

1953

A follow-up study of the 1948-1952
business department graduates of Saint
John High School North Cambridge,
Massachusetts with implications for
curriculum revision.

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Thesis

A FOLLOW-UP STUDY OF THE 1948-1952
BUSINESS DEPARTMENT GRADUATES
OF
SAINT JOHN HIGH SCHOOL
NORTH CAMBRIDGE, MASSACHUSETTS
WITH IMPLICATIONS FOR CURRICULUM REVISION

Submitted by

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A. B., Boston College, 1945

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

1953

Boston University
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CHAPTER I

INTRODUCTION

Statement of the Problem

The purposes of this study were to make a follow-up of the business graduates of the Saint John High School, North Cambridge, Massachusetts, for the years 1948 through 1952, to determine the effectiveness of the business education program and to determine the duties most frequently performed by the graduates, with implications for curriculum revision.

Analysis of the Problem

The subordinate problems involved in the major problem were as follows:

1. Were the graduates of the past five years employed in positions for which they had received training in high school?
2. How soon after graduation did they obtain their positions?
3. Through what sources did they obtain their positions?
4. What types of business concerns employed the graduates?
5. Did the graduates need to receive additional training in their first positions?

7. What percentage of the graduates had received further education since leaving high school?

8. What were the reasons given by the graduates for furthering their education?

9. Which high school subjects have been most helpful to the graduates?

10. Which subjects might be added to the curriculum as shown by the needs of the graduates?

11. Which office activities were most frequently performed by the graduates?

12. Where did the graduates think these office activities should be taught?

13. Which office activities did the graduates think should receive more emphasis in school?

14. What types of office machines were most frequently used by the graduates?

Justification of the Problem

This study should be of value to the present and future business students, to business teachers and counselors, and to those in charge of curriculum construction.

From this study the students will obtain a knowledge of the types of positions open to beginning workers, the wages paid in these beginning positions, and the specific activities the graduates might be expected to perform.

Since these future employees are being trained to take their places in the community, every means possible to supply them with local occupational information should be utilized.

Business educators realize the need of acquainting the students with some knowledge of the requirements of the business world. Enterline¹ feels that the school has this responsibility:

The school, and particularly the department of business education, has a responsibility to secure and make available to students pursuing vocational business courses accurate and complete information about the requirements of the various types of business occupations open to students upon the completion of their training

In speaking of the school's responsibility, Tonne² says that this responsibility extends even beyond graduation:

If one of the aims of education is to prepare for successful economic living, the schools fail in achieving their goal if they dismiss their graduates without ascertaining whether the results of this training have proved successful.

¹Enterline, H. G., "Trends of Thought in Business Education," Monograph 72, South-Western Publishing Company, Cincinnati, March, 1949, p. 23.

²Tonne, Herbert A., "Trends and Factors Affecting Curriculum Revision in Business Education," Fourteenth Yearbook, Eastern Commercial Teachers Association, Philadelphia, 1941, p. 41.

The follow-up study supplies information that is of value in guiding the business students. Stockman³ points out its value to business teachers:

If the school would . . . meet the current needs of the product . . . its business teachers in particular need to know definitely what community employment requires, what graduates do on the job, what skills, knowledges, and techniques they use in their daily work

Leaders in the business education field and guidance directors stress the importance of the follow-up as a basis for revising the curriculum. The information gained through a follow-up suggests the need for new courses, the dropping of others, and the type of equipment that might be purchased for the business department.

This study, then, should be helpful to the student in acquainting him with local occupational information; to the business teacher in evaluating his teaching; and to curriculum builders as a basis on which to make revisions in the business curriculum.

Delimitation of the Problem

This study was limited to a survey of the former students who had received two years of business training in high school, and who were graduated during the years 1948, 1949, 1950, 1951, and 1952.

³Stockman, Edgar Russell, "An Integrated Office Practice Course of Study for Secondary Schools," National Association of Business Teacher-Training Institutions, Harrisonburg, Virginia, Bulletin No. 50, March, 1950, p. 12.

The survey was limited to the specific office activities performed by the graduate in his present position and did not include the responsibility involved, the physical demands made upon the worker, or the general qualifications required of the worker.

Organization of the Chapters

Chapter I includes the statement and the nature of the problem. In Chapter II the related literature is reviewed. The procedures used in this study are outlined in Chapter III. In Chapter IV the data from the survey reports and check lists are analyzed and interpreted. Chapter V contains the summary, conclusions, and recommendations, based on the findings of this study.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter includes a review of related studies concerned with surveys of high school business graduates which have been conducted within the past three years.

In 1949, McVey⁴ made a study in order to ascertain the duties and tasks performed by those employed as typists in Lynn, Massachusetts. Check lists were sent to 150 typists in businesses selected on the basis of possible places where high school graduates might seek employment as typists. A similar check list was also sent to 125 employers. The third part of the survey consisted of personal interviews which were held with 20 office managers in order to find out what the occupational opportunities were for high school graduates.

Based on the findings of this study, the following recommendations were made:

1. Typewriting activities which are most frequently used by typists such as typing letters, using the telephone, using adding machine, indexing and filing, and typing envelopes and reports should be taught in the high school typewriting course.
2. Typewriting students should develop a high degree of skill in alphabetical filing.
3. Training in the use of the adding machine should emphasize skill in addition.

⁴McVey, Jennie, "A Job Analysis of Duties and Tasks Performed by Typists in a Large Community," Master's Thesis, Boston University, 1949, 124 pp.

4. More attention should be given to judging the correct spacing and placement of letters.
5. Greater emphasis should be placed on spelling, punctuation, and grammar.
6. Typewriting students should be given more opportunity to type real business forms.
7. More training should be given in typing from rough draft, proofreading, typing with multiple carbons, using master copies, and cutting stencils.
8. Students should be trained to work under pressure. This may be accomplished by assigning work to the typing students which must be completed by a given date.
9. Teachers of typewriting should become acquainted with the various types of tests given to typists in order to coach their students along these lines.
10. Students should be given an opportunity to operate the various kinds of typewriters which are available.

The purposes of the Ryan⁵ study made in 1949 were to determine the skills most commonly used by high school graduates in beginning office jobs and whether school preparation was adequate for reasonable satisfactory job adjustment in the opinion of the graduates.

This information was obtained by means of a survey report and check list. Within six weeks, 134 of the 150 business graduates had responded to the questionnaire.

⁵Ryan, Mary A., "A Job-Activity Analysis and Follow-Up Study of the 1946, 1947, 1948 Business Department Graduates of Nashua High School, Nashua, N.H.," Master's Thesis, Boston University, 1949, p. 72.

From this survey it was found that:

1. Duties and office activities of a general clerical nature far outnumbered the specialized type of activities in both number and degree of frequencies.
2. Typing and filing activities were the most numerous and most commonly advocated for school training by the graduates.
3. The office machines most frequently used were the Burrough's adding machine, the Monroe, and the Comptometer. Addition was performed much more frequently than any other process on the Comptometer.
4. Duplicating machine operation was not required on very many beginning office jobs although preparation for this type of work received major emphasis in the high school training program at the time of the study.
5. Answering the telephone, meeting callers, office housekeeping, and composing letters at the typewriter were activities which rated high in the list of frequently performed office activities although these did not receive major emphasis in high school at the time this study was made. Preparation for these activities should be provided by the school in the opinion of the majority of the graduates.
6. While manufacturing types of business and large business offices employed the greatest number of high school business course graduates, employment was obtained in a wide variety of office and business concerns.
7. Very few responses indicate that office activities tend to be specialized in the local community.

The recommendations made as a result of this study were: teachers of typewriting should try to develop a high degree of skill in the following typing activities which are called for most frequently on the job: filling in printed forms, addressing envelopes, folding and inserting letters into envelopes, copying from handwriting and rough draft material,

typing bills and invoices, handling multiple carbon packs, typing tabulated and statistical work, and typing manuscripts and reports. Filing alphabetically by name, preparing material for filing, numerical filing, keeping follow-up file, and cross referencing should be stressed in school preparation. Provision should also be made for training in answering the telephone.

Noonan⁶ conducted a study in 1949 to determine how well the business curriculum of the X High School had prepared the graduates to meet the requirements of business. Questionnaires were sent to 438 business graduates of the school. Two hundred twenty-five, or 51.3 per cent, replied to the request for information.

As a result of the findings of this study, the following recommendations were made for improving the curriculum:

1. A course should be given in business ethics.
2. More business English should be given to the students enrolled in the business curriculum. Instruction in English and in secretarial subjects should be correlated so as to minimize contradiction and confusion.
3. A separate course in transcription should be added to the business curriculum. With the inclusion of the transcription course the second-year typing class can spend more time on advanced typing problems and the perfection of techniques.

⁶Noonan, Mary M., "A Follow-Up Study of the 1946 and 1947 Business Graduates of X High School," Master's Thesis, Boston University, 1949, 47 pp.

4. More time should be given to actual office procedures in the office practice class. Training in the use of telephone and switchboard is highly desirable.
5. The business education program should provide specialization in the stenographic, bookkeeping, and general clerical fields.

A study based on the activities most frequently performed by high school graduates was conducted by Thatcher⁷ in 1950. Data sheets and check lists were sent to 157 graduates of Gardner High School. One hundred fifty-one, or 96 per cent, responded by the end of the fifth week.

The results of this study showed that typing activities, the majority of the stenographic and secretarial activities, and the majority of the filing activities ranked in the upper half for total frequency of performance. The bookkeeping activities ranked in the lower half as far as the total frequency of performance was concerned. The ten office activities which ranked highest in total frequency of performance were: alphabetic filing by name, answering telephone, filling in printed forms, addressing envelopes, handling telephone calls for employer, copying from handwriting, using Burroughs adding machine, folding letters and inserting into envelopes, looking up correspondence, and doing tabulation and statistical work.

⁷Thatcher, Carolyn A., "A Job-Activity Analysis and Follow-Up Study of 1947, 1948, and 1949 Graduates of the Business Department of Gardner High School, Gardner, Massachusetts," Master's Thesis, Boston University, 1950, 78 pp.

The following recommendations were made by Bronstein⁸ as a result of a study based on the specific duties performed by the graduates of Manchester Central High School engaged in office occupations:

1. Typewriting students should develop a high degree of skill in those activities which are required most frequently on the job, such as filling in printed forms, typing reports, addressing envelopes, typing bills and invoices, and typing for duplicating work.
2. More attention should be given to judging correct spacing and placement of letters.
3. Typewriting students should be given more opportunity to type business forms used in the community.
4. Students should be trained to work under pressure.
5. Students in typewriting should be given more practice in typing figures.
6. Greater emphasis should be placed on spelling, punctuation, and grammar.
7. Training in the use of the adding machine should emphasize skill in addition.
8. Students should visit business offices to see business in operation.
9. Some provision should be made for training in proper telephone technique in the office.
10. Students in bookkeeping course should be required to develop an understanding of taking a trial balance. They should also have a comprehension of terms pertinent to financial records.
11. The following filing activities should be stressed in school preparation: preparing material for filing, and filing alphabetically by name.

⁸Bronstein, Joseph E., "A Follow-Up Study of the 1949 and 1950 Business Graduates of Manchester Central High School, Manchester, N. H.," Master's Thesis, Boston University, 1951, p. 55.

One of the purposes of the study made by Donohue⁹ in 1951 was to survey the occupational opportunities available to youth of high school age in the city of Cambridge to determine the future occupational needs of students who take the business curriculum. The study was confined to job-activity analysis and was limited to 500 industries of the city of Cambridge to determine job activities and types of office machines used.

A data sheet and check list were used to obtain the information. Two hundred forty-seven of the 426 graduates replied.

The findings of this survey reveal that most of the graduates were employed in manufacturing offices, retail stores, insurance companies, and financial institutions; a high percentage of the graduates were required to take pre-employment tests; there are many opportunities open to boys; twenty-six boys did some type of office work which indicates that they benefited from high school business training courses.

Among the recommendations offered for improving the curriculum are the following: some definite system of follow-up should be established; personality, office manners, and etiquette should be integrated with the office practice course; some revision of the English course

⁹Donohue, James Leo, "A Follow-Up Study of the Business Graduates of 1948-1949 of Cambridge High School, With Implications for Curriculum Revision," Master's Thesis, Boston University, 1951, 76 pp.

should be made to give training in letter writing and the fundamentals of expression; more boys should be advised of possibilities in business work; and all students should have an opportunity for practice in using the telephone and in receiving callers.

In Arlington, Toner¹⁰ conducted a follow-up study in which he contacted 525 graduates of Arlington High School. Replies were received from 475, or 90.5 per cent, of the graduates.

The replies indicated that high school is terminal education for the majority; a majority of the graduates were employed in office-type positions; 90.8 per cent of those working were doing office-type work; 90.5 per cent of those in office-type positions were with their original employers.

To better serve the needs of the graduates, Toner recommended that the bookkeeping course be limited to two years, that more training be given in merchandising and personality development, and that business organization and economic geography courses be revised to suit the needs of the students.

The study of the methods used in the surveys which have been reviewed assisted the writer in deciding upon the procedures to be carried out in conducting this follow-up. These procedures are listed in Chapter III.

¹⁰Toner, James John, "A Follow-Up Study of the 1947-1950 Graduates of the Business Department of the Arlington High School," Master's Thesis, Boston University, 1951, 109 pp.

CHAPTER III

PROCEDURES

The procedures used in this study were as follows:

1. Permission to make the survey of the graduates was secured from the pastor and from the principal of the school.
2. Similar studies were reviewed and abstracted to furnish a background for the study.
3. A survey report and a check list were selected as the means of collecting the data.
4. The instruments were presented to the members of the seminar at Boston University for criticism and suggestions.
5. After the instruments were revised according to the suggestions of the members of the seminar, they were sent to ten employed graduates, in a try-out study, for the purpose of determining any weaknesses in the survey report or the check list.
6. The revised instruments and a letter of transmittal were prepared.
7. A list of the graduates for the years 1948, 1949, 1950, 1951, and 1952 was prepared from the permanent record cards in the high school office.
8. On October 15, 1952, a letter of transmittal, the survey report, and the check list were sent to 290 graduates of the business department.
9. On November 3, 1952, a postal card was sent as a reminder to the graduates who had not returned the forms.

10. Two weeks later, November 17, telephone calls were made to the local graduates who had not responded. Extra copies were sent to eight graduates who had misplaced the original forms.

11. The data obtained from the returned survey reports and check lists were compiled and tabulated.

12. The data were analyzed and interpreted.

13. Summary, conclusions, and recommendations were made based upon the findings of the survey.

Since it was not possible to interview the 290 graduates of the business department to secure the data concerning the job experiences, a survey report was decided upon as the means of collecting the data. Answers to the following questions were considered to be important in determining the effectiveness of the business education program:

1. Were the graduates of the past five years employed in positions for which they had received training in high school?

2. How soon after graduation did they obtain their positions?

3. Through what sources did they obtain their positions?

4. What percentage of the graduates had received further education since leaving high school?

In order to determine which types of business concerns employ the high school graduates, the graduates were asked

questions concerning the type of business in which they were employed, the name of the company, and the approximate number of employees in the office.

Check lists used in other studies were analyzed and the items having the highest frequency of performance were selected for this check list. The writer's own experience as an office worker and business teacher suggested the inclusion of some of the items. The activities on the check list were divided into six specific groups as follows: typing, secretarial, filing, bookkeeping, office machines, and other office activities. The office machines activities were listed according to the types of machines used in offices. The headings of the columns of the check list are similar to those used by Radzukinas.¹¹

The check list provided space for checking the approximate number of hours spent on each activity, where this activity should be taught in the opinion of the graduate, and whether or not the graduate thought that more emphasis should be placed on the teaching of this activity in school.

The instruments were submitted to the members of the seminar at Boston University. The suggestions of the group were carried out and the revised survey report form and check list were sent, as a tryout, to ten members of the

¹¹Radzukinas, Anna, "A Follow-up Study and a Job-Activity Analysis of the 1946, 1947, 1948, 1949, and 1950 Four-Year Secretarial Major Graduates of Boston University College of Practical Arts and Letters," Master's Thesis, Boston University, 1951, p. 79.

graduating classes of the past five years. Two graduates from each class who were known to be working full time were selected. When the data from the ten replies were tabulated, a few minor changes were found necessary.

On October 15, 1952, copies of the survey report, check list, and letter of transmittal were mailed to 290 business graduates of the classes of 1948, 1949, 1950, 1951, and 1952. Stamped and addressed return envelopes were enclosed with the forms.

The names and addresses of the graduates were secured from the permanent record cards in the high school office. Forms were mailed to all the business graduates whether or not they were employed in office work.

Within one week from October 15, 123 returns were received. During the next two weeks an additional 73 returns were received. Postal cards were sent during the fourth week to those who had not yet responded. At the end of the fourth week the members of the senior class contacted by telephone the local graduates who had not answered the first two requests. Eight graduates requested another form since they had misplaced the original copy.

The data obtained from the survey report forms and check lists will be analyzed in the following chapter.

CHAPTER IV
ANALYSIS OF INFORMATION OBTAINED FROM SURVEY REPORTS
AND CHECK LISTS

The survey report form was the means used to obtain information about the work experiences of the business graduates for the years 1948 through 1952.

The following table shows that of the 290 survey reports and check lists mailed, 270, or 93 per cent, were completed and returned.

TABLE I
RETURNS FROM SURVEY REPORTS AND CHECK LISTS

Time	Number Returned	Per Cent of Returns
One week	123	42
Two weeks	196	68
Three weeks	206	71
Four weeks	229	76
Five weeks	241	83
Six weeks	270	93

The graduates were very cooperative in responding to the request for information. As shown in Table II the graduates of the classes of 1951 and 1952 responded 100 per cent. Only

one member of the class of 1950 failed to respond. The total number of responses was considered to be sufficient for securing the information needed for the completion of this study.

TABLE II
RETURNS BY CLASSES

Class	Number Sent Out	Number Received	Per Cent of Returns
1948	56	47	84
1949	74	64	86
1950	50	49	98
1951	42	42	100
1952	68	68	100
Total	290	270	93

Of the 35 male graduates, 33, or 94 per cent, completed the survey report forms and check lists. The per cent of response was slightly more than that of the girls.

TABLE III
RETURNS FROM MALE GRADUATES BY CLASSES

Class	Number Sent Out	Number Received	Per Cent of Returns
1948	5	5	100
1949	5	3	60
1950	3	3	100
1951	6	6	100
1952	16	16	100
Total	35	33	94

TABLE IV
RETURNS FROM FEMALE GRADUATES BY CLASSES

Class	Number Sent Out	Number Received	Per Cent of Returns
1948	51	42	82
1949	69	61	88
1950	47	46	94
1951	36	36	100
1952	52	52	100
Total	255	237	93

TABLE V
DISTRIBUTION OF EMPLOYMENT OF THE 270 RESPONDENTS

How Employed	Number	Per Cent
Employed for wages full time	211	78.1
Housewife	24	8.9
In school full time	21	7.8
In armed forces	9	3.3
Religious teachers	4	1.5
Employed for wages part time	1	.4
Total	270	100.0

As shown in Table V, 78.1 per cent, or 211, of the 270 respondents were employed for wages full time. Of the 211 respondents who reported that they were employed for wages full time, 178, or 84.4 per cent, were engaged in office work. Twenty-four, or 8.9 per cent, were married and at home. Three of the 21 graduates who reported that they were in school full time were attending training schools for nurses. One girl and eight boys, or 3.3 per cent of the respondents, were serving in the armed forces. Four graduates, or 1.5 per cent, were in religious training schools. The one graduate who was employed part time attended school part time.

The table below shows that 85 graduates, or 40 per cent, obtained their first positions before graduation. One hundred twenty-six graduates, or 60 per cent, found employment after graduation from high school.

TABLE VI
TIME ELEMENT IN OBTAINING POSITIONS

Time	Number	Per Cent
Before graduation	85	40
After graduation	126	60
Total	211	100

Of the 40.3 per cent who were employed before graduation, forty-eight graduates, or 22.8 per cent, found employment from one to four weeks before graduation from high school. The remaining 18 per cent of the 211 respondents remained in the organizations in which they were employed on a part-time basis.

TABLE VII
 TIME BEFORE GRADUATION IN WHICH FIRST POSITIONS
 WERE OBTAINED

Time	Number	Per Cent of Returns
One month	48	22.8
Two months	17	8.1
Three months	7	3.3
Four months	2	.9
Five months	1	.5
Six months	2	.9
More than six months	8	3.8
Total	85	40.3

An additional 42 per cent found employment within two months after graduation from high school. With the exception of nine graduates who did not seek employment because of attendance at school, all graduates were employed in full-time positions within ten months after graduation.

TABLE VIII
 TIME AFTER GRADUATION IN WHICH FIRST POSITIONS
 WERE OBTAINED

Time	Number	Per Cent of Returns
One month	72	34.1
Two months	18	8.5
Three months	11	5.2
Four months	6	2.8
Five months	2	.9
Six months	2	.9
Seven months	1	.5
Eight months	2	.9
Ten months	2	.9
One year	7	3.3
Two years	1	.5
Three years	1	.5
No answer	1	.5
Total	126	59.5

The graduates secured their first positions through many sources. Eighty-six, or 40.7 per cent, of the respondents secured positions through their own efforts. Relatives and friends helped 62 graduates, or 29.4 per cent, to find

employment. The high school has no placement bureau but was responsible for helping 10.9 per cent, or 23 graduates, to find initial positions. Sixteen, or 7.6 per cent, secured employment through the United States Employment Agency. Business schools, private agencies, and Civil Service were the sources through which the remaining 10 per cent were placed in first positions.

TABLE IX
SOURCES THROUGH WHICH THE 211 GRADUATES OBTAINED THEIR
FIRST POSITIONS

Sources	Number	Per Cent of Returns
Personal application	86	40.7
Relative or friend	62	29.4
High school	23	10.9
U. S. Employment Agency	16	7.6
Business schools	9	4.3
Private agencies	8	3.8
Civil Service	4	1.9
No answer	3	1.4
Total	211	100.0

The answers from 97 graduates, or 46 per cent, showed that these graduates were not required to take employment

tests in order to secure beginning positions. The respondents who reported that they were given an employment test indicated that the intelligence test was the one most frequently administered. The next test in order of frequency was the typewriting test. Twenty-seven per cent of the graduates reported taking this type of test. A transcription test was given to 18, or 8.5 per cent, of the graduates. Seven respondents did not answer this question while 46 graduates indicated that they took more than one test.

TABLE X
 TYPES OF EMPLOYMENT TESTS TAKEN BY THE 211 GRADUATES
 WHEN THEY APPLIED FOR THEIR FIRST POSITIONS

Type of Test	Number	Per Cent of Returns
No test	97	46.0
Intelligence	69	32.7
Typewriting	57	27.0
Transcription	18	8.5
Office Machines	3	1.4
Civil Service	3	1.4
State Board Examination	2	.9
Mechanical Aptitude	1	.5
No answer	7	3.3

The most frequent combination of tests given to these 46 graduates was the intelligence and typewriting tests. Twenty-eight respondents reported taking this combination. Eight graduates indicated that they had a combination of typewriting and transcription while five were given intelligence, typewriting, and transcription tests.

The replies indicated that the largest percentage of the graduates found their beginning positions in insurance offices. Fifty graduates, or 23.7 per cent, were employed in this type of business. The manufacturing concerns employed 39 graduates, or 18.5 per cent. The next largest numbers were employed in department stores, public utilities, professional, and banking offices.

TABLE XI
VARIOUS TYPES OF BUSINESSES IN WHICH THE 211 GRADUATES
WERE EMPLOYED IN THEIR FIRST POSITIONS

Type of Business	Number	Per Cent
Insurance	50	23.7
Manufacturing	39	18.5
Department Store	20	9.4
Public Utilities	18	8.5
Professional	16	7.6
Banking	14	6.6
Grocery	8	3.8

TABLE XI CONTINUED
 VARIOUS TYPES OF BUSINESSES IN WHICH THE 211 GRADUATES
 WERE EMPLOYED IN THEIR FIRST POSITIONS

Type of Business	Number	Per Cent
Civil Service	7	3.3
Educational Institution	6	2.8
Finance	6	2.8
Publishing	4	1.9
Transportation	4	1.9
Auto Sales	2	.9
Electrician	2	.9
School Supplies	2	.9
Carpentry	1	.5
Cleaners	1	.5
Druggist	1	.5
Government	1	.5
Hotel	1	.5
Laundry	1	.5
Lumber	1	.5
Photographer	1	.5
Restaurant	1	.5
Retail Coal Dealers	1	.5
Storage	1	.5
Wholesale Hardware	1	.5
No answer	1	.5
Total	211	100.0

Table XI shows that the training given the graduates enabled them to adjust themselves to various types of businesses.

The graduates were asked to indicate the types of businesses in which they were employed at the time of the study.

TABLE XII
TYPES OF BUSINESSES IN WHICH THE 211 GRADUATES
WERE EMPLOYED AT THE TIME OF THE STUDY

Type of Business	Number	Per Cent
Manufacturing	47	22.3
Insurance	37	17.5
Public Utilities	32	15.2
Banking	18	8.5
Civil Service	13	6.2
Professional	11	5.2
Department Store	10	4.7
Educational Institution	7	3.3
Chemist	6	2.8
Publishing	5	2.4
Finance	5	2.4
Grocery	5	2.4
Carpentry	2	.9
Lumber	2	.9
School Supplies	2	.9

TABLE XII CONTINUED
 TYPES OF BUSINESSES IN WHICH THE 211 GRADUATES
 WERE EMPLOYED AT THE TIME OF THE STUDY

Type of Business	Number	Per Cent
Transportation	2	.9
Air Transportation	1	.5
Dairy	1	.5
Electrician	1	.5
Government	1	.5
Restaurant	1	.5
Storage	1	.5
Wholesale Hardware	1	.5
Total	211	100.0

The largest percentage of graduates was employed in the offices of manufacturing concerns, with the next highest frequency in the insurance offices. The public utilities at the time of the study employed 32 graduates, or 15.2 per cent, as compared with 18, or 8.5 per cent, in the beginning positions. One-half of the 20 respondents who were employed in department stores in the beginning positions were in other types of businesses at the time of the study. An increase was indicated in the number of graduates who entered Civil Service employment and in the number employed in banks.

The graduates were asked to give the names and addresses of the companies in which they were employed in their beginning positions and in their present positions in order to obtain information that might be helpful to the present business students. A list of these concerns has been added to the Appendix.

TABLE XIII
 SIZE OF THE OFFICES IN WHICH THE GRADUATES
 WERE EMPLOYED IN THEIR FIRST POSITIONS

Number of Employees	Number of Graduates	Per Cent of Returns
1 - 5	42	24.9
6 - 10	29	17.2
11 - 25	40	23.7
26 - 50	25	14.7
51 - 100	18	10.7
101 - 199	7	4.1
200 - 500	6	3.5
No answer	2	1.2
Total	169	100.0

In their initial positions, 169 graduates, or 80.1 per cent of the 211 employed full time, were engaged in office work. The majority of the graduates showed a preference for

the large offices. An office was considered large if it had eleven or more employees. Forty-two, or 24.9 per cent, were working in offices having from one to five employees; 40, or 23.7 per cent, were employed in offices having from 11 to 25 people. Twenty-nine, or 17.2 per cent, worked in offices employing between six and ten workers. The remaining 56, or 33 per cent, worked in departments where the office force numbered from 26 to 500 workers. Two graduates did not answer this question.

TABLE XIV
 SIZE OF THE OFFICES IN WHICH THE GRADUATES WERE EMPLOYED
 AT THE TIME OF THE STUDY

Number of Employees in Office	Number of Graduates	Per Cent of Returns
1 - 5	55	31.0
6 - 10	39	21.9
11 - 25	39	21.9
26 - 50	18	10.1
51 - 100	11	6.2
101 - 199	7	3.9
200 - 500	7	3.9
No answer	2	1.1
Total	178	100.0

At the time of the study, 178, or 84.4 per cent, of the graduates were employed in offices. Of this number, 94, or 52.9 per cent, were employed in offices having one to ten workers. Forty-six per cent, or 82 graduates, worked in the large offices employing from 11 to 500 people. Two graduates did not indicate the size of the offices in which they worked.

In order to have information available about their beginning occupations, the graduates were asked to state the titles of their first positions. In their initial positions, 57 graduates, or 27 per cent, were employed as clerks; 16, or 7.5 per cent, were classified as secretaries; and 15, or 7 per cent as clerk-typists. Fourteen graduates replied that they were file clerks, and 14 did not reply to this question. Twelve graduates classified themselves as stenographers; ten, as sales clerks; and nine, as bookkeepers. Typists and telephone operators numbered seven each. The next largest percentage worked as billing typists. The remaining 24 per cent reported such occupations as stock clerk, Comptometer operator, bank teller, check teller, dictaphone operator, addressograph operator, receptionist, messenger, and office boy. The graduates who were not employed in office work reported such titles as sales clerk, telephone operator, shipper, apprentice carpenter, apprentice baker, beautician, machinist, truck driver, unit operator, and x-ray technician.

TABLE XV
 TITLES OF FIRST POSITIONS OF 211 GRADUATES
 IN FULL-TIME POSITIONS

Title of Position	Number of Graduates	Per Cent of Returns
*Clerk (1)	57	27.0
Secretary	16	7.5
*Clerk-typist (1)	15	7.0
File clerk	14	6.6
Stenographer	12	5.7
*Sales clerk (3)	10	4.7
Bookkeeper	9	4.3
Typist	7	3.3
Telephone operator	7	3.3
Billing-typist	6	2.8
*Stock clerk (4)	4	1.9
Comptometer operator	3	1.4
Teller	3	1.4
Messenger	3	1.4
*Office boy (2)	2	.9
Check teller	2	.9
*Shipper (2)	2	.9
*Library clerk (1)	2	.9
Addressograph operator	1	.5
*Appraiser (1)	1	.5

TABLE XV CONTINUED
 TITLES OF FIRST POSITIONS OF 211 GRADUATES
 IN FULL-TIME POSITIONS

Title of Position	Number of Graduates	Per Cent of Returns
*Apprentice carpenter (1)	1	.5
*Apprentice baker (1)	1	.5
Beautician	1	.5
Cashier	1	.5
Dictaphone operator	1	.5
I. B. M. machine operator	1	.5
Inspector	1	.5
Laundress	1	.5
Master checker	1	.5
*Machinist (1)	1	.5
Receptionist	1	.5
Sorter	1	.5
*Student attendant (1)	1	.5
*Truck driver (1)	1	.5
Staff nurse	1	.5
Supervisor	1	.5
Switchboard operator	1	.5
Tube tester	1	.5
*Underwriter (1)	1	.5

TABLE XV CONTINUED
 TITLES OF FIRST POSITIONS OF 211 GRADUATES
 IN FULL-TIME POSITIONS

Title of Position	Number of Graduates	Per Cent of Returns
Unit operator	1	.5
X-ray technician	1	.5
*No answer (1)	14	6.6
Total	211	100.0

*Number in parenthesis indicates the number of male graduates reporting this title.

The replies given in answer to the request for information concerning the titles of the positions held by the graduates at the time of the study indicated that of the 211 graduates employed full time, 178, or 84.4 per cent, were doing the type of work for which they had been trained. Of the 178 graduates, 65, or 36.5 per cent, had received additional business training since graduation from high school. The most frequently held position was clerk. Forty-two, or 19.9 per cent, of the full-time employees reported this type of position. Next in order of frequency were secretary, 22, or 10.4 per cent; bookkeeper, 20, or 9.4 per

cent; clerk-typist, 20, or 9.4 per cent; and stenographer, 17, or 8 per cent. Other graduates reported the following occupations: telephone operator, typist, billing-typist, teller, file clerk, I. B. M. machine operator, comptometer operator, office boy, sales clerk, cashier, receptionist, and switchboard operator. The titles reported by the male graduates are marked with an asterisk, and the number of male graduates is placed in parenthesis after the title of the position.

TABLE XVI
TITLES OF POSITIONS IN WHICH THE 211 GRADUATES
WERE EMPLOYED AT THE TIME OF THE STUDY

Title of Position	Number of Graduates	Per Cent of Returns
*Clerk (2)	42	19.9
Secretary	22	10.4
*Clerk-typist	20	9.4
Bookkeeper	20	9.4
Stenographer	17	8.0
Telephone operator	11	5.2
Typist	7	3.3
Billing-typist	7	3.3
Teller	5	2.4
File clerk	5	2.4
I. B. M. machine operator	5	2.4

TABLE XVI CONTINUED
 TITLES OF POSITIONS IN WHICH THE 211 GRADUATES
 WERE EMPLOYED AT THE TIME OF THE STUDY

Title of Position	Number of Graduates	Per Cent of Returns
*Sales clerk (3)	3	1.4
Comptometer operator	3	1.4
*Office boy (3)	3	1.4
Cashier	2	.9
Receptionist	2	.9
Staff nurse	2	.9
Switchboard operator	2	.9
*Electrician (2)	2	.9
Artist	1	.5
*Appraiser (1)	1	.5
Beautician	1	.5
Assistant buyer	1	.5
Dictaphone operator	1	.5
*Ediphone operator (1)	1	.5
Inspector	1	.5
Library clerk	1	.5
Master checker	1	.5
Messenger	1	.5
Personal shopper	1	.5
Unit operator	1	.5
*Apprentice mechanic (1)	1	.5

TABLE XVI CONTINUED
 TITLES OF POSITIONS IN WHICH THE 211 GRADUATES
 WERE EMPLOYED AT THE TIME OF THE STUDY

Title of Position	Number of Graduates	Per Cent of Returns
*Apprentice carpenter (1)	1	.5
*Apprentice baker (1)	1	.5
*Furniture apprentice (1)	1	.5
*Licensed attendant (1)	1	.5
*Section head (1)	1	.5
*Supervisor (1)	1	.5
No answer	12	5.7
Total	211	100.0

*Number in parenthesis indicates the number of male graduates reporting this title.

As shown by Table XVII, the beginning wages of the 211 respondents ranged from under \$25 to \$60 weekly. The average wages for the five-year period were in the \$30 to \$34 a week range. Sixty-seven, or 31.8 per cent, of the graduates received wages from \$30 to \$34 a week; the next highest percentage, 23.7 per cent, reported weekly wages of \$25 to \$29. Weekly wages of \$35 to \$39 were received by 18.5 per cent, or 39 graduates. Twenty-five graduates did not indicate the

beginning wages. Twenty respondents, or 9.5 per cent, stated that the weekly wages on the initial positions were \$40 and over. The two girls who reported beginning wages of \$60 were registered nurses. The male graduate worked as an appraiser.

TABLE XVII

BEGINNING WAGES OF THE 211 FULL-TIME EMPLOYEES

Wages	No. of Boys	No. of Girls	Total	Per Cent of Returns
Under \$25	1	9	10	4.7
\$25 - \$29	3	47	50	23.7
\$30 - \$34	7	60	67	31.8
\$35 - \$39	3	36	39	18.5
\$40 - \$44	4	9	13	6.2
\$45 - \$49	0	3	3	1.4
\$50 - \$54	1	0	1	.5
\$55 - \$59	0	0	0	.0
\$60 - over	1	2	3	1.4
No answer	2	23	25	11.8
Total	22	189	211	100.0

Table XVIII shows that the wages of the graduates at the time of the study ranged from \$25 to \$60 and over. The

average wages were in the \$40 to \$44 range, an increase of \$10 over the wages in the beginning positions. More than one-third of the respondents indicated that they received wages in the \$40 to \$44 range. The next highest frequency was in the \$35 to \$39 range, with 48, or 22.8 per cent, of the graduates reporting these wages. Thirty-three graduates, or 15.7 per cent, received wages ranging from \$45 to \$49. Seven per cent, or 15 graduates, did not indicate the current wages.

TABLE XVIII
WAGES OF THE 211 GRADUATES AT THE TIME OF THE STUDY

Wages	No. of Boys	No. of Girls	Total	Per Cent of Returns
Under \$25	0	0	0	.0
\$25 - \$29	2	1	3	1.4
\$30 - \$34	3	10	13	6.2
\$35 - \$39	2	46	48	22.8
\$40 - \$44	7	68	75	35.6
\$45 - \$49	4	29	33	15.7
\$50 - \$54	1	11	12	5.7
\$55 - \$59	0	6	6	2.8
\$60 - over	2	4	6	2.8
No answer	1	14	15	7.0
Total	22	189	211	100.0

Eleven of the 13 shown in the \$30 to \$34 range were 1952 graduates, while one was a 1951 graduate, and another was from the class of 1949. Two of the three graduates included in the \$25 to \$29 group were 1952 graduates and one was from the class of 1950. The graduates who reported weekly wages of \$50 and over totaled 24, or 11.3 per cent of the full-time employees.

The initial wages of the 211 respondents are shown in the following table.

TABLE XIX
BEGINNING WAGES OF THE 211 RESPONDENTS BY CLASSES

Wages	1948	1949	1950	1951	1952	Total
Under \$25	2	4	3	0	1	10
\$25 - \$29	13	25	10	0	2	50
\$30 - \$34	9	9	13	18	18	67
\$35 - \$39	1	4	5	10	19	39
\$40 - \$44	1	1	2	2	7	13
\$45 - \$49	2	0	1	0	0	3
\$50 - \$54	0	0	0	1	0	1
\$55 - \$59	0	0	0	0	0	0
\$60 - over	1	0	0	2	0	3
No answer	4	9	6	2	4	25
Total	33	52	40	35	51	211
Median	\$28.54	\$27.10	\$29.88	\$33.80	\$34.63	\$31.03

The median wages for the class of 1952 were \$34.63. The class of 1949 showed the lowest median, \$27.10. The median for the five classes is shown as \$31.03.

The wages received by the respondents at the time of the study are shown in the following table.

TABLE XX
WAGES OF THE 211 RESPONDENTS BY CLASSES
AT THE TIME OF THE STUDY

Wages	1948	1949	1950	1951	1952	Total
Under \$25	0	0	0	0	0	0
\$25 - \$29	0	0	1	0	2	3
\$30 - \$34	0	1	0	1	11	13
\$35 - \$39	2	4	12	10	20	48
\$40 - \$44	11	21	14	16	13	75
\$45 - \$49	8	14	8	2	1	33
\$50 - \$54	6	4	2	0	0	12
\$55 - \$59	1	2	1	2	0	6
\$60 - over	2	2	0	2	0	6
No answer	3	4	2	2	4	15
Total	33	52	40	35	51	211
Median	\$44.81	\$43.55	\$41.28	\$40.90	\$36.63	\$41.27

As indicated in Table XX, the lowest wages received by the graduates at the time of the study were in the \$25 to

\$29 range, and the highest wages were more than \$60 weekly. The highest median is shown for the class of 1948 and the lowest median for the class of 1952. The median for the five years as shown by the table was \$41.27.

Typewriting proved to be the most helpful subject as indicated by 152, or 72 per cent, of the 211 respondents. One hundred three, or 48.8 per cent, reported that English was of the greatest help. Thirty-seven per cent, or 78 respondents, selected bookkeeping as the most helpful subject while 73 graduates, or 34.6 per cent, chose shorthand. The replies of 67, or 31.8 per cent, showed that business arithmetic was the most helpful subject. Two graduates made no reply. The remaining 31, or 14.6 per cent, indicated that business law, history, biology, and the languages were of most value in their work.

TABLE XXI
SUBJECTS MOST HELPFUL TO THE 211 GRADUATES

Subject	Number of Graduates*	Per Cent of Returns
Typewriting	152	72.0
English	103	48.8
Bookkeeping	78	37.0
Shorthand	73	34.6
Business arithmetic	67	31.8
Business law	17	8.0

TABLE XXI CONTINUED
 SUBJECTS MOST HELPFUL TO THE 211 GRADUATES

Subject	Number of Graduates *	Per Cent of Returns
Biology	5	2.4
History	4	1.9
Spanish	3	1.4
French	2	.9
No answer	2	.9

*The graduates listed more than one subject.

The graduates were asked to list the subjects which would have been helpful to them but which they did not have in high school. Seventy-one, or 33.6 per cent, of the graduates who answered this question stated that a course in business machines would have been very helpful to them. Thirteen, or 6.2 per cent, of the respondents indicated that business English would have been of help to them; and 11 graduates, or 5.6 per cent, listed office practice as a subject that would have helped them most. Others listed such subjects as public speaking, mechanics, advanced book-keeping, filing, business writing, and domestic science. Table XXII shows the subjects in order of frequency as listed by the graduates.

TABLE XXII
 SUBJECTS NOT OFFERED IN HIGH SCHOOL WHICH WOULD
 HAVE BEEN HELPFUL TO THE RESPONDENTS

Subject	Number of Graduates	Per Cent of Returns
Business machines	71	33.6
Business English	13	6.2
Office practice	11	5.6
Public speaking	4	1.9
Mechanical course	4	1.9
Advanced bookkeeping	3	1.4
Filing	3	1.4
Domestic science	2	.9
Business writing	2	.9
Drafting	2	.9
Proofreading	1	.5
Electric typewriting	1	.5
Spelling	1	.5
Longer periods of shorthand	1	.5
Longer periods of typewriting	1	.5
Merchandising	1	.5
Current events	1	.5
Mechanical drawing	1	.5
Shop mathematics	1	.5

The following table shows the types of training that the graduates received and the frequency of the responses.

TABLE XXIII
 ADDITIONAL TRAINING RECEIVED BY GRADUATES
 IN FIRST POSITION

Type of Training	Number of Graduates			Per Cent of Total
	Boys	Girls	Total	
Business machines	3	42	45	66.0
Switchboard	0	6	6	9.0
On-the-job training	0	4	4	6.0
Answering telephone	0	3	3	4.0
Sending telegrams	0	1	1	1.5
Greeting salesmen	0	1	1	1.5
Soundex filing	0	1	1	1.5
Filing	0	1	1	1.5
Medical shorthand	0	1	1	1.5
Advanced shorthand	0	1	1	1.5
Posting dates	0	1	1	1.5
Microfilm	0	1	1	1.5
Coding	0	1	1	1.5
Insurance fundamentals	1	0	1	1.5
Total	4	64	68	100.0

Four male graduates reported that they received further business training on their first positions. Three of the four received training in business machines and one in insurance fundamentals.

The girls also reported the need for additional training on their first positions. Two-thirds of the respondents who reported further training were given instruction in the operation of business machines. The remaining 22 received training in the operation of the switchboard, answering the telephone, sending telegrams, filing, coding, greeting salesmen, and on-the-job procedures.

In answer to the question as to whether or not the graduates were satisfied with their present positions, the majority, 82 per cent, indicated that they were satisfied, while 25, or 12 per cent, stated that they were dissatisfied. Six per cent, or 13 respondents, gave no answer. Table XXIV shows that the majority of the graduates were able to adjust themselves to their positions satisfactorily.

TABLE XXIV
JOB SATISFACTION OF THE 211 RESPONDENTS
AT THE TIME OF THE STUDY

Answer	Number of Graduates	Per Cent of Returns
Satisfied	173	82
Dissatisfied	25	12
No answer	13	6
Total	211	100

The graduates who were dissatisfied with their positions were asked to indicate the type of work they desired.

TABLE XXV
TYPES OF POSITIONS DESIRED BY RESPONDENTS WHO WERE
DISSATISFIED AT THE TIME OF THE STUDY

Types of Positions	Number Reporting	Per Cent of Total
Secretary	3	12
Receptionist	3	12
More typing activities	2	8
Electrician	2	8
Bookkeeper-typist	1	4
Bookkeeper-secretary	1	4
Stenographer	1	4
Clerical work	1	4
Position near home	1	4
Greater variety of work	1	4
Teaching	1	4
Bookkeeper	1	4
Professional dancing	1	4
Government position	1	4
School	1	4
Machinist	1	4
Electronics engineer	1	4
Office work	1	4
Advancement	1	4
Total	25	100

As shown in Table XXV, three of the 25 graduates who reported that they were not satisfied stated that they would like secretarial work. Three of the respondents stated that they desired positions as receptionists, and two wanted positions in which they would have more typewriting activities. Some of the remaining graduates indicated that they preferred bookkeeping, stenographic, and clerical positions rather than the type of work they were doing at the time of the study.

The majority of the graduates, 58.8 per cent, reported that they were still working for their original employers. Eighty-seven, or 41.2 per cent, of the respondents changed places of employment since graduation from high school. Among the reasons given by the graduates for making the changes were the following: 41, or 47.2 per cent, desired advancement and higher wages; 10, or 11.5 per cent, wanted a different type of work; three, or 3.5 per cent, did not like the working conditions in the first positions. Twenty-five indicated that they changed places of employment but did not give reasons.

TABLE XXVI
REASONS GIVEN BY THE 87 RESPONDENTS FOR
CHANGING PLACES OF EMPLOYMENT

Reason for Change	Number of Graduates	Per Cent of Total
Better position and higher wages	41	47.2
Different type of work	10	11.5
Did not like working conditions	3	3.5
Moved out of state	2	2.3
First position temporary	2	2.3
Better locality	2	2.3
First position part time	1	1.1
Desired Civil Service position	1	1.1
No answer	25	28.7
Total	87	100.0

As one indication of the adequacy of the business training offered at the high school, the graduates were asked if they had secured additional training since graduation. Of the 211 respondents, 96, or 45.5 per cent, had secured additional training. Twenty-two of the 96, however, took courses other than those of a business nature. Six studied for degrees, four took academic courses, three enrolled in schools of nursing, and others studied chemistry,

art, beauty culture, carpentry, and electricity. The remaining 74 graduates, or 35 per cent of the 211 employed full time, indicated that they took shorthand, typewriting, and office machines courses.

The following table shows the number of respondents who had secured additional business training.

TABLE XXVII
THE NUMBER AND PER CENT OF THE 211 RESPONDENTS EMPLOYED
FULL TIME WHO HAD SECURED ADDITIONAL BUSINESS TRAINING
AFTER GRADUATION FROM HIGH SCHOOL

Class	Graduates Employed Full Time	Number Who Had Secured Additional Business Training	Per Cent of Total
1948	33	15	20
1949	52	30	41
1950	40	11	15
1951	35	6	8
1952	51	12	16
Total	211	74	100

As shown in the above table, the class of 1949 had the highest frequency for school attendance. This was not because of unemployment since 23 of the 30 graduates who had secured additional business training were employed full time and attended school only part time.

Thirteen of the graduates attended business schools full time while the remaining 61 graduates indicated that they worked full time and attended school in the evening.

The reasons given by the graduates for desiring additional business training are shown in Table XXVIII.

TABLE XXVIII
REASONS GIVEN BY THE RESPONDENTS FOR SECURING
ADDITIONAL TRAINING

Reason	Number of Graduates	Per Cent of Total
Higher degree of skill in shorthand	36	37.5
Higher degree of skill in typewriting	23	24.0
Higher degree of skill in office machines	16	16.7
Self-improvement	8	8.3
Advanced accounting	4	4.2
Stenotype	3	3.1
Advanced banking	3	3.1
Further education for present job	2	2.1
Prepare for Civil Service examination	1	1.0
Total	96	100.0

The above table shows that several of the 74 respondents indicated more than one reason for securing additional

training. The majority of the respondents, 61.5 per cent, attended school after graduation because they desired more skill in shorthand and typewriting. Thirty-six graduates reported that they needed more skill in shorthand, and 23 indicated the need for additional training in typewriting. Sixteen respondents, or 16.7 per cent, required skill in office machines. Eight graduates listed "self-improvement" as the reason for their attending school. Other reasons reported by the respondents were: desire to learn Stenotype, advanced banking, and advanced accounting.

A list of the schools attended by the graduates has been added to the Appendix.

Since all of the business education graduates were required to enroll in the two-year shorthand class, the writer was interested in finding what percentage of the graduates actually used their shorthand skill. One hundred twenty-seven, or 60 per cent, of the respondents answered in the negative the question, "Have you used your shorthand skill?" Eighty-four graduates, or 40 per cent, reported that they had used their shorthand skill at some time.

TABLE XXIX
NUMBER OF GRADUATES WHO HAD USED SHORTHAND SKILL

Answer	Number of Graduates	Per Cent of Total
No	127	60
Yes	84	40
Total	211	100

The graduates were also asked to indicate the extent to which they were able to take dictation. Thirty-nine, or 47 per cent, of the respondents were able to take dictation at all times. Seventeen, or 20 per cent, reported that they were able to take dictation most of the time; and 18, or 21 per cent, were able to take it occasionally. Ten, or 12 per cent, did not answer this question.

TABLE XXX
EXTENT TO WHICH THE GRADUATES WERE ABLE TO TAKE DICTATION

Extent of Ability	Number of Graduates	Per Cent of Total
At all times	39	47
Most of the time	17	20
Occasionally	18	21
No answer	10	12
Total	84	100

Seventeen of the 39 graduates who reported that they were able to get the dictation at all times had received additional training after high school graduation. Five of the respondents who indicated that they could take the dictation most of the time reported that they had additional shorthand training, and three who reported that they could get it occasionally had taken additional shorthand courses.

The opinions of the graduates concerning the business education program at Saint John High School are summarized in the following table.

TABLE XXXI
SUGGESTIONS FOR IMPROVING THE BUSINESS
EDUCATION PROGRAM AT ST. JOHN HIGH SCHOOL

Suggestions	Number
Add a course in business machines	96
Add a course in business English	32
Add a course in office procedures	20
Provide more practice in transcription	13
Provide three years of typewriting	12
Provide up-to-date equipment	5
Offer two-year course in bookkeeping	5
Offer a course in occupational information	1
Offer a course in public speaking	1

One hundred sixty-eight, or 62.2 per cent, of the graduates responded that, in their opinion, the program was satisfactory. Several of these respondents, however, suggested that the program be improved. Ninety-six graduates, more than one-third of the 270 respondents, suggested that a course in business machines be included in the program. Business English, in the opinion of 32 respondents, should be taught in the business course. According to the responses of 20 graduates, a course in office procedures should be offered in the business department. Thirteen respondents suggested that more practice be given in transcription. In the opinion of 12 respondents, another year should be added to the typewriting course, while five graduates were of the opinion that a two-year bookkeeping course should be offered. Other opinions expressed by the graduates were as follows: the program was fair; up-to-date equipment should be provided; the seniors should be given a course in occupational information; and a course in public speaking should be offered. Other suggestions are found in the "More-Emphasis-Needed-in-School" column of Table XXXII where the responses are listed according to activities.

Job Activities

The purpose of the check list section of the questionnaire was to determine which office activities were most frequently performed by the graduates. To obtain this

information the responses of the check lists of 178 respondents were tabulated.

Table XXXII shows the total frequencies for the 96 office activities arranged in order from the highest to the lowest frequency of performance. "Rank Number" indicates where each activity falls in the order of total frequencies. The "Total Frequency" column indicates the number of respondents performing the activity. This total was obtained by adding the various frequencies in each of the following columns: "More than two hours daily," "From one to two hours daily," "Less than one hour daily," "Once or twice a week," and "Monthly or less often."

The most frequently performed activity was answering the telephone. One hundred nineteen respondents performed this activity. The lowest total frequency was for the Remington Automatic Printing machine. Only one respondent reported using this machine.

The ten most frequently performed activities according to rank were: answer telephone, address envelopes, copy from handwritten work, handle telephone calls for employer, file alphabetically, fill in printed forms, file numerically, meet callers, type form letters, and type inter-office correspondence. Of these ten activities, five were classified as typing activities; two, as filing; two, as other office activities; and one, as a secretarial activity.

The next ten most frequently performed activities according to rank were: type postal cards or index cards; fold letters and insert into envelopes; type alphabetical lists; open, sort, and distribute mail; type invoices and statements; sort bills, slips, or checks; compose letters at typewriter; type manuscripts and reports; take dictation in shorthand and transcribe; and copy from rough draft. In this second group there were five typing activities, two secretarial activities, two other office activities, and one filing activity.

Of the activities on the check list, the ten which showed the lowest frequency of performance were the activities in which the following machines were used: Burroughs calculator, Burroughs desk bookkeeping machine, Rex-o-graph liquid duplicator, Remington electric accounting machine, Underwood fanfold billing machine, gelatin duplicator, Comptometer for multiplying, Ediphone transcribing machine, Dalton calculator, and Remington Automatic Printing machine. There were other activities reported that were not on the original check list, and these activities were included in the table because they were performed by more than one respondent.

The majority of the typewriting, secretarial, bookkeeping, filing, and other office activities appears in the upper half of the frequency list. Thirty-seven of the 42 office machines activities were ranked low in frequency.

TABLE XXXII

TOTAL FREQUENCIES OF THE 96 ACTIVITIES PERFORMED
BY THE 178 RESPONDENTS AT THE TIME OF THE STUDY,
ARRANGED IN ORDER OF FREQUENCY

Rank Number	Activity	Total Frequency	Approximate Frequency of Performance				
			More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often
1	Answer telephone	119	60	21	31	7	0
2	Address envelopes	118	10	15	45	20	28
3	Copy from handwritten work	107	26	17	19	26	19
4	Handle telephone calls for employer	106	51	13	30	8	4
5	File alphabetically	102	14	21	35	26	6
6	Fill in printed forms	93	17	9	20	20	27
7	File numerically	86	16	14	29	21	6
8	Meet callers	85	44	9	18	8	6
9	Type form letters	83	7	12	20	22	22
10	Type inter-office correspondence	80	11	17	20	15	17
11	Type postal cards or index cards	73	4	9	12	16	32

TABLE XXXII CONTINUED

Rank Number	Activity	Total Frequency	Approximate Frequency of Performance				
			More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often
12	Fold letters and insert into envelopes	70	9	12	27	10	12
13	Type alphabetical lists	67	1	3	6	16	41
14.5	Open, sort, and distribute mail	66	12	10	34	4	6
14.5	Type invoices and statements	66	21	7	10	12	16
16	Sort bills, slips, or checks	65	14	13	19	10	9
17	Compose letters at typewriter	62	7	11	15	16	13
19	Type manuscripts and reports	61	7	7	10	11	26
19	Take dictation in shorthand and transcribe	61	15	12	12	11	11
19	Copy from rough draft	61	9	3	14	17	18
21	Take charge of office during employer's absence	60	21	13	10	8	8
22	Type tabulated work	58	11	9	7	15	16
23	Type master sheets for duplicator	56	7	1	8	14	26
24	Use Burroughs adding-listing machine	54	9	14	16	8	7

TABLE XXXII CONTINUED

Rank Number	Activity	Total Frequency	Approximate Frequency of Performance				
			More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often
25.5	Keep follow-up file	52	6	6	20	17	3
25.5	Cut stencils	52	3	0	5	19	25
27	File by subject	51	4	6	17	15	9
28	Type telegrams	50	1	5	10	13	21
29	Use Royal typewriter	47	30	4	2	7	4
30	Balance cash	43	14	2	14	9	4
31	Do messenger work	41	10	9	5	6	11
32	Make out receipts	40	12	3	15	6	4
33	Do inventory and stock work	38	3	2	8	6	19
34	Make cross references	36	3	3	7	14	9
35	Handle petty cash	34	12	1	11	5	5
36	Do cashier work	32	17	4	5	3	3
37	Figure and check invoices	31	12	8	5	1	5
39	Use electric typewriter	30	20	3	2	3	2
39	Use Comptometer for adding	30	15	6	2	7	0
39	Make bank deposits	30	2	3	12	8	5

TABLE XXXII CONTINUED

Rank Number	Activity	Total Frequency	Approximate Frequency of Performance				
			More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often
41	Post to accounts receivable ledger	28	7	7	6	6	2
42	Type legal forms	25	3	2	2	8	10
43.5	Take dictation from records	23	9	2	1	0	11
43.5	Prepare payroll	23	3	2	2	9	7
45.5	Operate telephone switchboard	22	9	3	4	2	4
45.5	Post to accounts payable ledger	22	4	5	5	5	3
48.5	Prepare monthly bills from ledger	21	1	2	4	1	13
48.5	Post to general ledger	21	6	3	2	4	6
48.5	Use Comptometer for subtracting	21	11	7	1	2	0
48.5	Prepare Government reports	21	2	0	3	2	14
51	Type insurance policies	20	4	5	3	1	7
52.5	Use Comptometer	19	11	1	3	4	0
52.5	Use Remington typewriter	19	6	5	4	2	2
55.5	Use L. C. Smith typewriter	18	9	5	0	2	2
55.5	Use Underwood typewriter	18	12	3	0	2	1

TABLE XXXII CONTINUED

Rank Number	Activity	Total Frequency	Approximate Frequency of Performance				
			More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often
55.5	Reconcile bank statements	18	0	0	0	0	18
55.5	Keep a checkbook	18	2	5	5	4	2
58.5	Use Mimeograph	17	2	3	0	7	5
58.5	Use Ditto liquid duplicator	17	2	0	4	7	4
60	Record entries in journals	16	5	1	6	3	1
61	Take a trial balance	15	1	0	0	6	8
62.5	Use a typewriter	14	9	1	1	2	1
62.5	Use Monroe calculator	14	3	2	3	3	3
64.5	Use Marchant calculator	12	2	3	3	3	1
64.5	Prepare financial statements	12	1	0	0	1	10
66	Friden calculator	10	0	1	2	5	2
68.5	Use Dictaphone transcriber	9	4	0	1	2	2
68.5	Use Sundstrand adding-listing machine	9	3	2	3	1	0
68.5	Use Comptometer for dividing	9	5	2	1	1	0
68.5	Use Victor adding-listing	9	1	3	3	1	1
71.5	Take dictation directly at typewriter	8	0	1	1	2	4

TABLE XXXII CONTINUED

Rank Number	Activity	Total Frequency	Approximate Frequency of Performance				
			More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often
71.5	Use Standard liquid duplicator	8	2	1	1	4	0
73	Use Burroughs calculator	6	2	2	0	2	0
*74	Use I. B. M. machine	5	2	1	1	0	1
*77	Type checks	4	0	2	0	2	0
*77	Use Teletype machine	4	1	0	0	2	1
*77	Use Remington adding machine	4	2	1	1	0	0
77	Use Burroughs desk book-keeping	4	3	1	0	0	0
77	Use Rex-o-graph liquid duplicator	4	0	0	1	2	1
83.5	Use Remington electric accounting machine	3	1	0	1	0	1
83.5	Use Underwood fanfold billing machine	3	2	0	0	0	1
83.5	Use gelatin duplicator	3	1	0	2	0	0
*83.5	Take dictation over telephone	3	0	0	1	2	0
*83.5	Use postage meter	3	1	0	2	0	0
*83.5	Use Addressograph	3	0	0	0	0	3
*83.5	Use Burroughs typewriter-billing machine	3	1	1	0	1	0
*83.5	Use Remington calculator	3	2	0	1	0	0

TABLE XXXII CONTINUED

Rank Number	Activity	Total Frequency	Approximate Frequency of Performance				
			More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often
91.5	Use Comptometer for multiplying	2	1	0	1	0	0
91.5	Use Ediphone transcriber	2	2	0	0	0	0
91.5	Use Dalton calculator	2	1	0	0	1	0
*91.5	Use Clary calculator	2	0	1	0	0	1
*91.5	Use Audograph	2	2	0	0	0	0
*91.5	Use Protectograph	2	0	0	0	2	0
*91.5	Make out checks	2	0	0	1	1	0
*91.5	Use tagging machine	2	2	0	0	0	0
96	Use Remington automatic printing machine	1	0	0	0	1	0

*Not on original check list

The following activities were not on the original check list but they were reported as regular activities by the respondents:

- Type record cards and certificates
- Type purchase orders
- Type employees' time sheets
- File stencils
- Pull cards and certificates from files
- Pull records for court cases
- Figure office index
- Figure and check premiums
- Use collating machine
- Use Remington Rand bookkeeping machine
- Use Burroughs teller machine
- Use National Cash posting machine
- Use Allen-Wales adding-listing machine
- Supervise office supplies
- Keep agents' records

The 96 office activities performed by the graduates were classified under six headings and arranged in order of frequency of performance in each classification. This classified list of activities is shown in Table XXXIII. The first section shows the frequencies of performance for the 96 activities. Section II shows where these activities should be taught in the opinion of the graduates. The third section indicates the activities which the respondents felt needed more emphasis in school.

The typing activities which ranked high in frequency of performance were: address envelopes, copy from handwritten work, fill in printed forms, type form letters, type inter-office correspondence, type postal cards or index cards, type alphabetical lists, type invoices and statements, copy from rough draft, and type manuscripts and reports. In the opinion of the graduates all of these activities except "fill in printed forms" should be taught in school, or both in school and on the job. The graduates also felt that more teaching emphasis should be placed on the following activities: copy from handwritten work, copy from rough draft, and type manuscripts and reports. Although the activity "cut stencils" ranked low in frequency of performance, this activity showed a high frequency in the "More-emphasis-needed-in-school" column.

Among the high-ranking frequencies in the secretarial activities were the following: handle telephone calls for employer, compose letters at typewriter, take dictation in shorthand and transcribe, and take charge of office during employer's absence. The graduates indicated that the activities "compose letters at typewriter," and "take dictation in shorthand and transcribe" should be taught in school, or both in school and on the job. The respondents also indicated that more emphasis is needed in these activities. Although the activity "take dictation from records" ranked

low in frequency, the graduates felt that more emphasis should be placed on the teaching of this activity in school.

The filing activities which showed the highest frequency of performance included the following: file alphabetically; file numerically; and sort bills, slips, or checks. All of the filing activities, with the exception of "sort bills, slips, or checks," should be taught in school, or both in school and on the job, according to the responses of the graduates. The activity "file alphabetically" should receive more emphasis in school, according to the replies of 16 graduates.

The bookkeeping activities ranked low in frequency of performance yet the respondents felt that all of these activities, with the exception of "prepare Government reports," should be taught in school. The frequencies in the "More-emphasis-needed-in-school" column were low for the bookkeeping activities.

According to Table XXXIII, 146 respondents used the typewriter. The next most frequently used office machine, as indicated by the respondents, was the Burroughs adding-listing machine. The activities involving the use of the electric typewriter, Comptometer, telephone switchboard, Ditto liquid duplicator, and Mimeograph were the next highest in frequency of performance. With the exception of the telephone switchboard, the graduates indicated that these machines, in their opinion, should be taught in school.

The machines which the graduates thought should receive more emphasis in school were the Burroughs adding-listing machine, electric typewriter, comptometer, and the Dictaphone.

The other office activities which ranked high in total frequency of performance as shown in Table XXXIII were: answer telephone; meet callers; fold letters and insert into envelopes; and open, sort, and distribute mail. The graduates felt that these activities, with the exception of "fold letters and insert into envelopes," should be taught on the job. Although the two highest-ranking activities in this group, "answer telephone" and "meet callers," were low in school-training frequencies, these activities ranked highest in the "More-emphasis-needed-in-school" column.

TABLE XXXIII

THE TOTAL FREQUENCY OF PERFORMANCE OF THE 96 ACTIVITIES
CLASSIFIED ACCORDING TO TYPE OF ACTIVITY AND ARRANGED
IN ORDER OF FREQUENCY

Activity	Approximate Frequency of Performance						Place to Learn Activity			More emphasis needed in school
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Typing Activities:</u>										
Address envelopes	118	10	15	45	20	28	70	9	34	7
Copy from handwritten work	107	26	17	19	26	19	53	24	21	20
Fill in printed forms	93	17	9	20	20	27	25	48	20	8
Type form letters	83	7	12	20	22	22	39	24	22	4
Type inter-office correspondence	80	11	17	20	15	17	25	36	22	4
Type postal cards or index cards	73	4	9	12	16	32	34	22	17	3
Type alphabetical lists	67	1	3	6	16	41	45	11	14	5
Type invoices and statements	66	21	7	10	12	16	20	22	31	8
Copy from rough draft	61	9	3	14	17	18	39	19	9	13
Type manuscripts and reports	61	7	7	10	11	26	28	20	25	11

TABLE XXXIII CONTINUED

Activity	Approximate Frequency of Performance						Place to Learn Activity			More emphasis needed in school
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Typing Activities (Cont'd.):</u>										
Type tabulated work	58	11	9	7	15	16	46	6	12	8
Type master sheets for duplicator	56	7	1	8	14	26	30	14	18	8
Cut stencils	52	3	0	5	19	25	35	7	13	18
Type telegrams	50	1	5	10	13	21	28	26	11	5
Type legal forms	25	3	2	2	8	10	14	16	9	9
Type insurance policies	20	4	5	3	1	7	10	18	8	4
Type checks	4	0	2	0	2	0	1	1	2	0
<u>Secretarial Activities:</u>										
Handle telephone calls for employer	106	51	13	30	8	4	19	48	23	17
Compose letters at typewriter	62	7	11	15	16	13	36	7	18	22
Take dictation in shorthand and transcribe	61	15	12	12	11	11	60	0	7	12
Take charge of office during employer's absence	60	21	13	10	8	8	5	38	15	1

TABLE XXXIII CONTINUED

Activity	Approximate Frequency of Performance						Place to Learn Activity			More emphasis needed in school
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Secretarial Activities Continued:</u>										
Take dictation from records	23	9	2	1	0	11	26	2	9	11
Take dictation directly at typewriter	8	0	1	1	2	4	8	1	3	2
Take dictation over telephone	3	0	0	1	2	0	1	0	1	1
<u>Filing Activities:</u>										
File alphabetically	102	14	21	35	26	6	69	6	19	16
File numerically	86	16	14	29	21	6	47	11	17	6
Sort bills, slips, or checks	65	14	13	19	10	9	9	29	16	5
Keep follow-up file	52	6	6	20	17	3	15	22	13	4
File by subject	51	4	6	17	15	9	25	10	18	6
Make cross references	36	3	3	7	14	9	18	13	11	4
<u>Bookkeeping Activities:</u>										
Balance cash	43	14	2	14	9	4	20	12	11	6
Handle petty cash	34	12	1	11	5	5	12	15	10	4

TABLE XXXIII CONTINUED

Activity	Approximate Frequency of Performance						Place to Learn Activity			More emphasis needed in school
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Bookkeeping Activities Continued:</u>										
Figure and check invoices	31	12	8	5	1	5	14	10	11	3
Make bank deposits	30	2	3	12	8	5	9	14	9	4
Post to accounts receivable ledger	28	7	7	6	6	2	17	1	12	4
Prepare payroll	23	3	2	2	9	7	6	13	10	5
Post to accounts payable ledger	22	4	5	5	5	3	15	2	10	2
Prepare Government reports	21	2	0	3	2	14	6	15	7	3
Prepare monthly bills from ledger	21	1	2	4	1	13	10	7	6	3
Post to general ledger	21	6	3	2	4	6	19	3	5	3
Keep a checkbook	18	2	5	5	4	2	18	3	4	2
Reconcile bank statements	18	0	0	0	0	18	12	5	8	4
Record entries in journals	16	5	1	6	3	1	15	1	3	2
Take a trial balance	15	1	0	0	6	8	15	1	9	5
Prepare financial statements	12	1	0	0	1	10	10	4	8	5

TABLE XXXIII CONTINUED

Activity	Approximate Frequency of Performance						Place to Learn Activity			
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	More emphasis needed in school
<u>Office Machines Used:</u>										
Burroughs adding-listing	54	9	14	16	8	7	37	4	9	19
Royal typewriter	47	30	4	2	7	4	40	0	2	7
Electric typewriter	30	20	3	2	3	2	21	3	5	13
Comptometer for adding	30	15	6	2	7	0	19	3	4	19
Telephone switchboard	22	9	3	4	2	4	3	19	2	5
Comptometer for subtracting	21	11	7	1	2	0	15	3	3	16
Comptometer	19	11	1	3	4	0	13	3	4	15
Remington typewriter	19	6	5	4	2	2	20	1	0	7
Underwood typewriter	18	12	3	0	2	1	12	0	2	3
L. C. Smith typewriter	18	9	5	0	2	2	14	5	1	4
Ditto liquid duplicator	17	2	0	4	7	4	10	7	6	4
Mimeograph	17	2	3	0	7	5	15	4	4	5
Monroe calculator	14	3	2	3	3	3	9	2	7	7
Typewriter	14	9	1	1	2	1	11	0	1	5
Marchant calculator	12	2	3	3	3	1	8	1	4	6
Friden calculator	10	0	1	2	5	2	7	3	4	6

TABLE XXXIII CONTINUED

Activity	Approximate Frequency of Performance						Place to Learn Activity			
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	More emphasis needed in school
<u>Office Machines Used</u> <u>Continued:</u>										
Victor adding-listing	9	1	3	3	1	1	7	0	4	2
Sundstrand adding-listing	9	3	2	3	1	0	9	2	3	6
Comptometer for dividing	9	5	2	1	1	0	9	2	3	10
Dictaphone transcribing	9	4	0	1	2	2	12	2	2	10
Standard liquid duplicator	8	2	1	1	4	0	7	3	3	5
Burroughs calculator	6	2	2	1	2	0	10	2	3	6
I. B. M. machine	5	2	1	1	0	1	0	3	1	1
Burroughs desk bookkeeping	4	3	1	0	0	0	5	4	1	4
Rex-o-graph liquid duplicator	4	0	0	1	2	1	5	4	2	3
Teletype	4	1	0	0	2	1	0	3	0	0
Remington adding machine	4	2	1	1	0	0	3	1	0	3
Underwood fanfold billing	3	2	0	0	0	1	5	3	2	3
Remington electric accounting	3	1	0	1	0	1	3	3	1	1

TABLE XXXIII CONTINUED

Activity	Approximate Frequency of Performance						Place to Learn Activity			More emphasis needed in school
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Office Machines Used</u> <u>Continued:</u>										
Gelatin duplicator	3	1	0	2	0	0	3	3	3	4
Postage meter	3	1	0	2	0	0	0	3	0	0
Addressograph	3	0	0	0	0	3	0	0	0	0
Burroughs typewriter-billing	3	1	1	0	1	0	0	1	1	0
Remington calculator	3	2	0	1	0	0	1	1	1	2
Comptometer for multiplying	2	1	0	1	0	0	3	1	1	3
Dalton calculator	2	1	0	0	1	0	5	2	3	3
Ediphone transcribing	2	2	0	0	0	0	6	0	2	6
Clary calculator	2	0	1	0	0	1	0	1	0	0
Audograph	2	2	0	0	0	0	2	0	0	0
Protectograph	2	0	0	0	2	0	0	2	0	0
Tagging machine	2	2	0	0	0	0	0	1	0	0
Remington automatic printing	1	0	0	0	1	0	4	3	2	2

TABLE XXXIII CONTINUED

Activity	Approximate Frequency of Performance						Place to Learn Activity			
	Total Frequency	More than two hours daily	From one to two hours daily	Less than one hour daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	More emphasis needed in school
<u>Other Office Activities:</u>										
Answer telephone	119	60	21	31	7	0	13	57	17	11
Meet callers	85	44	9	18	8	6	12	38	18	10
Fold letters and insert into envelopes	70	9	12	27	10	12	36	16	7	2
Open, sort, and distribute mail	66	12	10	34	4	6	9	35	10	2
Do messenger work	41	10	9	5	6	11	4	21	9	0
Make out receipts	40	12	3	15	6	4	11	15	10	2
Do inventory and stock work	38	3	2	8	6	19	7	21	9	1
Do cashier work	32	17	4	5	3	3	3	16	11	0
Make out checks	2	0	0	1	1	0	1	0	1	0

Table XXXIV shows the significance of the total frequencies of the 96 office activities performed by the graduates. In this table the activities which were performed "More than two hours every day" were considered as "Major" activities. The activities which were performed from "One to two hours daily" and "Less than one hour daily" were considered as "Regular" activities. The activities which were performed "Once or twice a week" and "Monthly or less often" were grouped as "Occasional" activities.

The "Major" and "Regular" were then added together and divided by the "Major," "Regular," and "Occasional" to obtain the percentage of frequency of performance.

To determine where these activities should be taught in the opinion of the graduates, the responses for "School" and "Both in school and on the job" were added together and divided by the total of the "In school," "On the job," and "Both in school and on the job" responses.

Of the ten activities which ranked high in total frequency of performance only three had high ratings in favor of school training. The activity "file alphabetically" had a rating of 94 per cent; "address envelopes," 92 per cent; and "numerical filing," 85 per cent.

In the next group of ten activities, a rating of 100 per cent is shown for the activity "take dictation in shorthand and transcribe," while the activity "compose letters at typewriter" had a school-training rating of 89 per cent.

High ratings for school training were also given to the following activities: use typewriter, use Victor adding-listing machine, type tabulated work, post to accounts receivable ledger, record entries in journals, take a trial balance, use Burroughs adding-listing machine, and take dictation directly at the typewriter.

Among the activities which received a low school-training rating were the following: answer telephone; handle telephone calls for employer; fill in printed forms; meet callers; open, sort, and distribute mail; sort bills, slips, or checks; take charge of office during employer's absence; do messenger work; do inventory and stock work; do cashier work; operate telephone switchboard; prepare Government reports; use Teletype machine, and use I. B. M. machine.

TABLE XXXIV

THE SIGNIFICANCE OF THE TOTAL FREQUENCY OF THE 96 ACTIVITIES
PERFORMED BY THE 178 RESPONDENTS

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M + R}{M + R + O}$ *	In school	On the job	Both in school and on the job	$\frac{S + SJ}{S + J + SJ}$ **
1	Answer telephone	119	60	52	7	94	13	57	17	34
2	Address envelopes	118	10	60	48	59	70	9	34	92
3	Copy from handwritten work	107	26	36	45	58	53	24	21	76
4	Handle telephone calls for employer	106	51	43	12	87	19	48	23	47
5	File alphabetically	102	14	56	32	69	69	6	19	94
6	Fill in printed forms	93	17	29	47	49	25	48	20	48
7	File numerically	86	16	43	27	69	47	11	17	85
8	Meet callers	85	44	27	14	84	12	38	18	44
9	Type form letters	83	7	32	44	50	39	24	22	72
10	Type inter-office correspondence	80	11	37	32	60	25	36	22	57

*The sum of "Major" plus "Regular" activities divided by the total of "Major," "Regular," and "Occasional" activities.

**The sum of "In school" plus "Both in school and on the job" responses divided by the total of "In school," "On the job," and "Both in school and on the job" responses.

TABLE XXXIV CONTINUED

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M + R}{M + R + O}$ %	In school	On the job	Both in school and on the job	$\frac{S + SJ}{S + J + SJ}$ %
11	Type postal cards or index cards	73	4	21	48	34	34	22	17	70
12	Fold letters and insert into envelopes	70	9	39	22	69	36	16	7	73
13	Type alphabetical lists	67	1	9	57	15	45	11	14	84
14.5	Open, sort, and distribute mail	66	12	44	10	85	9	35	10	35
14.5	Type invoices and statements	66	21	17	28	58	20	22	31	70
16	Sort bills, slips, or checks	65	14	32	19	71	9	29	16	46
17	Compose letters at typewriter	62	7	26	29	53	36	7	18	89
19	Type manuscripts and reports	61	7	17	37	39	28	20	25	73
19	Take dictation in shorthand and transcribe	61	15	24	22	64	60	0	7	100
19	Copy from rough draft	61	9	17	35	43	39	19	9	72
21	Take charge of office during employer's absence	60	21	23	16	73	5	38	15	34
22	Type tabulated work	58	11	16	31	47	46	6	12	91

TABLE XXXIV CONTINUED

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M + R}{M + R + O}$	In school	On the job	Both in school and on the job	$\frac{S + SJ}{S + J + SJ}$
23	Type master sheets for duplicator	56	7	9	40	29	30	14	18	77
24	Use Burroughs adding-listing machine	54	9	30	15	72	37	4	9	92
25.5	Keep follow-up file	52	6	26	20	62	15	22	13	56
25.5	Cut stencils	52	3	5	44	15	35	7	13	87
27	File by subject	51	4	23	24	53	25	10	18	81
28	Type telegrams	50	1	15	34	32	28	26	11	60
29	Use Royal typewriter	47	30	6	11	77	40	0	2	100
30	Balance cash	43	14	16	13	68	20	12	11	72
31	Do messenger work	41	10	14	17	59	4	21	9	39
32	Make out receipts	40	12	18	10	75	11	15	10	58
33	Do inventory and stock work	38	3	10	25	34	7	21	9	43
34	Make cross references	36	3	10	23	33	18	13	11	69
35	Handle petty cash	34	12	12	10	71	12	15	10	59
36	Do cashier work	32	17	9	6	81	3	16	11	47
37	Figure and check invoices	31	12	13	6	81	14	10	11	71
39	Use electric typewriter	30	20	5	5	83	21	3	5	89

TABLE XXXIV CONTINUED

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M + R}{M + R + O}$	In school	On the job	Both in school and on the job	$\frac{S + SJ}{S + J + SJ}$
39	Use Comptometer for adding	30	15	8	7	77	19	3	4	88
39	Make bank deposits	30	2	15	13	57	9	14	9	56
41	Post to accounts receivable ledger	28	7	13	8	71	17	1	12	97
42	Type legal forms	25	3	4	18	28	14	16	9	59
43.5	Take dictation from records	23	9	3	11	52	26	2	9	95
43.5	Prepare payroll	23	3	4	16	30	6	13	10	55
45.5	Operate telephone switchboard	22	9	7	6	73	3	19	2	21
45.5	Post to accounts payable ledger	22	4	10	8	64	15	2	10	93
48.5	Prepare monthly bills from ledger	21	1	6	14	33	10	7	6	70
48.5	Post to general ledger	21	6	5	10	52	19	3	5	89
48.5	Use Comptometer for subtracting	21	11	8	2	90	15	3	3	86
48.5	Prepare Government reports	21	2	3	16	24	6	15	7	46
51	Type insurance policies	20	4	8	8	60	10	18	8	50

TABLE XXXIV CONTINUED

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M + R *}{M + R + O}$	In school	On the job	Both in school and on the job	$\frac{S + SJ^{**}}{S + J + SJ}$
52.5	Use Comptometer	19	11	4	4	79	13	3	4	85
52.5	Use Remington typewriter	19	6	9	4	79	20	1	0	90
55.5	Use L. C. Smith typewriter	18	9	5	4	78	14	5	1	79
55.5	Use Underwood typewriter	18	12	3	3	83	12	0	2	100
55.5	Reconcile bank statements	18	0	0	18	0	12	5	8	80
55.5	Keep a checkbook	18	2	10	6	67	18	3	4	88
58.5	Use Mimeograph	17	2	3	12	29	15	4	4	83
58.5	Use Ditto liquid duplicator	17	2	4	11	35	10	7	6	70
60	Record entries in journal	16	5	7	4	75	15	1	3	94
61	Take a trial balance	15	1	0	14	67	15	1	9	96
62.5	Use a typewriter	14	9	2	3	71	11	0	1	100
62.5	Use Monroe calculator	14	3	5	6	71	9	2	7	89
64.5	Use Marchant calculator	12	2	6	4	67	8	1	4	92
64.5	Prepare financial statements	12	1	0	11	83	10	4	8	82
66	Use Friden calculator	10	0	3	7	30	7	3	4	79

TABLE XXXIV CONTINUED

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M+R}{M+R+O}$ %	In school	On the job	Both in school and on the job	$\frac{S+SJ}{S+J+SJ}$ %
68.5	Use Dictaphone transcribing machine	9	4	1	4	56	12	2	2	88
68.5	Use Sundstrand adding-listing machine	9	3	5	1	89	9	2	3	80
68.5	Use Comptometer for dividing	9	5	3	1	89	9	2	3	80
68.5	Use Victor adding-listing	9	1	6	2	78	7	0	4	100
71.5	Take dictation directly at typewriter	8	0	2	6	25	8	1	3	92
71.5	Use Standard liquid duplicator	8	2	2	4	50	7	3	3	77
73	Use Burroughs calculator	6	2	2	2	65	10	2	3	85
*74	Use I. B. M. machine	5	2	2	1	80	0	3	1	25
*77	Type checks	4	0	2	2	50	1	1	2	75
*77	Use Teletype machine	4	1	0	3	25	0	3	0	0
*77	Use Remington adding machine	4	2	2	0	100	3	1	0	75
77	Use Burroughs desk bookkeeping	4	3	1	0	100	5	4	1	60
77	Use Rex-o-graph liquid duplicator	4	0	1	3	25	5	4	2	64

TABLE XXXIV CONTINUED

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M + R}{M + R + O} \%$	In school	On the job	Both in school and on the job	$\frac{S + SJ}{S + J + SJ} \%$
83.5	Use Remington electric accounting machine	3	1	1	1	67	3	3	1	57
83.5	Use Underwood fanfold billing machine	3	2	0	1	67	5	3	2	70
83.5	Use gelatin duplicator	3	1	2	0	100	3	3	3	67
*83.5	Take dictation over telephone	3	0	1	2	33	1	0	1	100
*83.5	Use postage meter	3	1	2	0	100	0	3	0	0
*83.5	Use Addressograph	3	0	0	3	0	0	0	0	0
*83.5	Use Burroughs typewriter-billing machine	3	1	1	1	67	0	1	1	100
*83.5	Use Remington calculator	3	2	1	0	100	1	1	1	67
91.5	Use Comptometer for multiplying	2	1	1	0	100	3	1	1	80
91.5	Use Ediphone transcribing	2	2	0	0	100	6	0	2	100
91.5	Use Dalton calculator	2	1	0	1	50	5	2	3	80
*91.5	Use Clary calculator	2	0	1	1	50	0	1	0	0
*91.5	Use Audograph	2	2	0	0	100	2	0	0	100

TABLE XXXIV CONTINUED

Rank Number	Activity	Total Frequency	Major Activity (More than 2 hrs. daily)	Regular Activity (From 1 - 2 hrs. daily) (Less than 1 hr. daily)	Occasional Activity (Once or twice a week) (Monthly or less often)	$\frac{M + R}{M + R + O}$ *	In school	On the job	Both in school and on the job	$\frac{S + SJ}{S + J + SJ}$ **
#91.5	Use Protectograph	2	0	0	2	0	0	2	0	0
#91.5	Make out checks	2	0	1	1	50	1	0	1	100
#91.5	Use tagging machine	2	2	0	0	100	0	1	0	0
96	Use Remington automatic printing machine	1	0	0	1	0	4	3	2	67

*Not on original check list

The findings reported in Tables XXXIII, XXXIII, and XXXIV are summarized in Table XXXV. In this table the activities are classified according to type of activity. Within each classification the activities are listed in order of rank, and for each activity both a time-frequency rating and a school-training rating are given in per cent.

Although the first ten typing activities listed in Table XXXV were high in total frequency of performance, only five had time-frequency ratings of over 50 per cent. Both the activities "type inter-office correspondence" and "type insurance policies" had a time-frequency rating of 60 per cent, while the school-training ratings for these activities were 57 and 50 per cent, respectively. The activities "type alphabetical lists" and "cut stencils" were in the upper third of the total frequency list, yet the time-frequency rating for both of these activities was 15 per cent. This rating was low because the activities were performed only occasionally. The school-training ratings for these activities were high. The typing activities which had a school-training rating of 90 per cent or higher were "address envelopes" and "type tabulated work."

The secretarial activities which rated high in time-frequency were "handle telephone calls for employer," 87 per cent, and "take charge of office during employer's absence," 73 per cent. "Compose letters at typewriter"

had a time-frequency rating of 53 per cent and a school-training rating of 89 per cent. Other activities which had a high rating in school training were as follows: take dictation in shorthand and transcribe, take dictation over telephone, take dictation from records, and take dictation directly at typewriter.

The activity "sort bills, slips, or checks" had the highest time-frequency rating for the filing activities. The only filing activity which received a school-training rating of over 90 per cent was "file alphabetically." "File numerically" had a rating of 85 per cent, while "file by subject" had a rating of 81 per cent.

"Balance cash" was the only bookkeeping activity which ranked in the upper third of the total frequency list. This activity had a time-frequency rating of 68 per cent and a school-training rating of 72 per cent. The following activities had a time-frequency rating of 70 per cent or higher: figure and check invoices, prepare financial statements, handle petty cash, post to accounts receivable ledger, and record entries in journals. The activities which had a school-training rating of 90 per cent or higher were: post to accounts receivable ledger, post to accounts payable ledger, record entries in journals, and take a trial balance.

The office machines activities, which ranked in the upper half of the total frequency list, had a time-frequency rating of 73 per cent or higher. These activities, with the exception of "telephone switchboard," received a high rating in school training. Other office machines which received school-training ratings of 80 per cent or higher were: Comptometer, Remington typewriter, Underwood typewriter, Mimeograph, Monroe calculator, Marchant calculator, Victor adding-listing, Sundstrand adding and listing, Dictaphone transcribing, and Burroughs calculator.

The majority of the other office activities had high time-frequency ratings. "Answer telephone" had the highest time-frequency rating, 94 per cent, and the lowest school-training rating, 34 per cent. The activity which received the highest school-training rating was "fold letters and insert into envelopes." The remaining activities had low school-training ratings.

In Chapter V the findings are summarized and recommendations are made for the improvement of the business program.

TABLE XXXV

SIGNIFICANCE OF ACTIVITIES IN EACH CLASSIFICATION

Rank	Activity	Time- frequency Rating in Per Cent	School- training Rating in Per Cent
<u>Typing Activities</u>			
2	Address envelopes	59	92
3	Copy from handwritten work	58	76
6	Fill in printed forms	49	48
9	Type form letters	50	72
10	Type inter-office corres- pondence	60	57
11	Type postal cards or index cards	34	70
13	Type alphabetical lists	15	84
14.5	Type invoices and statements	58	70
19	Copy from rough draft	43	72
19	Type manuscripts and reports	39	73
22	Type tabulated work	47	91
23	Type master sheets for duplicator	29	77
25.5	Cut stencils	15	87
28	Type telegrams	32	60
42	Type legal forms	28	59
51	Type insurance policies	60	50
*77	Type checks	50	75

TABLE XXXV CONTINUED

Rank	Activity	Time- frequency Rating in Per Cent	School- training Rating in Per Cent
<u>Secretarial Activities</u>			
4	Handle telephone calls for employer	87	47
17	Compose letters at typewriter	53	89
19	Take dictation in shorthand and transcribe	64	100
21	Take charge of office during employer's absence	73	34
43.5	Take dictation from records	52	95
71.5	Take dictation directly at typewriter	25	92
*83.5	Take dictation over telephone	33	100
<u>Filing Activities</u>			
5	File alphabetically	69	94
7	File numerically	69	85
16	Sort bills, slips, or checks	71	46
25.5	Keep follow-up file	62	56
27	File by subject	53	81
34	Make cross references	33	69
<u>Bookkeeping Activities</u>			
30	Balance cash	68	72
35	Handle petty cash	71	59
37	Figure and check invoices	81	71
39	Make bank deposits	57	56

TABLE XXXV CONTINUED

Rank	Activity	Time- frequency Rating in Per Cent	School- training Rating in Per Cent
<u>Bookkeeping Activities</u> <u>Continued</u>			
41	Post to accounts receivable ledger	71	97
43.5	Prepare payroll	30	55
45.5	Post to accounts payable ledger	64	93
48.5	Prepare Government reports	24	46
48.5	Prepare monthly bills from ledger	33	70
48.5	Post to general ledger	52	89
55.5	Keep a checkbook	67	88
55.5	Reconcile bank statements	0	80
60	Record entries in journals	75	94
61	Take a trial balance	67	96
64.5	Prepare financial statements	83	82
<u>Office Machines Used</u>			
24	Burroughs adding-listing	72	92
29	Royal typewriter	77	100
39	Electric typewriter	83	89
39	Comptometer for adding	77	88
45.5	Telephone switchboard	73	21
48.5	Comptometer for subtracting	90	86

TABLE XXXV CONTINUED

Rank	Activity	Time- frequency Rating in Per Cent	School- training Rating in Per Cent
<u>Office Machines Used</u> <u>Continued</u>			
52.5	Comptometer	79	85
52.5	Remington typewriter	79	90
55.5	Underwood typewriter	83	100
55.5	L. G. Smith typewriter	78	79
58.5	Ditto liquid duplicator	35	70
58.5	Mimeograph	29	83
62.5	Monroe calculator	71	89
62.5	Typewriter	71	100
64.5	Marchant calculator	67	92
66	Friden calculator	30	79
68.5	Victor adding-listing	78	100
68.5	Sundstrand adding and listing	89	80
68.5	Comptometer for dividing	89	80
68.5	Dictaphone transcribing	56	88
71.5	Standard liquid duplicator	50	77
73	Burroughs calculator	65	85
*74	I. B. M. machine	80	25
77	Burroughs desk bookkeeping	100	60
77	Rex-o-graph liquid duplicator	25	64
*77	Teletype	25	0
*77	Remington adding machine	100	75

TABLE XXXV CONTINUED

Rank	Activity	Time- frequency Rating in Per Cent	School- training Rating in Per Cent
<u>Office Machines Used</u> Continued			
83.5	Underwood fanfold billing	67	70
83.5	Remington electric accounting	67	57
83.5	Gelatin duplicator	100	67
*83.5	Postage meter	100	0
*83.5	Addressograph	0	0
*83.5	Burroughs typewriter-billing	67	100
*83.5	Remington calculator	100	67
91.5	Comptometer for multiplying	100	80
91.5	Dalton calculator	50	80
91.5	Ediphone transcribing	100	100
*91.5	Clary calculator	50	0
*91.5	Audograph	100	100
*91.5	Protectograph	0	0
*91.5	Tagging machine	100	0
96	Remington automatic printing	0	67
<u>Other Office Activities</u>			
1	Answer telephone	94	34
8	Meet callers	84	44
12	Fold letters and insert into envelopes	69	73
14.5	Open, sort, and distribute mail	85	35

TABLE XXXV CONTINUED

Rank	Activity	Time- frequency Rating in Per Cent	School- training Rating in Per Cent
<u>Other Office Activities Continued</u>			
31	Do messenger work	59	39
32	Make out receipts	75	58
33	Do inventory and stock work	34	43
36	Do cashier work	81	47
*91.5	Make out checks	50	100

*Not on original check list

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CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This study was made to determine the effectiveness of the business education program and to determine the duties most frequently performed by the graduates, with implications for curriculum revision.

The findings relating to the work experiences of the graduates were as follows:

1. Of the 290 survey report forms mailed, 270, or 93 per cent were completed and returned. The response for the classes of 1951 and 1952 was 100 per cent. The per cent of response from the boys was slightly more than that of the girls.
2. The majority of the graduates indicated that they were doing work for which they had been trained in school. Of the 211 graduates employed full time, 178, or 84.4 per cent, were employed in office work.
3. Eighty-five graduates, or 40 per cent of the respondents, obtained their first positions before graduation. All of the graduates were employed in full-time positions within ten months after graduation.
4. The respondents obtained their first positions through the following sources: through their own efforts, 40.7 per cent; through relatives or friends, 29.4 per cent; through the high school, 10.9 per cent; through the U. S. Employment Agency, 7.6 per cent. The remaining 10 per cent were placed in first positions through business schools, private agencies, and Civil Service.
5. Ninety-seven graduates, or 46 per cent, were not required to take employment tests in order to secure beginning positions.

6. The intelligence test was the one most frequently given to the applicants for beginning positions. Typewriting and transcription ranked next in order. The combination most frequently administered was the intelligence and typewriting tests which were given to 28 of the graduates. Eight graduates indicated that they were given a combination of typewriting and transcription, while five reported taking a combination of intelligence, typewriting, and transcription tests.
7. The largest percentage of graduates found their beginning positions in insurance offices. Manufacturing concerns employed the next largest number. Others found employment in department stores, public utilities, professional, and banking offices.
8. At the time of the study, the largest percentage of graduates, 22.3 per cent, was employed in manufacturing concerns. Insurance offices employed the next largest number, or 17.5 per cent. The public utilities employed 15.2 per cent, as compared with 8.5 per cent in the beginning positions. One-half of the 20 respondents employed in department stores in their beginning positions entered other types of businesses.
9. The majority of the graduates showed a preference for large offices both in their initial positions and in the positions held at the time of the study.
10. In their beginning positions, 33.6 per cent of the respondents were classified as clerks; 13.2 per cent, as stenographers and secretaries; 13.1 per cent, as typists; 4.3 per cent, as bookkeepers; and 2.4 per cent, as office machine operators.
11. The beginning wages of the 211 respondents ranged from under \$25 to \$60 weekly. The average wages for the five-year period were in the \$30 - \$34 a week range.
12. At the time of the study, the wages ranged from \$25 to \$60 and over. The average wages were in the \$40 - \$44 a week range. More than one-third of the respondents reported weekly wages in the \$40 - \$44 range. Twenty-five graduates reported wages of \$50 and over.

13. Typewriting was the most helpful subject for 72 per cent of the respondents; English, for 48.8 per cent; bookkeeping, for 37 per cent; shorthand, for 34.6 per cent; and business arithmetic, for 31.8 per cent.
14. One-third of the graduates indicated that a course in business machines would have been helpful to them; 6.2 per cent indicated that business English would have been helpful; and 5.6 per cent listed office practice as a course that would have been helpful to them.
15. Forty-two graduates, or two-thirds of the respondents who reported further training, received instruction in the operation of business machines.
16. The majority of the graduates indicated that they were able to adjust themselves to their positions satisfactorily. Only 12 per cent reported that they were dissatisfied.
17. The majority of the graduates reported that they were working for their original employers. The desire for advancement and higher wages and a different type of work were the reasons given by the respondents who had changed places of employment.
18. Seventy-four graduates, or 35 per cent of the 211 employed full time, took additional courses in shorthand, typewriting, and office machines. Thirteen attended school full time; 61 worked full time and attended school part time.
19. The majority of the graduates, 60 per cent, reported that they had not used their shorthand skill; 40 per cent used it at some time.
20. Thirty-nine, or 46.6 per cent, of the 84 respondents were able to take dictation at all times; 17, or 20.2 per cent, most of the time; and 18, or 21.4 per cent, were able to take it occasionally.
21. The graduates suggested that courses in office machines, business English, and office practice should be included in the business program, and that more practice be provided in transcription.

Office Activities

The findings relating to the office activities performed by the graduates were as follows:

1. The ten most frequently performed activities according to rank were: answer telephone, address envelopes, copy from handwritten work, handle telephone calls for employer, file alphabetically, fill in printed forms, file numerically, meet callers, type form letters, and type inter-office correspondence.
2. The following typing activities ranked high in frequency of performance: address envelopes, copy from handwritten work, fill in printed forms, type form letters, type inter-office correspondence, type postal cards or index cards, type alphabetical lists, type invoices and statements, copy from rough draft, and type manuscripts and reports. Although these activities were high in total frequency of performance, only five had a time-frequency rating of over 50 per cent. In the opinion of the graduates all of these activities except "fill in printed forms" should be taught in school, or both in school and on the job. The typing activities which had a school-training rating of 90 per cent or higher were "address envelopes" and "type tabulated work."
3. Among the high-ranking frequencies in the secretarial activities were the following: handle telephone calls for employer, compose letters at typewriter, take dictation in shorthand and transcribe, and take charge of office during employer's absence. The activities which rated high in time-frequency were "handle telephone calls for employer," 87 per cent, and "take charge of office during employer's absence," 73 per cent. All the activities concerning the taking of dictation had school-training ratings above 90 per cent, while "compose letters at typewriter" had a school-training rating of 89 per cent.

4. The filing activities which showed high frequencies of performance were the following: file alphabetically; file numerically; and sort bills, slips, or checks. The graduates felt that all of the filing activities, with the exception of "sort bills, slips, or checks," should be taught in school, or both in school and on the job.
5. The bookkeeping activities ranked low in frequency of performance. The only activity which ranked in the upper third of the total frequency list was "balance cash." This activity had a time-frequency rating of 68 per cent and a school-training rating of 72 per cent. The activities which had a time-frequency rating of 70 per cent or higher were: figure and check invoices, prepare financial statements, handle petty cash, post to accounts receivable ledger, and record entries in journals. The graduates indicated that all of the foregoing activities, with the exception of "preparing Government reports," should be taught in school. Only 4.3 per cent of the respondents reported that they were bookkeepers.
6. Next to the typewriter, the most frequently used office machine was the Burroughs adding-listing machine. The electric typewriter, Comptometer, telephone switchboard, Ditto liquid duplicator, and Mimeograph ranked next in frequency of performance. With the exception of the "telephone switchboard" these activities received a high rating in school training. Other office machines which had a school-training rating of 80 per cent or higher were: Mimeograph, Monroe calculator, Marchant calculator, Victor adding-listing, Sundstrand adding and listing, Dictaphone transcribing, and Burroughs calculator.
7. The other office activities which ranked high in total frequency of performance were: answer telephone; meet callers; fold letters and insert into envelopes; and open, sort, and distribute mail. With the exception of "fold letters and insert into envelopes," the graduates felt that these activities should be taught on the job. The majority of the other office activities had high time-frequency ratings. "Answer telephone" had the highest time-frequency rating, 94 per cent, and the lowest school-training rating, 34 per cent.

Recommendations

The findings of this study are based on the experiences and opinions of the graduates only. A study was not made of the recommendations of teachers or of the employers' reactions to determine whether or not the graduates were efficient office employees.

The following recommendations are based on the findings of the study:

1. According to the frequency of response of the graduates, the following typing activities should be given more attention in the type-writing course: copy from handwritten work, address envelopes, fill in printed forms, type form letters, type inter-office correspondence, type invoices and statements, and compose letters at typewriter.
2. Consideration should be given to offering a course in office practice in which the students would receive training in the techniques of applying for a position, answering the telephone, and meeting callers.
3. Consideration should be given to offering instruction in alphabetical and numerical filing, taking dictation from records, the use of the adding-listing machine, Comptometer, electric typewriter, and liquid duplicator.
4. Several graduates indicated that a course in business English would have been helpful to them. Consideration should be given to making this subject available to all business students.
5. A class in transcription should be formed so that there would be more time available in the typing class for the activities which need emphasis.

6. Since the survey was made, the introduction of Gregg Simplified shorthand has remedied the need for more instruction in that subject. More time is now available for developing skill in taking dictation and transcribing.
7. Since only 40 per cent of the graduates used their shorthand skill, and only 13.2 per cent used shorthand in their initial positions, it would seem that this subject should not be required of every student in the business curriculum. Only the students who show ability in this subject should be allowed to take a second year of shorthand.
8. A study should be made of the employers to determine whether or not the graduates have been efficient office workers.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Bronstein, Joseph E., "A Follow-up Study of the 1949 and 1950 Business Graduates of Manchester Central High School, Manchester, N. H.," Master's Thesis, Boston University, 1951, p. 55.
- Donohue, James Leo, "A Follow-Up Study of the Business Graduates of 1948-1949 of Cambridge High School, With Implications for Curriculum Revision," Master's Thesis, Boston University, 1951, 76 pp.
- Enterline, H. G., "Trends of Thought in Business Education," Monograph 72, South-Western Publishing Company, Cincinnati, March, 1949, p. 23.
- McVey, Jennie, "A Job Analysis of Duties and Tasks Performed by Typists in a Large Community," Master's Thesis, Boston University, 1949, 124 pp.
- Noonan, Mary M., "A Follow-up Study of the 1946 and 1947 Business Graduates of X High School," Master's Thesis, Boston University, 1949, 47 pp.
- Radzukinas, Anna, "A Follow-up Study and a Job-Activity Analysis of the 1946, 1947, 1948, 1949, and 1950 Four-Year Secretarial Major Graduates of Boston University College of Practical Arts and Letters," Master's Thesis, Boston University, 1951, p. 79.
- Ryan, Mary A., "A Job-Activity Analysis and Follow-up Study of the 1946, 1947, 1948 Business Department Graduates of Nashua High School, Nashua, N. H.," Master's Thesis, Boston University, 1949, p. 72.
- Stockman, Edgar Russell, "An Integrated Office Practice Course of Study for Secondary Schools," National Association of Business Teacher-Training Institutions, Harrisonburg, Virginia, Bulletin No. 50, March, 1950, p. 12.
- Thatcher, Carolyn A., "A Job-Activity Analysis and Follow-up Study of 1947, 1948, and 1949 Graduates of the Business Department of Gardner High School, Gardner, Massachusetts," Master's Thesis, Boston University, 1950, 78 pp.

BIBLIOGRAPHY CONTINUED

- Toner, James John, "A Follow-Up Study of the 1947-1950 Graduates of the Business Department of the Arlington High School," Master's Thesis, Boston University, 1951, 109 pp.
- Tonne, Herbert A., "Trends and Factors Affecting Curriculum Revision in Business Education," Fourteenth Yearbook, Eastern Commercial Teachers Association, Philadelphia, 1941, p. 41.

APPENDIX

SAINT JOHN HIGH SCHOOL
N. Cambridge, Mass.

109

October 15, 1952

Dear

Will you please fill out the attached survey report for me. I am making a survey of our graduates to obtain information that will be helpful to us in improving our present business program and that will help our business pupils who are still in school.

It will take only a few minutes of your time to check this report. On the last three pages, check the duties you are performing in your present position. If you are not engaged in office work, will you please check as many items as possible on the first three pages?

This information will be kept strictly confidential. You do not need to sign your name. The forms are numbered only for convenience in checking the returns.

Will you please return the report in the enclosed self-addressed, stamped envelope by October 25.

Your cooperation will be greatly appreciated.

Sincerely yours,

Sister Mary Joachim

Enc.

A SURVEY OF THE WORK EXPERIENCES OF THE SAINT JOHN GRADUATES FOR THE YEARS 1948, 1949, 1950, 1951, and 1952

1. Please check the statement which describes how you are employed now.

- 1. () Employed for wages full time
- 2. () Employed for wages part time
- 3. () Unemployed and seeking work
- 4. () In armed forces
- 5. () Housewife
- 6. () In school full time
- 7. () In school part time
- 8. () Other: _____

2. When did you obtain your first position?

_____ weeks before high school graduation.
 _____ weeks after high school graduation.

3. In what types of businesses have you been employed?

<u>Types of Businesses</u>	<u>First Position</u>	<u>Present Position</u>
Automobile Sales	_____	_____
Banking.	_____	_____
Civil Service.	_____	_____
Department Store	_____	_____
Educational Institution.	_____	_____
Insurance.	_____	_____
Manufacturing.	_____	_____
Professional	_____	_____
Public Utilities	_____	_____
Publishing	_____	_____
Other: _____	_____	_____

4. Please list the places where you have been employed.

<u>Name of Company</u>	<u>City</u>	<u>Dates of Employment</u>	
		<u>From</u>	<u>To</u>
First position			
Present position			

5. Please state approximate number of employees in your department.

First position: _____ employees.
 Present position: _____ employees.

6. Please check sources through which you obtained positions.

<u>Sources</u>	<u>First Position</u>	<u>Present Position</u>
Found the position myself.	_____	_____
Through the high school.	_____	_____
Private agency	_____	_____
Civil Service.	_____	_____
Relative or friend	_____	_____
U. S. Employment Agency.	_____	_____
Other: _____	_____	_____

7. What types of employment tests were you required to take?

<u>Types of Tests</u>	<u>First Position</u>	<u>Present Position</u>
Intelligence	_____	_____
Typewriting	_____	_____
Transcription	_____	_____
Office Machines	_____	_____
No test	_____	_____
Other: _____	_____	_____

8. Please list the title of your first position. _____

Please list the title of your present position. _____

9. Please check weekly wages on first and present full-time positions.

<u>Wages</u>	<u>Beginning Wages on First Position</u>	<u>Current Wages on Present Position</u>
Under \$25.	_____	_____
\$25 - 29	_____	_____
\$30 - 34	_____	_____
\$35 - 39	_____	_____
\$40 - 44	_____	_____
\$45 - 49	_____	_____
\$50 - 54	_____	_____
\$55 - 59	_____	_____
\$60 - Over	_____	_____

10. What kind of additional training was it necessary for you to receive in your first position?

11. Are you satisfied with your present position? Yes _____ No _____

12. If you are not satisfied with your position, what type of position do you desire?

13. If you have changed your place of employment, please give reason for making the change.

14. If you have had further education since leaving high school, please list the schools attended and the courses taken.

<u>Name of School</u>	<u>Courses taken</u>	<u>Day or Evening</u>	<u>Dates</u>	
			<u>From</u>	<u>To</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

15. Please check reason for taking the above courses.

- 1. () Needed a higher degree of skill in shorthand
- 2. () Needed a higher degree of skill in typewriting
- 3. () Needed skill in the operation of office machines
- 4. () Other reasons: _____

16. Which high school subjects have been most helpful to you in your work?

- 1. () Shorthand
- 2. () Typewriting
- 3. () Bookkeeping
- 4. () English
- 5. () Business Arithmetic
- 6. () Business Law
- 7. () Biology
- 8. () History
- 9. () Spanish

17. Please list any subjects not offered in the high school which would have been helpful to you.

(1) _____; (2) _____; (3) _____.

18. Have you used your shorthand skill? Yes _____ No _____

19. If you take shorthand from a dictator, check the extent to which you are able to take the dictation.

- 1. () at all times
- 2. () most of the time
- 3. () occasionally

20. Please give your frank opinion of the business education program at St. John's.

CHECK LIST OF ACTIVITIES PERFORMED IN PRESENT POSITION

- DIRECTIONS:**
1. Check one of the columns in Section I to indicate how often you perform the activity.
 2. Check one of the columns of Section II to indicate where the activity should be taught.
 3. Check Section III if you think that more emphasis should be given to this activity in school.

Activity	SECTION I					SECTION II			III
	Approximate number of hours					Where this should be taught			More emphasis needed in school
	More than 2 hrs. daily	From 1 - 2 hrs. daily	Less than 1 hr. daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Typing Activities</u>									
1. Address envelopes									
2. Copy from handwritten work									
3. Copy from rough draft									
4. Cut stencils									
5. Fill in printed forms									
6. Type alphabetical lists									
7. Type form letters									
8. Type inter-office correspondence									
9. Type manuscripts and reports *									
10. Type master sheets for duplicator									
11. Type postal cards or index cards									
12. Type tabulated work									
13. Type telegrams									
14. Type invoices and statements									
15. Type insurance policies									
16. Type legal forms									
17. Other activities not listed:									
<u>Secretarial Activities</u>									
18. Compose letters at typewriter									
19. Handle telephone calls for employer									
20. Take charge of office during employer's absence									
21. Take dictation directly at typewriter									
22. Take dictation in shorthand and transcribe									
23. Take dictation from records									
24. Other activities not listed:									

Activity	SECTION I					SECTION II			III
	Approximate number of hours					Where this should be taught			More emphasis needed in school
	More than 2 hrs. daily	From 1 - 2 hrs. daily	Less than 1 hr. daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Filing Activities</u>									
25. File alphabetically									
26. File numerically									
27. File by subject									
28. Make cross references									
29. Keep follow-up file									
30. Sort bills, slips, or checks									
31. Other filing activities:									
<u>Bookkeeping Activities</u>									
32. Handle petty cash.									
33. Prepare payroll									
34. Balance cash									
35. Keep a checkbook									
36. Make bank deposits									
37. Reconcile bank statements									
38. Prepare Government reports									
39. Prepare monthly bills from ledger									
40. Record entries in journals									
41. Post to General Ledger									
42. Post to Accounts Receivable ledger									
43. Post to Accounts Payable ledger									
44. Take a Trial Balance									
45. Prepare Financial Statements									
46. Figure and check invoices									
47. Other bookkeeping activities:									
<u>Office Machine Activities</u>									
Operate the following machines:									
48. Standard Liquid Duplicator									
49. Ditto Liquid Duplicator									
50. Rex-o-graph Liquid Duplicator									
51. Mimeograph									
52. Gelatin Duplicator									

Activity	SECTION I					SECTION II			III
	Approximate number of hours					Where this should be taught			More emphasis needed in school
	More than 2 hrs. daily	From 1 - 2 hrs. daily	Less than 1 hr. daily	Once or twice a week	Monthly or less often	In school	On the job	Both in school and on the job	
<u>Office Machine Activities (Cont'd.)</u>									
53. Burroughs Adding-Listing									
54. Victor Adding-Listing									
55. Sundstrand Adding and Listing									
56. Remington Automatic Printing									
57. Dalton Calculator									
58. Burroughs Calculator or									
59. Comptometer									
60. for adding									
61. for subtracting									
62. for multiplying									
63. for dividing									
64. Monroe Calculator									
65. Friden Calculator									
66. Marchant Calculator									
67. Ediphone Transcribing									
68. Dictaphone Transcribing									
69. Underwood Fanfold Billing									
70. Elliott-Fisher Accounting									
71. Burroughs Desk Bookkeeping									
72. Remington Electric Accounting									
73. Typewriter:									
74. Royal									
75. Underwood									
76. Remington									
77. L. C. Smith									
78. Electric									
79. Other:									
80. Telephone Switchboard									
81. Other office machines not listed:									
<u>Other Office Activities</u>									
82. Answer telephone									
83. Meet callers									
84. Do cashier work									
85. Do inventory and stock work									
86. Do messenger work									
87. Fold letters and insert into envelopes									
88. Open, sort, and distribute mail									
89. Make out receipts									
90. Other office activities:									

SCHOOLS ATTENDED BY BOYS AFTER GRADUATION
FROM HIGH SCHOOL

School	Number of Graduates
Bentley School of Accounting and Finance	5
Northeastern University	2
Boston Trade School	1
Coyne Electrical School	1
Holy Ghost Hospital	1
Medford Trade School	1
U. S. N. R. Training School	1
Total	12

SCHOOLS ATTENDED BY GIRLS AFTER GRADUATION
FROM HIGH SCHOOL

Schools	Number of Graduates
Burdett College	12
Bryant and Stratton School	11
Boston College Intown	5
Cambridge High and Latin School	5
Comptometer School	4
Boston University	4
Harvard University	4
Stenotype Institute	4
American Institute of Banking	3
Burroughs Machine School	3
Chandler School for Women	3
Somerville High School	3
Fay Business School	2
Hickox Secretarial School	2
I. B. M. School	2
Stratford School	2
Aviation Training School	2
Bentley School of Accounting and Finance	1
Boston College School of Nursing	1
Charlestown High School	1
La Salle Extension School	1
Medford High School	1
Mt. St. Mary's Academy	1
Rindge Technical School	1
Saint Elizabeth's Hospital	1
Saint Mary's Hospital	1
University Secretarial School	1
Vesper George School of Art	1
Wilfred Academy	1
Winslow Secretarial School	1
Total	84

FIRMS EMPLOYING MALE RESPONDENTS IN FIRST POSITIONS.

Company	Location
Barry Corporation	Watertown
Cambridge Tool Manufacturing Co.	Cambridge
Craftsman Insurance Company	Boston
Empire Electrical Company	Cambridge
Evergood Market	Cambridge
Freddie's Doughnut Company	Arlington
General Latex Company	Cambridge
Goff's Auto Service	Cambridge
John Hancock Insurance Company	Boston
Harvard Cooperative Society	Cambridge
Harvard University	Cambridge
Holy Ghost Hospital	Cambridge
Jordan Marsh Company	Boston
Humphries Bruce Insurance Company	Boston
Lampson, Inc.	Boston
NEGEA Service	Cambridge
O'Brien, Russell Insurance Co.	Boston
Spinelli Construction	Cambridge
United Farmers	Boston
Western Electric Company	Watertown
Zahka Bros.	Cambridge

FIRMS EMPLOYING FEMALE RESPONDENTS IN FIRST POSITIONS

Company	Location
A & P Food Company	Boston
Air Force Research Center	Boston
Allied Building Credits, Inc.	Boston
Allis-Chalmers Manufacturing Co.	Boston
American Mutual Insurance Company	Boston
Anderson Products Inc.	Cambridge
Associated Transportation Co.	Cambridge
Austin Hastings Company	Cambridge
B. B. Chemical Company	Cambridge
Barrett, John W. Insurance Agency	Watertown
Beacon Wax Company	Cambridge
Beane & Fine Law Firm	Cambridge
Better Homes Club Plan	Cambridge
Boston, City of	
Department of Mental Health	Boston
Boston City Hospital	Boston
Boston Credit Bureau	Boston
Boston, First National Bank	Boston
Boston P. O. Employers Credit Union	Boston
Brooks Hospital	Brookline
Brown-Wales Company	Cambridge
Budd Optical Company	Boston
Builders Specialty Hardware Co.	Somerville
California Stuceo Company	Cambridge
Cambridge Federal Savings	Cambridge
Cambridge Gas & Light Company	Cambridge
Canavan and Canavan	Boston
Carney Hospital	South Boston
Central Scientific Company	Cambridge
Chilton Greetings Company	Boston
Cobb, Reynolds, Inc.	Boston
Combustion Eng. Supr. Inc.	Boston
Crotty Bros., Inc.	Cambridge
Dewey & Almy Chemical Co.	Cambridge
Diane's Beauty Salon	Cambridge
Division of Employment Security	Boston

FIRMS EMPLOYING FEMALE RESPONDENTS IN FIRST POSITIONS
CONTINUED

Company	Location
Dix Lumber Company	Cambridge
Downs, Edgar T.	Boston
Eastern Company, The	Cambridge
Employers Liability Insurance Co.	Boston
First National Stores	Somerville
General Adjustment Bureau	Boston
Gillette Safety Razor Company	Cambridge
Glidden Paint Company	Cambridge
Gorin's	Cambridge
Grant, W. T. Stores	Medford
Grover Cronin	Waltham
Hammitt, J. L. Co.	Cambridge
Hardware Mutual Insurance Company	Boston
Harris, H. E. & Co.	Boston
Harvard Cooperative Society	Cambridge
Harvard School of Public Health	Boston
Harvard Trust Company	Cambridge
Harvard University	Cambridge
Hastings, A. W. & Co.	Somerville
Hollywood Cleaners	Arlington
Hotel Commander	Cambridge
Hurley, Robert A. & Co., Inc.	Boston
John Hancock Insurance Co.	Boston
Jones Products Company	Cambridge
Jordan Marsh Company	Boston
Keystone Readers Service	Boston
LeBaron, R. W., Inc.	Arlington
Liberty Mutual Insurance Company	Boston
Linen Thread Company	Boston
Loring Studios	Boston
M. I. T. Research Department	Cambridge
Malden Electric Company	Malden
Massachusetts Bonding & Insurance Co.	Boston
Massachusetts Hardware Distributors	Boston
Massachusetts Hospital Service	Boston

FIRMS EMPLOYING FEMALE RESPONDENTS IN FIRST POSITIONS
CONTINUED

Company	Location
Massachusetts Memorial Hospital	Boston
Merchants National Bank	Boston
Metropolitan Coal Company	Boston
Metropolitan Life Insurance Company	Boston
Metropolitan Life Insurance Company	Cambridge
Metropolitan Theatre	Boston
Monarch Life Insurance Company	Boston
Mount Auburn Hospital	Cambridge
Mutual Life Insurance Company	Cambridge
New England Mutual Insurance Co.	Boston
New England Telephone & Telegraph Co.	Cambridge
North Cambridge Cooperative Bank	Cambridge
Otis Air Force Base	Falmouth
Parker Personnel Service	Boston
Payne, F. S. Co.	Cambridge
Polaroid Corporation	Cambridge
Publishers' Book Bindery	Cambridge
Radcliffe College	Cambridge
Raymond's, Inc.	Boston
Raytheon Manufacturing Co.	Newton
Registry of Motor Vehicles	Boston
Rexall Drug Company	Boston
Rogers, A. L. Co.	Somerville
Rotary Club of Boston	Boston
St. Elizabeth's Hospital	Brighton
St. Johnsbury Trucking Co.	Cambridge
Sanborn Company	Cambridge
Scientific Specialties Co.	Brighton
Sears, Roebuck Co.	Boston
Signet Club Plan	Cambridge
Singer, Doctor	Cambridge
Smith Patterson Company	Boston
State House	Boston
State Street Trust Co.	Boston
Superior Laundry	Somerville

FIRMS EMPLOYING FEMALE RESPONDENTS IN FIRST POSITIONS
CONTINUED

Company	Location
Thomas & Betts Co., The	Boston
Travelers Insurance Company	Boston
Ullian, H. B. Insurance Agency	Boston
Ultrasonic Corporation	Cambridge
United Metal Products	Roxbury
United Mutual Insurance Company	Boston
United States Government Department of Justice	Boston
United States Trust Company	Boston
University Motor Sales	Cambridge
Wahn Distributors	Boston
Warner, Stackpole, Stenson, & Bradley	Boston
Wasserman & Salter, Attorneys	Boston
White Electric Company	Boston

FIRMS EMPLOYING MALE RESPONDENTS AT THE TIME OF THE STUDY

Company	Location
Algonquin Gas Transmission Company	Boston
Boston, City of Division of Civil Service	Boston
Boston University	Boston
Craftsman Insurance Company	Boston
Eastern Airlines	Boston
Elm Farm	Somerville
John Hancock Insurance Company	Boston
Harvard Cooperative Society	Cambridge
Harvard University	Cambridge
Hyde Machine Company	Boston
Kennedy, Inc.	Boston
Massachusetts General Hospital	Boston
Mullane, Thomas & Son	Cambridge
NEGEA Service	Cambridge
Old Glory Chemical Company	Everett
Royal Furniture Company	Somerville
Voep's Construction Company	Dorchester
Western Electric Company	Watertown
Zahka Bros.	Cambridge

FIRMS EMPLOYING FEMALE RESPONDENTS AT THE TIME OF THE STUDY

Company	Location
A & P Food Company	Boston
Air Force Research Center	Boston
Allied Building Credits, Inc.	Boston
Allis-Chalmers Mfg. Co.	Boston
American Machine & Foundry Company	Boston
American Mutual Insurance Company	Boston
Angier Products	Cambridge
Associated Transportation Co.	Cambridge
Autographic Register Co.	Boston
B. B. Chemical Company	Cambridge
Badger Manufacturing Company	Cambridge
Beacon Wax Company	Cambridge
Bethlehem Steel Company	Cambridge
Better Homes Club Plan	Cambridge
Boston City Hospital	Boston
Boston, City of	
Department of Mental Health	Boston
Department of Public Works	Boston
Boston, First National Bank	Boston
Boston Five Cents Savings Bank	Boston
Boston P. O. Employees Credit Union	Boston
Boston Safe Deposit and Trust Co.	Boston
Boston University Research	Boston
Brockway Smith Corporation	Charlestown
Brown Durrell Co.	Cambridge
Budd Optical Company	Boston
California Stucco Co.	Cambridge
Cambridge Electric Light Company	Cambridge
Cambridge Federal Savings Bank	Cambridge
Cambridge Gas & Light Company	Cambridge
Cambridge Trust Company	Cambridge
Central Scientific Company	Cambridge
Chilton Greetings Company	Boston
Cobb, Reynolds & Company	Boston
Combustion Engineer Supr., Inc.	Boston
Dewey & Almy Chemical Company	Cambridge

FIRMS EMPLOYING FEMALE RESPONDENTS AT THE TIME OF THE STUDY
CONTINUED

Company	Location
Diane's Beauty Salon	Cambridge
Dix Lumber Company	Cambridge
Downs, Edgar T.	Boston
Eastern Company, The	Cambridge
Employers Liability Insurance Co.	Boston
Family Loan Corporation	Boston
French Shriner Company	Cambridge
Gair, Robert Company	Cambridge
General Adjustment Bureau	Boston
General Latex and Chemical Co.	Cambridge
Gillette Safety Razor Co.	Boston
Glidden Paint Company	Cambridge
Gorin's	Cambridge
Grenada Wine Company	Cambridge
Harvard Cooperative Society	Cambridge
Hammett, J. L. & Co.	Cambridge
Hardware Mutual Insurance Co.	Boston
Harvard Trust Company	Boston
Harvard University Press	Cambridge
Houghton, Mifflin Co.	Cambridge
Hurley, Robert A. & Co., Inc.	Boston
Ionics Insurance Company	Cambridge
John Hancock Insurance Company	Boston
Jordan Marsh Company	Boston
Kaler, Carney, Liffler & Co.	Boston
Keystone Readers Service	Boston
Lever Bros.	Cambridge
Little, Arthur D., Inc.	Cambridge
Little, Brown & Co.	Cambridge
Lord Electrical Co., Inc.	Boston
Malden Electric Company	Malden
Massachusetts General Hospital	Boston
Massachusetts Hardware Distributors	Boston
Massachusetts Hospital Service	Boston
Massachusetts Institute of Technology	Cambridge

FIRMS EMPLOYING FEMALE RESPONDENTS AT THE TIME OF THE STUDY
CONTINUED

Company	Location
Massachusetts Title Insurance Company	Boston
McLaughlin Law Firm	Boston
Merit Protective Service	Boston
Metropolitan Life Insurance Company	Boston
Metropolitan Life Insurance Company	Cambridge
Metropolitan Transit Authority	Boston
Monarch Life Insurance Company	Boston
Morrison Brothers	Somerville
Morgan Insurance Company	Boston
Mundet Cork Corporation	Cambridge
Mutual Life Insurance Company	Cambridge
National Research Corporation	Newton
New England Cooperative Bank	Cambridge
New England Confectionery Company	Cambridge
New England Greyhound Lines	Boston
New England Mutual Insurance Company	Boston
New England Telephone and Telegraph Co.	Boston
Newton Sash and Door Corp.	Waltham
Polaroid Corporation	Cambridge
Publishers' Book Bindery Company	Cambridge
Quincy Market	Boston
Radcliffe College	Cambridge
Raytheon Manufacturing Company	Brighton
Regals, John S. & Sons	Cambridge
Registry of Motor Vehicles	Boston
Rockford Furniture Company	Boston
Roddis Plywood & Door Company	Cambridge
Sanborn Company	Cambridge
Scientific Specialties Company	Brighton
Sears Roebuck & Co.	Boston
Shell Oil Company	Boston
Singer, Doctor	Cambridge
Somerset Savings Bank	Somerville
St. Johnsbury Trucking Company	Cambridge
State House	Boston

FIRMS EMPLOYING FEMALE RESPONDENTS AT THE TIME OF THE STUDY
CONTINUED

Company	Location
State Street Trust Company	Boston
Travelers Insurance Company	Boston
Ullian Insurance Agency, H. B.	Boston
Ultrasonic Corporation	Cambridge
Union Bay State Chemical Company	Cambridge
U. S. Engineer Corps	Boston
U. S. Government Department of Justice	Boston
Wahn Distributors	Boston
Watertown Arsenal	Watertown
White Electric Company	Boston
Woodland Dairy	Watertown