual typewriter ..						
flexowriter						
switchboard						
teletype						
cash register						
billing machine						
other_____						

What additional skills or training do you think should be offered in high school? Use back of page if necessary.

_____