

THE UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

CIRCUMSTANCES SURROUNDING THE EMPLOYMENT OF
BEGINNING OFFICE WORKERS IN OKLAHOMA CITY

A THESIS
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements for the
degree of
DOCTOR OF EDUCATION

BY
JAMES RALPH REED
Norman, Oklahoma

1955

CIRCUMSTANCES SURROUNDING THE EMPLOYMENT OF
BEGINNING OFFICE WORKERS IN OKLAHOMA CITY

APPROVED BY

Gerald A. Porter

E. A. Hatfield

J. H. Balyas

V. G. Edmondson

Ronald B. Husman

F. J. Gaithe

THESIS COMMITTEE

To

Marjorie Watson Reed

ACKNOWLEDGMENTS

The author of this report extends his sincere appreciation to Dr. Gerald A. Porter for encouragement and insight in the development of this study. His advice and counsel as chairman of the dissertation committee have been invaluable. Appreciation is extended, also, to the other members of the committee for their suggestions and encouragement throughout the investigation.

The author is grateful to the Oklahoma City Chapter of the National Office Management Association for its sponsorship of this study. He is especially grateful for the full cooperation and assistance afforded him by the office managers who participated in the study.

In addition, grateful acknowledgment is made to administrators and business teachers of the Oklahoma City Public Schools, to employees of the Oklahoma City Office of Employment Security, and to employees of the Oklahoma State Welfare Department, who supplied information, assistance, and encouragement.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vii
 Chapter	
I. THE PROBLEM	1
Introduction.	1
Statement of Problem.	7
Delimitation.	8
Source of Data.	9
Procedure	10
II. RELATED LITERATURE.	14
Early Surveys of Office Employment, 1914-39	15
Studies of Office Employment in Oklahoma.	19
Miscellaneous Investigations.	23
III. BACKGROUND INFORMATION.	36
Trends in Secondary-School Attendance	36
Occupational Classifications and Job Descriptions Pertaining to Office Workers.	43
Locale of This Study.	48
IV. QUALIFICATIONS OF BEGINNING WORKERS IN OFFICE SERVICE OCCUPATIONS	51
Introduction.	51
Education Required of Beginning Office Service Workers.	53
Abilities and Traits Essential to Beginning Office Service Workers.	67
Summary	80

V. DUTIES OF BEGINNING OFFICE WORKERS.	83
Introduction.	83
Duties Performed by Workers in Secretarial Occupations	87
Duties Performed by Workers in General Clerical and Recordkeeping Occupations	104
Duties Performed by Workers in Miscellaneous Occupations	121
Summary	133
VI. MISCELLANEOUS FACTORS IN THE EMPLOYMENT OF BEGINNING OFFICE WORKERS.	136
Opportunities for Initial Employment in Office Service Occupations in Oklahoma City.	136
Devices and Procedures Used in the Selection of Office Service Workers.	145
Office Equipment Utilized in Oklahoma City.	149
Summary	153
VII. SUMMARY AND CONCLUSIONS	155
Summary	156
Conclusions	164
BIBLIOGRAPHY	168
APPENDIXES	
APPENDIX A	173
APPENDIX B	180
APPENDIX C	189

LIST OF TABLES

Table	Page
I. INFORMATION RELATIVE TO ENROLLMENTS IN THE SECONDARY SCHOOLS OF THE UNITED STATES	39
II. HOLDING POWER OF THE SECONDARY SCHOOLS IN OKLAHOMA CITY. .	41
III. NUMBER OF PERSONS EMPLOYED IN 18 OFFICE SERVICE JOB CLASSIFICATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY .	47
IV. COMPARATIVE INFORMATION CONCERNING THE NUMBER OF OFFICE EMPLOYEES IN OKLAHOMA CITY	50
V. MINIMUM EDUCATION REQUIRED OF BEGINNING WORKERS IN SECRETARIAL OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY	56
VI. MINIMUM EDUCATION REQUIRED OF BEGINNING WORKERS IN GENERAL CLERICAL AND RECORDKEEPING OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY	60
VII. MINIMUM EDUCATION REQUIRED OF BEGINNING WORKERS IN MISCELLANEOUS OFFICE SERVICE OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY.	64
VIII. EXTENT OF DEFICIENCIES OF BEGINNING WORKERS IN BASIC ABILITIES ESSENTIAL TO EMPLOYMENT IN OFFICE SERVICE OCCUPATIONS.	71
IX. EXTENT OF DEFICIENCIES OF BEGINNING TYPISTS IN SPECIFIC ABILITIES ESSENTIAL TO EMPLOYMENT.	74
X. EXTENT OF DEFICIENCIES OF BEGINNING STENOGRAPHERS IN SPECIFIC ABILITIES ESSENTIAL TO EMPLOYMENT	76
XI. EXTENT OF DEFICIENCIES OF BEGINNING OFFICE WORKERS IN TRAITS ESSENTIAL TO EMPLOYMENT IN OFFICE SERVICE OCCUPATIONS.	79

XII.	EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN SECRETARIAL OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY	90
XIII.	EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN GENERAL CLERICAL AND RECORDKEEPING OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY.	108
XIV.	EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN MISCELLANEOUS OFFICE OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY. . .	122
XV.	EXTENT OF DIFFICULTY IN OBTAINING BEGINNING OFFICE WORKERS IN 18 OFFICE SERVICE OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY	139
XVI.	SIGNIFICANCE OF CERTAIN PROCEDURES AND DEVICES USED IN THE SELECTION OF OFFICE SERVICE EMPLOYEES.	147
XVII.	INFORMATION CONCERNING THE USE OF SELECTED TYPES OF OFFICE MACHINES IN 228 BUSINESS ENTERPRISES IN OKLAHOMA CITY.	151

CIRCUMSTANCES SURROUNDING THE EMPLOYMENT OF
BEGINNING OFFICE WORKERS IN OKLAHOMA CITY

CHAPTER I

THE PROBLEM

Introduction

The youth of any nation constitutes its greatest natural resource. In the United States the public schools are charged with the responsibility for maintaining and developing the potentiality of this natural resource. Educators are obligated to recommend to the communities they serve sound procedures for the development of young people. Educators must continually endeavor to gain the confidence and cooperation of the citizens in the community they serve. They should attempt to earn the respect of the community by aiding laymen in marshalling information which may serve as a basis for sound judgment concerning educational problems. They must be ready to support programs for the improvement of education even in the face of opposition.

Failure of a public school to contribute constructively to the needs of the community it serves results in a breakdown of public relations and leads to misunderstandings between schoolmen and laymen. Educators refer to this condition as the development of a "gap" which

makes the understanding of common problems difficult. An obstacle is placed in the way of effective education unless the mutual understanding is regained.

One of the areas of education in which misunderstandings develop readily is education for business. Education for business is relatively new to the secondary-school curriculum, and its purpose is not yet clear in many communities. School administrators sometimes do not fully understand that education for business must continually adjust to the ever-changing needs and requirements of business enterprises. Likewise, business teachers sometimes are unaware of changes occurring in the business world. Business men, involved with their own problems, do not adequately inform teachers and administrators regarding changes which affect business education. As a result, the objectives, content, and methods of instruction in business subjects may not be in accord with actual business practices and procedures.

In certain communities business men contend that the schools are not properly preparing beginning office workers, and that tax money is being wasted. Faced with this type of criticism, the business teachers find it difficult to cooperate with the local business men. The school administrators may become concerned about the situation and even doubt whether the business education program is justified. Business education is then confronted with a very serious problem. In this connection, Forkner states that:

Business teachers who are preparing young people to enter office or store occupations are in a strategic position of public relations. They can and should assume an important role in interpreting the school to the community. Their students

reflect the school in a unique way. The business department that does not capitalize upon its opportunities is not only failing to build good will for the school but is also failing to build a curriculum that will serve the needs of the community.¹

Littlejohn² emphasizes to business men and business teachers that there is a continual need for mutual understanding and cooperative effort in the improvement of education for business. In this regard, he indicates an outcome of such cooperation when he reports that: "The recent concerted effort toward the improvement of office skills has been effective in raising school standards."³

It appears that business education can be conducted most favorably in an environment where the business teachers and the business men work together in developing the educational program. In such an environment the business teachers have many opportunities to interpret the business curriculum to the employers. With the cooperation of the business men, surveys of equipment and employment methods can be made which may result in funds being appropriated for office machines and other equipment. An active advisory council consisting of teachers of business, school administrators, and business men could meet regularly to work on various phases of the educational program. It may be assumed that teaching methods and guidance practices in business

¹Hamden L. Forkner, "Curriculum Planning in Business Education," Eighth Annual Delta Pi Epsilon Lecture, (Cincinnati: South-Western Publishing Co., April, 1950), p. 12.

²Vance T. Littlejohn, "Business Education Calls for Co-operation," Office Executive, Vol. 26, No. 6 (June, 1951), pp. 17-19.

³Ibid., p. 18.

education will be more realistic when business men and business teachers cooperate in interpreting and evaluating school practices.

One business men's group especially interested in the development of plans for cooperation between business teachers and employers is the National Office Management Association. Primarily, NOMA⁴ is an association to promote a free exchange of ideas on office management, to encourage standardization, and to initiate and effect scientific methods of office organization and management. It should be noted that:

Membership in NOMA is soundly predicated on the beliefs and interests of every member that he or she has a professional responsibility to assist established educational and other institutions to interpret the needs of commerce and industry insofar as the curriculum of study and training for a business career is concerned.⁵

When NOMA was founded in 1919 at Chicopee Falls, Massachusetts, membership was limited to 100 executives. Today, the professional association has grown to an international organization of 14,000 members in the United States, Canada, and other countries. Chapters are located in 145 major cities. For continuity of accomplishment, NOMA has a national office, located in Philadelphia, which coordinates the efforts of individual members working on problems related to research, education, personnel, conferences, publications, and public relations.

Because of its bearing on this study, an understanding of the relationship of NOMA to business education must be made clear. In 1950,

⁴Throughout the remainder of this thesis the abbreviation "NOMA" will be used whenever possible in referring to the National Office Management Association.

⁵National Office Management Association, Facts About NOMA, (Philadelphia: Eleventh Hour Service, Inc., 1950), p. 10.

the following information appeared in a publication of the United Business Education Association:

The National Office Management Association is interested in better business education. For this reason, the association began, a number of years ago, to cooperate with leading educational institutions and with governmental agencies to further the development of academic instruction in business administration and office management. At the same time, it has worked with secondary-school groups toward the improvement of curricula in that important area of education.

The educational objective of the National Office Management Association is to help bring the school, the student, and the office executive into correct focus in order that the best possible program of business education can be achieved. First-hand assistance, constructive criticism, and the helpful advice of NOMA members engaged in all phases of modern business, have been made available to help make the work of business teachers more effective and far reaching.

Each of the 112 chapters of the association has an educational committee. It is the responsibility of this committee to coordinate the efforts of NOMA members in behalf of education with the local educational program. The chairman of this committee keeps in touch with national developments through the National Educational Chairman and the Staff Director in the National Office.⁶

A series of tests known as the "National Business Entrance Tests" has been developed cooperatively by NOMA and UBEA. The tests are designed to aid in the establishment of standards for beginning office workers in various skill subjects. By means of its publications, NOMA has attempted to inform business teachers of current trends in business. Conferences, methods clinics, and study groups have likewise enabled some teachers to become informed about practices in business offices. NOMA has sponsored several surveys in various cities throughout the United States for the purpose of obtaining facts relative to

⁶T. W. Kling, "Educational Assistance Through the National Office Management Association," UBEA Forum, Vol. IV, No. 5 (February, 1950), p. 38.

job opportunities, preparation of beginning office workers, equipment that is used, salaries of workers, and so forth.

The difficulties encountered in employing beginning office workers and the rapid turnover in office employees became apparent to a number of office managers in Oklahoma City early in 1950. In discussing their employment problems, they became convinced that they needed specific information concerning the preparation of office workers. They also became aware that they did not have a relationship with business teachers that was conducive to the obtaining of the best employees. As a result, the Oklahoma City Chapter of NOMA decided to take the initiative in the promotion of better relations between business men and business teachers. In February, 1950, this chapter invited Dr. J. Chester Swanson, Chief Deputy Superintendent in Charge of Instruction in Oklahoma City, to attend its "Education Night" meeting. At that meeting Dr. Swanson presented his views concerning business education and discussed with the members of NOMA means by which the relationship between teachers and business men might be improved.

The Oklahoma City Chapter of NOMA then decided to embark upon a project designed to acquaint all persons concerned with the fundamental aspects of the employment of beginning office workers in Oklahoma City. It was at this point that NOMA sought the aid of some person who could "ramrod" such a project. The nature of the contemplated study and its scope necessitated that some one individual assume the major responsibility for it. The author was the individual who, in April, 1950, assumed that responsibility.

It soon became apparent to the author that the members of NOMA in Oklahoma City believed that there was much to be desired in the quality of the product they were receiving from the schools. On the other hand, contacts with the business teachers in Oklahoma City revealed that the teachers believed the business men were far too critical and possessed only a limited understanding of the educational problems confronting the business teachers. It was obvious that the business men, the business teachers, and the school administrators were all interested in the welfare of beginning office workers. They were, however, unaccustomed to working cooperatively on the problems involved in the preparation of office employees. The fundamental problem which developed was one of involving them individually in a joint activity which would challenge their diverse interests and abilities.

Statement of Problem

The problem of this study was to reveal information that would enable business students, business teachers, school administrators, and business men in Oklahoma City to understand better the circumstances surrounding the employment of beginning office workers.

Specifically, the problem included an extensive survey of the opinions of office managers relative to such phases of office service occupations as: (1) the opportunities available to beginning workers, (2) the basic education requirements, (3) the means by which employees are selected, (4) the standards that beginning employees must meet, (5) the duties of beginning workers, (6) the traits and abilities in

which beginning workers are deficient, and (7) the types of machines and equipment utilized.

This study was designed to enable those persons concerned with business education in Oklahoma City to bring about, over a period of time, needed improvements in the education and employment of beginning office workers.

Delimitation

The nature of the problem and possible use of the information secured in this study made it essential that the data be restricted specifically to that which could be obtained from business firms which commonly employ people who have received their education and work experience in Oklahoma City. Thus, with but one exception, the business enterprises contacted in this study were located within the boundary limits of Oklahoma City. Tinker Air Force Base, although located outside of the city, was included in this study because of the large number of residents of Oklahoma City working there.

The data in this study pertain only to business enterprises that will employ office workers without previous experience in office occupations. Actually, the study is concerned only with the circumstances surrounding the initial employment of people in the following office service occupations: stenographers, secretaries, file clerks, general clerks, messenger-mail clerks, typists, accounting clerks, payroll clerks, transcribing machine operators, calculating machine operators, tabulating machine operators, key-punch machine operators, and telephone operators.

This study does not constitute an attempt to evaluate the effectiveness of instruction in business subjects in the public schools of Oklahoma City.

Source of Data

The data for this study are based upon information obtained by means of the questionnaire technique. The questionnaire (see Appendix A) was completed by the office managers in 323 selected business firms in Oklahoma City and by the Director of Personnel at Tinker Air Force Base.

Because the questionnaires were actually handed to the office managers, and in most cases returned in the same manner, all of the questionnaires that were distributed were eventually returned. Two hundred and thirty-three, or 71.9 per cent of the 324 questionnaires distributed, contained information pertaining specifically to this study. Ninety-one questionnaires were not usable because large portions of the data in them were not applicable. The 233 firms, representing 54 different kinds of business enterprises, may be listed under nine general classifications as follows:

<u>Type of Business</u>	<u>Number of Enterprises</u>	<u>Per Cent of 233 Enterprises</u>
Retail Trade	50	21.46
Finance, Insurance, and Real Estate.	42	18.03
Wholesale Trade.	38	16.31
Service Industries	31	13.31
Manufacturing.	28	12.01
Public Utilities	19	8.15
Mining	13	5.58
Government-State and Federal	7	3.00
Contract Construction.	5	2.15
	<hr/>	<hr/>
Totals	233	100.00

The data obtained in the 233 questionnaires pertain to the conditions in office service occupations in which 8,546 workers were employed.

Procedure

Because of the nature of this study and the time factor, a number of steps in the procedure were carried on simultaneously. Specific phases of the study, however, are readily discernible.

The first step in this investigation involved extensive study of office occupations and the manner in which the questionnaire technique might be applied in making a survey of office occupations in Oklahoma City. Numerous similar or related studies were obtained and examined carefully for ideas that might be helpful in conducting this study.

The second step involved the preparation of the questionnaire. A basic outline of the information to be sought was prepared by the author. The specific inquiries in the questionnaire were determined in joint meetings with the Executive Board of the Oklahoma City Chapter of NOMA, the Education Committee of NOMA, and representatives of the Oklahoma City Public Schools.

The format of the questionnaire was established by the Chairman of the Education Committee of the Oklahoma City Chapter of NOMA, a business executive experienced in form design, and the author. The individual questions were coded so that the answers could be punched into Hollerith cards and tabulated by means of International Business

Machines. Job classifications developed by NOMA were used to facilitate interpretation of the questionnaire by office managers.

Before the questionnaire was put in final form, it was examined and approved by the business teachers of Oklahoma City, by the Oklahoma City Chapter of NOMA, and by the research and standards division of the National Office of NOMA in Philadelphia, Pennsylvania. A trial form of the questionnaire was also completed in detail by the office managers in three large business firms. Minor changes were then made, and the questionnaire was multilithed by students at Capitol Hill Senior High School in Oklahoma City.

The third step involved the selection of the business enterprises to be included in this study. Lack of exact information concerning the distribution and number of office employees in Oklahoma City made the selection of enterprises difficult. A limited amount of specific data relative to the employment of office workers was obtained from the Field Service of the United States Department of Commerce and from the Oklahoma Employment Security Commission. With the cooperation of individuals in the Field Service Office and the Employment Security Commission it was possible to begin the process of selecting enterprises that might be involved in the study. From information concerning 2,198 business firms a list of 800 businesses was compiled. These businesses were those which were known to have employed office workers without previous work experience.

A committee of business teachers and business managers was formed to complete the process of selecting the business firms to be

included in the study. The members of this committee were well acquainted with the various businesses in Oklahoma City and, in general, knew which firms employed workers in the office service occupations with which this study is concerned. When the committee completed its task, the list of businesses from whom information would be sought included 324 names and approximately 50 different types of business enterprises.

The fourth step in the procedure for this study was concerned with the gathering of the data. In this connection, newspaper publicity was given to the study in order to notify business men that they might expect inquiries concerning the employment of beginning office workers. The cooperation of business men in Oklahoma City in conducting this study was also solicited by means of contacts with service groups, such as the Chamber of Commerce, the Personnel Management Association, Conoma, and Sertoma.⁷ In September, 1950, 324 questionnaires were distributed by members of NOMA and by other business leaders who had become interested in the project. The questionnaires were collected, for the most part, by those persons who distributed them. When accelerated business conditions made it impossible for some of the office managers to collect the questionnaires they had distributed, business teachers in Oklahoma City came to their aid. It should be noted that it was necessary for the author to contact some of the

⁷Sertoma is an international organization of civic, professional, and business leaders of their communities. Conoma is a local chapter of the International Toastmasters' Club. The Conoma Chapter is composed primarily of members of NOMA and Sertoma.

office managers who completed questionnaires in order to obtain complete information concerning certain questions which were overlooked or improperly answered.

The fifth step involved the tabulation of the data obtained by means of the questionnaires. The information contained in the 233 usable questionnaires was punched into Hollerith cards and tabulated on International Business Machines.

The sixth step involved the analysis and interpretation of the basic data. It was at this point that the tabulations were made available to the Oklahoma City Chapter of NOMA. Members of that organization prepared and published 1,000 copies of a 32-page bulletin based upon the data obtained. This bulletin was sent to all business firms which participated in the study, to the business teachers of Oklahoma City, and to other chapters of NOMA.

The last step involved summarization of the data and the preparation of this written report. The succeeding chapters deal with specific phases of the problem, such as qualifications of beginning office service workers; traits and abilities demanded of them; the duties which they perform; and the procedures by which they are selected.

CHAPTER II

RELATED LITERATURE

An extensive examination of the bibliographical entries in indexes to the literature in the field of business education reveals that numerous studies have been made in efforts to improve the preparation of beginning office workers. The nature and scope of these studies have varied widely, as have the methods by which the data were obtained.

It is reasonable to assume that careful study of the duties performed by office service workers and the qualifications demanded by employers should tend to indicate the appropriate pattern for instruction in business subjects. Relatively few studies, however, have been conducted in which efforts were made to determine appropriate content for business subjects through analysis of the duties performed by office workers. It is true that several informal studies partially directed toward this purpose have gained some recognition. To date there has been no formal research relative to the circumstances surrounding the education and employment of beginning office workers undertaken jointly by business men and educators. Studies have been undertaken independently but with no coordinated consideration of the information gained.

Early Surveys of Office Employment, 1914-39

There were nine significant surveys pertaining to office service occupations conducted prior to 1940. Two of these surveys were conducted by groups of business men; seven were made by individual business teachers or groups of teachers. While information was sought in some of these studies from business men as well as business teachers, there is little evidence that the findings were analyzed cooperatively or that joint efforts were made to put recommendations into effect in the school curriculum.

Copies of some of the reports of the earlier surveys related to this investigation were not available to the author. The discussion of these reports is based, therefore, upon information obtained from a secondary source, Monograph 58, written by Walters.¹

The earliest survey related to this investigation was conducted in Boston in 1914.² The chamber of commerce in Boston succeeded in compiling vocational histories of 1,165 office employees. Among other things, the study revealed that the employees believed that five high school subjects were of primary importance to them: penmanship, arithmetic, bookkeeping, typewriting, and shorthand.

Another chamber of commerce survey was conducted in Rochester in 1915.³ The survey was undertaken in order to bring about better

¹R. G. Walters, "The Community Survey," Monograph 58, (Cincinnati: South-Western Publishing Co., December, 1942).

²Chamber of Commerce, Report of Committee on Commercial Education, (Boston, Massachusetts: Boston Chamber of Commerce, 1914).

³Chamber of Commerce, Survey of Needs in Commercial Education, (Rochester, New York: Rochester Chamber of Commerce, 1915).

understanding of the mutual problems of business teachers and business men. The study was made of 1,303 business workers who were employed in 21 different kinds of positions. Some of the deficiencies of these office workers in arithmetic, English, spelling, and penmanship are similar to deficiencies found in more recent studies. The Rochester Chamber of Commerce recommended that a committee be appointed to consider the matter of part-time employment for students in business subjects and prepare a report regarding the practicability of such a plan.

In 1924, Charters and Whitley⁴ made a significant study for the purpose of discovering the traits of secretaries and the duties performed by them. In interviews with 125 secretaries data were compiled relative to 871 duties being performed by the secretaries. By means of a questionnaire check-list another group of 715 secretaries reported the frequency with which they performed each of the 871 duties. The study also indicated the frequency ranking of 45 vocational traits essential in the performance of secretarial work.

The first important study regarding business education to be made by public school teachers was conducted by the Commercial Curriculum Committee⁵ of the high school faculty in New Castle, Pennsylvania, in 1929. Information was obtained from high school graduates and

⁴W. W. Charters and Isadore B. Whitley, Analysis of Secretarial Duties and Traits (Baltimore, Maryland: Williams & Wilkins Company, 1924).

⁵"A Study in Adjusting the High School Commercial Curriculum to the Needs of the Community," A Report of the Commercial Curriculum Committee, New Castle Public Schools, New Castle, Pennsylvania, 1929 (Mimeographed).

employers of the graduates. Graduates were asked questions pertaining to the value of subjects they took while in school. Business men were asked to give their opinions concerning the value of business subjects to their employees. In the employers' opinions, English, business arithmetic, and spelling were the three most necessary subjects for business workers. On the basis of various types of information revealed by the survey, the Commercial Curriculum Committee recommended certain revisions of the New Castle High School business curriculum and the purchase of considerable additional office equipment.

A survey of graduates of Central High School, Sioux City, Iowa, was made by Traxler⁶ in 1930. The study attempted to determine how well graduates were able to use, without additional training, the business skills learned while in high school. There were 1,046 graduates and 50 business firms involved in the survey. Some of the recommendations made as a result of the study were: that more bookkeeping should be taught to prospective secretaries, that shorthand students should complete four semesters of the subject, and that added emphasis should be given to the use of office machines.

In 1933, Kerr⁷ made a study to determine the duties of office workers in Terre Haute, Indiana. The duties of the office workers were analyzed in an attempt to select the specific business skills in which instruction should be offered in the secondary schools of Terre Haute.

⁶Bina Mae Traxler, "A Follow-up Study of Commercial Graduates," (Unpublished Master's thesis, Northwestern University, Evanston, 1930).

⁷Mabel E. Kerr, "A Study of the Duties of Office Workers in Terre Haute, Indiana," (Unpublished Master's thesis, Indiana State Teachers College, Terre Haute, 1933).

Time charts covering the period of a week were filled in by 107 office workers in 57 offices in Terre Haute. The information was tabulated and presented in various tables and charts with only a limited amount of interpretation.

A survey was organized and conducted by the Co-ordination and Placement Staff of Merritt Business School,⁸ a unit of the Oakland Public Schools, in 1935. It took one calendar year to complete this study. The survey included 186 firms, embracing 114 kinds of businesses. The recommendations resulting from this survey emphasize that the offerings in a private business school should be broad and varied rather than mere preparation for a specific job.

An occupational survey of high school graduates was made in Charleston, West Virginia, in 1939.⁹ Questionnaires were mailed to 550 businesses employing 10,113 persons in business, industrial, and professional occupations. The survey attempted to find out what secondary school subjects the employers believed to be most valuable to their workers. The employers indicated that arithmetic, English grammar and composition, and business subjects were most important. The specific business subjects were not listed.

In 1939, Robinson¹⁰ made a study to determine the dictation methods used in the business offices of Decatur, Illinois. Interviews

⁸Walters, op. cit., p. 22.

⁹Ibid., p. 23.

¹⁰Stanley C. Robinson, "A Survey of the Status of Dictation Skills in a Business Community," The Balance Sheet, Vol. 22, No. 3 (November, 1940), pp. 114-115.

were conducted with the representatives of 344 businesses employing 545 stenographers. Robinson compiled a comprehensive list of findings relative to dictation methods. From the suggestions of business executives and experienced stenographers he developed 11 recommendations for the effective preparation of stenographers.

Studies of Office Employment in Oklahoma

Three studies were made in 1941 by Holcomb,¹¹ McGill,¹² and Morgan¹³ to accomplish a business occupational survey of Stillwater, Oklahoma. The data for these studies were obtained by means of interviews with representatives of 396 business enterprises. The three studies were conducted in a similar manner and revealed information concerning educational background, occupational history, employment status, and job opportunities for office workers in Stillwater. The data included in this survey pertained to managerial, recordkeeping, secretarial, clerical, and selling occupations. Each of these three studies called attention to the need for improving guidance programs affecting prospective office workers.

¹¹Kleimen Levi Holcomb, "A Business Occupational Survey of Stillwater, Oklahoma," (Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941).

¹²Esby Clifton McGill, "A Business Occupational Survey of Stillwater, Oklahoma," (Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941).

¹³Jo Morgan, "A Business Occupational Survey of Stillwater, Oklahoma," (Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941).

A study of business occupational opportunities in Ponca City was made by Silverthorn¹⁴ in 1941. Data were obtained from 192 businesses by means of questionnaires distributed and later collected by students of Ponca City High School. The information that was accumulated concerned such things as the job opportunities available to business graduates, the extent to which work experience was demanded by employers of office and sales workers, and the importance of training in the use of office machines. The findings of this study indicated that students should be discouraged from attempting to terminate their formal education before reaching 18 years of age. Silverthorn recommended that selling be taught to more business students and that a cooperative office practice program be established for senior students. He recommended also that all business students be taught how to operate typewriters, adding machines, and calculators.

In 1947, Clevenger¹⁵ made a study of employee selection practices in 40 business firms located both inside and outside the state of Oklahoma. He based his study on 20 questions asked in interviews with office managers and personnel directors in firms which hired a minimum of ten office employees. The opinions of the managers were sought in regard to letters of application, letters of recommendation, employment interviews, employment testing, physical examinations for

¹⁴James Edwin Silverthorn, "Business Occupational Opportunity Survey," (Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941).

¹⁵Earl Clevenger, "Employee Selection Practices, 1947," (Unpublished Ed. D. dissertation, University of Oklahoma, Norman, 1947).

employment, and other factors in the selection of office personnel. Some of Clevenger's findings regarding employee selection may be summarized as follows:

1. Little use is made either of the letter of application or of the photograph as selection devices.
2. The personal interview is the most widely used and most highly recommended of all the selection procedures.
3. There is a tendency away from letters of reference and recommendation.
4. Applicants for office positions should expect to take objectively scored employment examinations as well as examinations relative to the business skills.
5. Increasing numbers of businesses are requiring pre-employment physical examinations.

By means of the interview technique, Parker¹⁶ made a study of office employment opportunities in 75 business firms located in McAlester in 1947. Parker found that, in general, in McAlester: graduation from high school is the minimum educational requirement for office employment, businesses do not provide on-the-job training, and business men believe that beginning workers are deficient in the three "R's".

In 1948, Cape¹⁷ made a survey of 129 business firms in Bristow. Her study involved the distributive and office occupations engaged in by part-time and full-time employees. Information received from the survey revealed the extent to which available distributive and office job opportunities in Bristow matched the educational preparation

¹⁶Bernice B. Parker, "A Study of Office Employment Opportunities in the City of McAlester, Oklahoma, During the Year 1947," (Unpublished Master's thesis, University of Oklahoma, Norman, 1948).

¹⁷Billie Taylor Cape, "An Occupational Opportunity Survey of Bristow, Oklahoma," (Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1948).

provided for high school and junior college graduates. Some of the recommendations made by Cape are:

1. At least one year of typewriting should be included in the bookkeeping curriculum.
2. One year of bookkeeping should be included in the stenographic curriculum.
3. Office practice should be added to the business program.
4. More training should be offered in both the high school and junior college in Bristow in the selling and clerical fields.
5. Periodic occupational surveys should be made as a basis for revising the vocational curricula.
6. Cooperative part-time work experience should be made a part of the vocational curricula.¹⁸

Steinle made a study of the business occupational opportunities in Seminole, Oklahoma, in 1948.¹⁹ Selected students in the secretarial training and distributive education classes assisted in gathering information from 136 business firms. The purpose of the study was to provide data on which to base revision of vocational business education in the high school and junior college in Seminole. Steinle came to the conclusion that greater emphasis should be given to preparing students for selling occupations. He also indicated that because a large number of employers require experience of employees, an effort should be made in Seminole to provide more part-time employment opportunities for business students.

¹⁸Ibid., pp. 65-66.

¹⁹Sam Steinle, "Business Occupational Opportunity Survey of Seminole, Oklahoma," (Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1948).

Lauderdale²⁰ made a study in 1951 to obtain information concerning the levels of skills of specialized clerical employees in the petroleum industry. Eighty-one clerical employees in 11 oil companies located in Oklahoma, Texas, and Colorado were interviewed, their specialized job activities were observed, and pertinent information was recorded. Some of Lauderdale's findings relate directly to secondary school and in-service training programs for the development of clerical skills. Her most significant conclusions may be stated as follows:

1. Both academic and in-service training programs should provide instruction in clerical courses which will develop manual, mental, and social skills to levels which will enable individuals to maintain satisfactory production rates in the performance of specific primary duties.
2. Clerical training program should include instruction in the related duties which accompany the primary duties performed by clerical employees.

Miscellaneous Investigations

In 1941, Finkelhor²¹ made a study in Pittsburgh to determine the occupational adjustments of beginning women workers. Information was received from 115 employers in terms of the records of experience of 130 beginning female office workers. The 130 workers involved in this study had received their preparation for office positions at

²⁰Frances Lauderdale, "The Levels of Skills of Specialized Clerical Employees," (Unpublished Ed. D. dissertation, University of Oklahoma, Norman, 1951).

²¹Dorothy C. Finkelhor, "Occupational Adjustments of Beginning Office Workers," (Unpublished Ph. D. dissertation, University of Pittsburgh, Pittsburgh, Pennsylvania, 1941).

Business Training College. Three recommendations made by Finkelhor are related to this study:

1. Schools preparing workers for office positions should include instruction to enable applicants to make a favorable impression in an interview.
2. Students should be instructed regarding the different methods used by employers in conducting interviews.
3. Preparation for an office position should include programs of testing similar to those used in business so that students may be prepared to meet employment testing situations adequately.

In 1944, the Toronto (Canada) Chapter of NOMA²² formed a joint committee of business men and business teachers to study various phases of the business education programs in the local high schools. The 31-man committee assembled only a limited amount of statistical data. It appears that the published report was based primarily on opinions of the members of the committee. The conclusions and recommendations in this study relate only to the circumstances surrounding business education in Toronto during World War II.

Hudzietz²³ made an occupational survey of 48 representative business offices in the Joliet, Illinois, employment area in 1946. Both questionnaire and interview techniques were utilized in obtaining the data for her study. The survey was used as a basis for evaluating the curriculum of the Joliet Township High School. Hudzietz found that in the opinions of business men:

²²National Office Management Association, Education for Business, (Toronto, Canada: Toronto Chapter of the National Office Management Association, 1944).

²³Dorthe Geraldine Hudzietz, "An Occupational Study of the Joliet Employment Area Based upon 48 Representative Firms," (Unpublished Master's thesis, Northwestern University, Evanston, 1946).

1. The primary personality traits desired in beginning office workers are: accuracy, intelligence, neatness, dependability, loyalty, and cooperation.
2. The primary abilities and skills which should be developed in school are: logical thinking, mental alertness, computation, spelling, English usage, and penmanship.
3. The factors of most importance in selecting an office employee are: personality, appearance, scholastic record, and part-time work experience.
4. The factors which cause the majority of failures in office work are: lack of skill, lack of interest, personality faults, and off-the-job habits.

It is interesting to note that Hudzietz attempted to gain information from the business men relative to the degree of business skills they required of office workers. The incomplete replies which she received indicated that the business men either had no standards for business skills or did not know how to state the standards which prevailed.

The Education Committee of the Seattle Chapter of NOMA,²⁴ in cooperation with the Seattle Public Schools and the University of Washington, organized a survey of the Seattle business offices in 1946. A total of 161 enterprises was included in the survey. Information accumulated in the survey enabled the Education Committee to make the following recommendations which are pertinent to this investigation:

1. An immediate expenditure of \$111,250 should be made for the modernization of equipment in the Seattle high schools and Edison Vocational School.
2. Those who are preparing the revised curriculum for the Seattle schools should include among the requirements for all students instruction in financial planning, recordkeeping, functions and procedures of business institutions, and those aspects of law which the citizen must know for self-protection.

²⁴National Office Management Association, Business Education--The Door to the New Frontier, (Seattle, Washington: Seattle Chapter of the National Office Management Association, 1946).

3. Seattle high schools should begin a cooperative educational plan with business offices, similar to the plan now being followed in retail selling, to provide work experience for pupils before they take full-time clerical positions.
4. Certificates of proficiency should be given to students of the commercial course who attain the standards of skill and knowledge for a specific position as agreed upon by the National Office Management Association and the high schools.
5. A closer cooperation and collaboration should be brought about between educators and business organizations.
6. A full-time supervisor and curriculum director of business education should be selected for the Seattle high schools.²⁵

In 1947, Martin²⁶ made a study to ascertain information concerning the requirements met by office workers in the city of Corvallis, Oregon, as indicated by the business men who employed the workers. The interview technique was used in collecting data in the form of opinions as well as factual answers to questions. Selected findings from Martin's study reveal that in the opinion of business men:

1. A high school education is sufficient for office employment in the majority of businesses.
2. With the exception of typewriting, skill in the use of office machines may be acquired on the job.
3. Accuracy in typewriting is more important than speed.
4. More emphasis in school should be placed upon such fundamentals as: English, spelling, punctuation, and arithmetic.
5. Prospective business workers should be aided in developing of desirable business attitudes.

A joint study was made in 1947 by the Commercial Education Study Committee of the Pittsburgh Public Schools and the Pittsburgh

²⁵Ibid., p. 9.

²⁶Alfreda Bernetta Martin, "Desirable Skills and Traits of Office Workers as Determined by Corvallis Businessmen," (Unpublished Master's thesis, Oregon State College, Corvallis, 1947).

Chapter of NOMA.²⁷ Information about office duties and job classification was obtained from employees; recommendations for additional training were secured from employers. The questionnaire technique was utilized with 1,668 employee returns from 33 business firms and 58 employer returns from 40 business firms. Four of the recommendations for the improvement of secondary-school business education made as a result of this study are:

1. Cooperative training should be provided to increase the effectiveness of the high school business program.
2. Plans should be prepared to use regular classroom situations in the development of personality traits and business attitudes.
3. A booklet should be developed for use of counselors, homeroom teachers, and pupils in which the various business subjects are described in terms of content, objectives, and values vocationally or for general education.
4. General use machines such as adding machines, duplicating, check writing, stapling, postal scale, various kinds of typewriters, and telephones should be made available for all courses in which their need is indicated, while specialized office machines training should be given in separate courses.²⁸

In 1949, Gibbons²⁹ made a study to determine what business managers believed to be the factors which make for success in various types of office positions. She also accumulated data in the form of descriptions of instances in which employees exhibited unusual

²⁷Board of Public Education, Pittsburgh, Pennsylvania, Survey of Office Duties and Employer Recommendations for Improved High School Training, Curriculum Study and Educational Research Bulletin, Vol. XXIII, No. 1 (1948).

²⁸Ibid., p. 9.

²⁹Sister Eileen Marie Gibbons, "Factors that Make for Success in Office Positions as Reported by Office Managers," (Unpublished Master's thesis, University of Nebraska, 1949).

competency or shortcomings in specific jobs. The data in this study were collected by means of 40 personal interviews with office managers. According to Gibbons, the primary factors which make for success in various office occupations are:

1. Responsibility in the position of secretary.
2. Executive ability in the position of administrative secretary.
3. Honesty in the position of cashier.
4. Neatness and order in the position of duplicating machine operator.
5. Voice in the position of telephone operator.
6. Speed in the position of typist, mail clerk, machine operator, clerical worker, stenographer, and secretary.
7. Neatness and order in the position of stenographer, typist, and accounting clerk.
8. Grooming in the position of receptionist.
9. Memory in the position of filing clerk.
10. English in the position of stenographer.
11. Initiative in the position of administrative secretary.
12. Liking to work with figures in the position of accounting clerk.
13. Knowledge of organization in the position of administrative secretary and mail clerk.
14. Cooperation in all types of office jobs.³⁰

The Yakima Valley Chapter of NOMA,³¹ in 1949, made a survey to obtain information relative to why beginning office workers were inefficient in certain phases of office work. With the approval of the Yakima Public Schools, the NOMA Education Committee prepared a comprehensive questionnaire and circulated it among 83 of Yakima's leading business firms. A total of 76, or 92 per cent, of the questionnaires, was returned. On the basis of this study a report was published including a number of specific recommendations.

³⁰Ibid., p. 84.

³¹National Office Management Association, Business and the Schools, (Yakima, Washington: Yakima Valley Chapter of the National Office Management Association, 1949).

Recommendations to the Yakima Schools:

1. Funds should be made available for the modernization of equipment in the business departments of the Senior High School and the Junior College.
2. Basic business understanding and training should be made part of the general education of all students.
3. An adequate system of guidance, job placement and follow-up should be instituted in the public schools.
4. Both the Senior High School and the Junior College should expand programs of work experience.
5. Standardized office entrance tests should be given to graduates of the High School and Junior College business departments.
6. A strong program of terminal education should be developed at the Junior College in the accounting and secretarial fields.
7. A course in office management should be instituted at the Yakima Valley Junior College.
8. All business teachers should have actual office experience and a program of joint cooperation with local business firms toward that end should be established.
9. An Advisory Committee of office managers, business educators and a vocational guidance director should be set up to advise school officials on business curriculum and equipment problems.
10. A definite sum of money should be allocated every year for the purchasing of new office equipment for the business departments of the Senior High School and the Junior College.

Recommendations to Yakima Businesses:

1. Job analyses should be made of the more common office jobs and minimum standards established for the common office skills.
2. Wherever possible, common business forms, problems, letters, reports, and so forth, should be made available to the public schools for training purposes.
3. Fullest utilization should be made of the services provided by the contemplated school employment offices.
4. Business students should be given opportunity to work in business offices as part of their regular business training. This supervised work experience should be as educative and meaningful to the trainee as possible.
5. Business teachers should be provided opportunities to gain office experience through summer or part-time jobs

and in every way given assistance in helping to interpret the training needs of beginning office workers.

6. Occupational information should be made available to the schools for guidance purposes.³²

In 1950, the National Office of NOMA³³ conducted a questionnaire survey among NOMA members located in 971 business firms in the United States and 88 firms in Canada. This survey constituted an attempt to determine the practical vocational requirements for certain beginning office jobs. Represented in the survey were companies with offices employing from 25 to over 5,000 persons. An interesting fact revealed by the data in this survey is that, as size of office increases, proficiency requirements stated for beginning jobs become lower. No explanation for this phenomenon appears in the report. On the basis of the evidence gathered concerning proficiency requirements for stenographers, file clerks, and calculating machine operators, three types of data are presented in the published report of this study: (1) proficiency standards prevailing in 1950, (2) suggested proficiency standards for 1953, and (3) suggested proficiency standards for 1960. It is interesting to note that the proficiency standards which the National Office of NOMA indicates should be attained by 1960 are approximately 50 per cent higher than those which prevailed in 1950.

Oklahoma City was selected as one of 22 cities in which surveys of occupational earnings of office clerical workers were conducted in 1950. The study was under the direction of the Bureau of Labor

³²Ibid., p. 9.

³³National Office Management Association, A Survey of Vocational Requirements for Certain Beginning Jobs in Offices, (Philadelphia, Pennsylvania: National Office Management Association, 1950).

Statistics, United States Department of Labor.³⁴ The 22 surveys were designed to provide salary data for selected office occupations on a cross-industry basis. Data were also obtained regarding supplementary benefits offered to office employees, such as vacations, holidays, sick leave, and insurance and pension plans. The information published by the Bureau of Labor Statistics relative to salaries, hours of work, and supplementary benefits to office employees in Oklahoma City is detailed and specific. It is the kind of information that is of special value to employers. It is not feasible, however, to make generalizations from the information for presentation here.

In 1951, Fann³⁵ made a study of selected businesses in North Kansas City, Kansas. The purpose of the study was to secure data which would help in the planning of an educational program which would better prepare individuals for office and sales occupations. The study also constituted an attempt to stimulate cooperation between the secondary school and the local businesses. Data secured by means of 159 questionnaires returned by business men were used in the formation of generalizations and conclusions. Fann's study indicates certain information pertinent to this study:

1. Most business firms require at least a high school education for employment in office and sales occupations.

³⁴U. S. Bureau of Labor Statistics, Salaries of Office Workers in Oklahoma City, Bulletin No. 989 (Washington: Government Printing Office, 1950).

³⁵Lois Woods Fann, "An Office and Sales Occupational Survey of Selected Businesses in North Kansas City, Missouri," (Unpublished Master's thesis, University of Colorado, 1951).

2. Business men believe that office and sales employees should have a background of understanding of the customs and terminology of business as well as specific skills.
3. Lack of specific business skill constitutes a minor cause of turnover in office and sales positions.

In 1951, Van Derveer³⁶ made a study for the purpose of developing patterns of performance for the most frequent duties of general clerical workers. In this study the most frequent duties of general clerical workers were determined to be: mailing, filing and sorting, typewriting, duplicating, adding machine operation, and non-specialized duties. Specifically, Van Derveer's study deals with the clerical operations involved in the performance of the duties of general clerical workers. The manner in which these operations were performed on the job served as a basis for the patterns of performance developed in this study. Sixty-nine patterns of operation were revealed as a result of Van Derveer's observing and recording various clerical operations performed by 713 clerical workers in 17 different business organizations in and around New York City. The following conclusions made as a result of this study are considered significant:

1. Beginning clerical duties usually are performed similarly by office workers regardless of the type or size of the business in which the worker is employed. In both the small office, with less than five clerks, and in the large office, with hundreds of clerical workers, similar routines were followed in executing the operations under observation.
2. For many clerical operations, patterns of performance can be determined through observation. As individual workers and groups of workers are observed performing the same skill, the operations, and the major steps

³⁶Elizabeth A. T. Van Derveer, "A Study of Patterns of Performance for the Most Frequent Duties of Beginning Clerical Employees," (Unpublished Ed. D. dissertation, New York University, 1951).

in the operations tend to be the same--a pattern emerges. Variations occur only in minor steps and key points. Inevitably these variations portray the individuality of the worker and in some cases may become a part of the pattern because they lead to more efficient performance. Sometimes, however, these variations may be evidence of less efficient performance.

3. The patterns of performance may be used for individual or group instruction at all age or grade levels at which training in the task is justified. Originally this document was to seek and develop for classroom use patterns of the most frequent duties of general clerical workers. It soon became apparent that many of the patterns being developed might be used efficiently at an earlier level in the high school program. . . . On the other hand, if clerical practice is delayed until the thirteenth and fourteenth years of high school, the patterns will still be valuable for original instruction or for recall.³⁷

Orem³⁸ made a business office survey of 88 firms in Portland, Oregon, in 1952. In this study questionnaires were completed by office and personnel managers and a number of interviews were held. On the basis of the information she compiled, Orem made rather extensive recommendations:

1. A description of the duties required for each type of position should be made available to vocational counselors and to prospective business employees.
2. Prospective business workers and their teachers should be informed that inaccuracy is the greatest deficiency of beginning office workers. An effort must be made to stress the importance of accuracy in all school work.
3. Prospective business workers and their teachers should be informed that a lack of initiative is considered a great detriment to an employee. A good attitude toward work is important.

³⁷Ibid., pp. 300-303.

³⁸Elizabeth Bryant Orem, "Business Office Survey of Representative Portland Firms," (Unpublished Master's thesis, Oregon State College, Corvallis, 1952).

4. Prospective clerical workers should be informed that their job will require a general understanding of business. Their business training course should provide a broad background in addition to specific skill courses.
5. Prospective typists should be informed that their job will require proofreading ability, and the ability to erase and correct copy in order to produce accurate work. These skills are more important than speed.
6. Stenographers should be informed that one of their duties will be to compose letters. They will be expected to transcribe accurately and spell correctly.
7. Prospective business workers should be informed that they will need at least a high school education in order to meet the minimum requirements of business. For certain positions as bookkeeper-accountant, cashier, and stenographer-secretary, a college education is recommended.
8. Students should be trained in the procedure of representing themselves correctly in a personal interview.
9. Schools should be informed that business men will be interested in securing information about an applicant's intelligence, personality, and character.
10. An attempt should be made to set up a cooperative work program for Portland.
11. An attempt should be made to set up a summer work program for business teachers.
12. An attempt should be made to encourage the use of the Business Entrance Tests.
13. A city supervisor of business education should be appointed to coordinate the activities of business and the schools of Portland and to arrange for the three above mentioned programs.³⁹

In 1953, the Oklahoma Employment Security Commission⁴⁰ gathered data from 217 business firms in Oklahoma City relative to the wages being paid to office clerical workers. The data in this study were similar to those obtained by the Bureau of Labor Statistics in 1951.

³⁹Ibid., pp. 127-129.

⁴⁰Oklahoma Employment Security Commission, Occupational Wage Survey, (Oklahoma City: Oklahoma State Employment Service, 1953).

A perusal of the studies related to this investigation makes it apparent that for some time business men have been concerned about the education of office workers and the circumstances surrounding their employment. Studies made prior to 1920 indicate that business men were even then interested in gaining information which might enable them to understand better the problems involved in the preparation of office workers. It was not until about 1930 that individual business teachers and school groups began to make an effort to gain similar information. Since 1930, graduate students in business education have completed numerous studies related to the preparation of office workers.

In general the studies related to this investigation have been developed largely on the basis of information gained from business men through the questionnaire and/or the interview techniques. With the exception of one or two studies, there is little evidence of joint activity on the part of business educators and business men in the conducting of investigations pertaining to the preparation of beginning office workers.

CHAPTER III

BACKGROUND INFORMATION

In a research report there is usually need for a presentation of background data or general information which will aid the reader in interpreting the various phases of the report. Such background material may permeate the entire report, or it may be consolidated in one chapter of the report.

Because certain background information essential to this study is applicable to several chapters, it is consolidated in this chapter rather than being rewritten in terms of its application in each chapter. Thus, data and general information are presented in this chapter in regard to: trends in secondary-school attendance, occupational classifications and job descriptions pertaining to office workers, and the locale of this study. The purpose of this relatively short chapter is merely to present background information which will enable the reader to grasp more readily the significance of certain basic elements in the investigation.

Trends in Secondary-School Attendance

Technical and social developments which began to appear soon after the Civil War caused great changes in philosophies of education

relative to the secondary-school program and in methods of teaching specific subjects in order to prepare youth for life in the new era. The once stable curriculum through which selected students were educated at the secondary-school level has developed into multiple curricula with much disagreement among educators and lay people concerning the subjects which should be offered and how those subjects should be taught. It seems evident that this unstable situation contributes greatly to the fact that large numbers of school-age persons are not continuing their "schooling." A recent publication of the Federal Security Agency¹ indicates that there are a variety of modern-day factors which determine whether or not a person continues his "schooling." The following statement appears in that publication.

Public opinion to the contrary notwithstanding, the secondary schools of the United States have to date fallen far short of attracting to them and holding through to graduation all American youth. There are wide differences in the effectiveness of the high schools of the several States and of the individual schools within each State to attract and hold youth. A variety of factors are involved. Thus far, insufficient study has been given to this problem. There is evidence of an upsurge of interest which should in a few years result in much more information relating to it.²

Some of the factors which cause pupils to drop out of high school are further suggested as follows:

The question of why pupils drop out of high school and when involves a wide variety of causes and forces. A few of these are: Distances from a suitable high school, the unavailability of instructional programs sufficiently differentiated

¹Walter H. Gaumnitz and Ellsworth Tompkins, Holding Power and Size of High Schools, Federal Security Agency, Circular No. 322 (Washington: Government Printing Office, 1950).

²Ibid., p. iv.

to meet the specialized needs of all types of boys and girls, poor attendance records and retardation in elementary schools, the need to supplement the family income or to help out at home, the lure of jobs, the lack of teachers and other educational specialists capable of helping youth understand themselves and the community in which they live, and the failure of so many high schools to deal with problems which are meaningful to youth or related to their experiences. Many of these causes and forces are influenced by the size of the high schools, their staffs, and their facilities, and others are not. The larger schools can, and often do, offer a wider variety of subjects and other educational services; they usually have better leadership; their staffs contain a variety of specialists; they are better situated to develop broader cooperative school-work programs. . . .

All of these factors have a bearing upon the holding power of the schools. Many of those causing most of the drop-outs have in recent years been investigated. Increasingly, high schools are concerned with the immediate and real educational problems and needs of boys and girls, and of the homes and communities in which they live, rather than with academic, delayed, and nonfunctional objectives.³

Nation wide, the number of students enrolled in secondary schools varies from year to year with changes in population. The summary of enrollment data in Table I, page 39, reveals the extent to which enrollments in secondary schools in the United States have increased since 1890. Table I indicates that the number of students enrolled in secondary schools has risen from 202,963 in 1890 to 5,695,514 in 1952; an increase of more than 2,800 per cent. Approximately three times as high a percentage of persons aged 14 through 17 years are currently enrolled in grades 9 through 12 as were enrolled in 1920. Approximately two thirds of all the persons 14 through 17 years of age were in school in 1952. The number of high school graduates has multiplied approximately five times since 1920. The number of students

³Ibid., pp. 12-13.

TABLE I
 INFORMATION RELATIVE TO ENROLLMENTS IN THE SECONDARY SCHOOLS
 OF THE UNITED STATES*

Year	Per Cent of Population 14-17 Years in Last 4 Years of High School	Number of Students in Last 4 Years of High School	Number of High School Graduates	Per Cent of Students in Last 4 Years of High School Who Graduate
1890	3.8	202,963	21,882	10.7
1920	23.9	1,849,169	230,902	12.5
1930	44.3	4,129,517	591,719	14.3
1938	59.8	5,873,394	1,030,216	17.5
1946	60.9	5,362,988	1,010,077	18.8
1952	65.3	5,695,514	1,045,588	18.5

*U. S. Department of Health, Education, and Welfare, Statistics of Public Secondary Day Schools, 1951-52, Chapter 5 of the Biennial Survey of Education in the U. S. 1950-52 (Washington: Government Printing Office, 1954), pp. 6-7.

who annually are graduated from high school, as compared with the number of students enrolled in grades 9 through 12, rose from 12.5 per cent in 1920 to 18.5 per cent in 1952.

Even though the population of the United States is expected to become relatively stable in the years ahead, certain factors which are contributing to the holding power of the secondary-school program are expected to produce further substantial increases in enrollments. It is estimated that the number of secondary-school graduates in the United States will be increasing in a 15-year period from 1,265,000 in 1952-53 to 2,416,000 in 1967-68.⁴ In regard to the nation's educational level Lomax states that:

The educational attainment of our nation's age group of 25-29 years has passed the high school graduation level. The median attainment, as reported in the 1950 census, was 12.1 years of schooling as compared to 8.4 years for the age group 55-64. This increase of almost four years of education in about one generation of time is an extraordinary achievement in the mass education of the large population of this country.⁵

Data obtained from the Office of the Superintendent of the Oklahoma City Public Schools reveal the extent of the holding power of the secondary schools in that educational system. Information taken from attendance records is presented in Table II, page 41. The data reveal that 78.6 per cent of the persons who completed the eighth year of school in 1930 were graduated from high school in 1934. This indicates that the holding power of the secondary schools in Oklahoma City

⁴Paul S. Lomax, (Editorial) "Business Education and the Nation's Educational Level," The Journal of Business Education (December, 1953), p. 103.

⁵Ibid.

TABLE II

HOLDING POWER OF THE SECONDARY SCHOOLS IN OKLAHOMA CITY*

Number of Students Who Completed the Eighth Grade and Graduated from High School			Holding Power			Total High School Attendance on Last Day of School Year Indicated	
Year	Number Finishing Eighth Grade	Year	Number Finishing Twelfth Grade	Per Cent of Students Completing Eight Grades Who Also Graduate from High School	Per Cent of Students Completing Eight Grades Who Do Not Graduate from High School		
1930	2,024	1934	1,590	78.6	21.4	1933-34	7,551
1935	2,623	1939	1,936	73.8	26.2	1938-39	9,355
1940	2,683	1944	1,318	49.1	50.9	1943-44	7,605
1945	2,655	1949	1,715	64.6	35.4	1948-49	8,119
1948	2,346	1953	1,603	68.3	31.7	1952-53	8,743

*A mimeographed compilation of figures showing the number of pupils attending the last day of school for the year indicated in the schools for white students of the Oklahoma City Public Schools, District #1-89, for a period of years (1929-30 to 1952-53).

for the period from 1930 to 1934 was exceptionally good as compared with the years to follow. The percentage of drop-outs more than doubled for the group which finished the eighth grade in 1940 and was graduated from high school in 1944. Actually, the percentage of eighth graders in 1940 who were graduated from high school in 1944 was 49.1. Undoubtedly, one of the primary reasons for the large number of drop-outs between 1940 and 1944 was World War II.

Even before the end of World War II, the school administrators in Oklahoma City were planning a long-range program designed to bring about a decrease in the number of drop-outs. The school administrators and laymen, as well, believed that a possible cause of the excessive drop-outs was lack of interest on the part of students who did not aspire to go to college. The plans which were put into effect to decrease drop-outs included emphasis upon vocational education which, it was hoped, would gain the interest of many students and enable them to prepare for productive citizenship in the world of business and industry.

The steady increase in the number of students enrolling in subjects in such areas as business, agriculture, industry, and home economics has encouraged the expansion of vocational facilities in the Oklahoma City schools. Thus, additional opportunities have been provided for more students to gain preparation in these areas. The school authorities are convinced that vocational preparation accounts, at least in part, for the steady decrease in the number of drop-outs. It is significant to note in Table II, page 41, that 68.3 per cent

of the persons who completed the eighth grade in 1949 were graduated from high school in 1953. The drop-out rate had decreased to 31.7 per cent.

The evidence in this section indicates that there have been, and undoubtedly will continue to be, large numbers of students in the secondary schools of Oklahoma City and the nation as a whole. The data indicate further that students are staying in school longer, and the education of the average individual is at a point slightly above the secondary-school level. While the holding power of the schools in Oklahoma City has fluctuated greatly in the past 25 years, there is evidence now that it is at a relatively high level and may go even higher.

Occupational Classifications and Job Descriptions

Pertaining to Office Workers

In general, the task of classifying and describing jobs or occupations is one process in the total management function. The process is commonly referred to as "job analysis" and has been specifically defined by many writers, including Terry, who states:

Job analysis is the process of critically examining the component parts of a job, both separately and in relation to the whole, in order to determine all the operations and duties of each job.⁶

It is apparent that job analysis deals with facts about jobs, and what the jobs require for competent performance. Job analysis is

⁶George R. Terry, Office Management and Control (Chicago, Illinois: Richard D. Irwin, Inc., 1949), pp. 455-456.

thus a means to an end and constitutes, among other things, the basis for the determination of job classification and the writing of job descriptions.

In establishing the procedure for the completion of this investigation, it was assumed that accurate job classifications and descriptions of the common office service occupations were available. It was further assumed that the preparation for and employment of personnel in the business offices of Oklahoma City was sufficiently uniform that valid and reliable data could be obtained concerning the office service occupations. There has been revealed no evidence to indicate that either of these assumptions was incorrect.

One must recognize, however, that a certain amount of confusion does exist concerning the specific details of activities involved in various office service occupations. The field of office management is much too new for this particular phase to have been reconciled completely. Walters⁷ indicates that standardization of occupational classifications for the purpose of using them in conducting surveys is a difficult task when he says:

There is much confusion in the minds of employers and employees, and even of some business teachers, regarding the terms used to designate certain business occupations. To many people, for example, bookkeeper and accountant are synonymous, while typist, stenographer, and private secretary are often used to designate dozens of occupations ranging from a retail salesperson working in a five-and ten cent store to a highly paid, college-trained statistician. To avoid misunderstanding it is desirable, therefore, to use occupational

⁷R. G. Walters, "The Community Survey," Monograph 58, (Cincinnati: South-Western Publishing Co., December, 1942).

terms on the form or questionnaire, that are found in the Dictionary of Occupational Titles that has been prepared by the United States Employment Service.⁸

As a basis for the determination of the most satisfactory job titles and descriptions to be used in this study, an analysis was made of the current practices concerning occupational classifications and job descriptions used in various governmental agencies and private industries located in Oklahoma City and in other sections of the United States. This analysis revealed that, for the most part, each major area of government and/or industry has a somewhat different interpretation placed upon the classifications and descriptions of office occupations. Certain subsidiary branches of the government and small industries also modify occupational classifications and descriptions used by larger units of government and industry in order to have occupational classifications and descriptions which more nearly apply to their particular situations. The Dictionary of Occupational Titles is the primary source of information concerning the classification and description of office service occupations, which is used extensively by both government and business.⁹ This source of information consists of a very detailed and comprehensive compilation of the duties of workers employed by various branches of the government. The National Office Management Association has attempted for the past several years to educate and

⁸Ibid., pp. 11-12.

⁹United States Government, War Manpower Commission, United States Employment Service, Division of Occupational Analysis, Dictionary of Occupational Titles, Part IV, Entry Occupational Classification, Superintendent of Documents (Washington: Government Printing Office, 1944).

encourage its members to use a compilation of job titles and descriptions for office occupations derived from and basically the same as that of the Dictionary of Occupational Titles. Liles' comment concerning the NOMA occupational classification system is as follows:

As a part of its research program, the National Office Management Association has attempted to classify "clerical" jobs and to evaluate the duties in connection with each clerical position. The classification is applicable to any type of business organization. The authors borrowed from the Dictionary of Occupational Titles and from the Michigan Civil Service Commission's listings but modified them to bring them more closely into line with present day conditions.¹⁰

The job titles and descriptions utilized in the questionnaire for this study (see Appendix A) are those advocated by NOMA. The fact that the 233 office managers who responded to this section of the questionnaire were able to classify 7,714 of the 8,546 office workers, or 90.3 per cent, in the 18 job classifications utilized in the questionnaire indicates that the NOMA job titles and descriptions were adequate for the purpose for which they were used in this study. The 832 office employees who were not classified under the 18 job classifications used in the questionnaire consisted of workers employed as cashiers, teletype operators, claim writers, policy writers, receptionists, registrars, paymasters, and so forth. Information relative to the number of individuals involved in the various job classifications utilized in this study is revealed in Table III, page 47.

¹⁰Alton B. Parker Liles, "Some Factors in the Training of Clerical Workers," (Unpublished Ph. D. dissertation, University of Kentucky, 1947), p. 35.

TABLE III

NUMBER OF PERSONS EMPLOYED IN 18 OFFICE SERVICE JOB CLASSIFICATIONS
IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Job Titles	Number of Firms	Number of Employees	Per Cent of 8,546 Employees
Secretarial Positions:			
Typist B (Junior)*	42	965	11.2
Typist A (Senior)	73	423	5.0
Stenographer B (Junior)	82	471	5.5
Stenographer A (Senior)	146	578	6.8
Secretary-Stenographer	99	276	3.2
Private Secretary	94	207	2.4
Clerical and Recordkeeping Positions:			
General Clerk B (Junior)	52	756	8.9
General Clerk A (Senior)	98	960	11.2
File Clerk	96	274	3.2
Accounting Clerk B (Junior)	90	406	4.8
Accounting Clerk A (Senior)	121	430	5.0
Payroll Clerk	78	204	2.4
Miscellaneous Positions:			
Calculating Machine Operator	41	233	2.7
Transcribing Machine Operator	16	47	0.6
Tabulating Machine Operator	24	266	3.1
Key-Punch Machine Operator	6	158	1.9
Telephone Operator	89	888	10.4
Messenger-Mail Clerk	45	172	2.0
Others	49	832	9.7
Totals	--	8,546	100.0

*To be read as follows: Although 233 firms were surveyed, only 42 firms employed people in the Typist B classification. A total of 965 persons worked as junior typists in the 42 firms. They constituted 11.2 per cent of all persons involved in this study.

Locale of This Study

Founded in 1889, Oklahoma City has been the largest city in Oklahoma since statehood. Its population has grown from 4,151 in 1890¹¹ to 243,504 in 1950.¹²

Highly-diversified industries consisting of more than 571 manufacturing firms are located in this city. Among the major industrial activities are meat packing; grain milling; cotton processing; production of aircraft; petroleum production and processing; manufacture of oil field equipment and supplies; fabrication of steel; and the manufacture of steel products, wood and metal castings, building materials, and paper products. Oklahoma City serves as a distributing center for many agricultural products.

Oklahoma City is located near the geographic "center" of the United States. More specifically, it is located in the center of what is known as the great Southwest. It is an important center for wholesale trade serving all of Oklahoma, southern Kansas, western Arkansas, Texas Panhandle, and eastern New Mexico. Furthermore, Oklahoma City is located in the greatest oil-producing area in the world. Numerous major oil companies and oil service organizations have offices located in this city.

Oklahoma City is the capital of the state of Oklahoma. Many state and federal offices are located there. Geographic location,

¹¹Angie Debo, Oklahoma Foot-Loose and Fancy-Free (Norman: University of Oklahoma Press, 1949), p. 29.

¹²United States Bureau of the Census, United States Census of Population: 1950, Vol. 1, Number of Inhabitants (Washington: Government Printing Office, 1952), p. 36-18.

adequate transportation facilities, and excellent housing accommodations are some of the factors which have enabled Oklahoma City to be rated third in the nation as a convention center.

In 1954, there were 96 public schools, including four senior high schools, seven junior high schools, four junior-senior high schools, and 81 elementary schools. Also, there were 15 parochial schools, one university, and three accredited business colleges. The University of Oklahoma is located twenty miles from downtown Oklahoma City.

Table IV, page 50, reveals the extent of the growth in the number of office workers in Oklahoma City between 1930 and 1950. Although the census figures are not always presented in a consistent manner, the information in Table IV makes it apparent that the demand for office workers has greatly increased.

TABLE IV

COMPARATIVE INFORMATION CONCERNING THE NUMBER OF OFFICE EMPLOYEES
IN OKLAHOMA CITY

Title	1930*	1940#	1950‡
Attendants, and Assistants, Library	--	9	31
Attendants, Physicians and Dentists Offices	--	77	156
Bookkeepers, Accountants and Cashiers	2,928	3,056	3,640
Express Messengers and Railway Mail Clerks	--	40	42
Messenger and Office Boys and Girls	130	84	149
Office Machine Operators	93	235	676
Shipping and Receiving Clerks	344	367	726
Stenographers, Typists and Secretaries	2,953	5,391	6,071
Telegraph Messengers	--	62	29
Telegraph Operators	--	89	61
Telephone Operators	--	467	1,067
Ticket, Station and Express Agents	--	83	122
Clerical and Kindred Workers Not Elsewhere Classified	3,831	3,589	9,156
Totals	10,279	13,549	26,941

*Fifteenth Census of the United States: 1930. Population: Occupation Statistics, IV, 1331. Washington: Government Printing Office, 1933.

#Sixteenth Census of the United States: 1940. Population: The Labor Force, III, 878. Washington: Government Printing Office, 1943.

‡Seventeenth Census of the United States: 1950. Population: Characteristics of the Population, II, 36-180. Washington: Government Printing Office, 1952.

CHAPTER IV

QUALIFICATIONS OF BEGINNING WORKERS

IN OFFICE SERVICE OCCUPATIONS

Introduction

The primary aim of business teachers in the public schools of Oklahoma City is to prepare qualified workers for office service occupations. Business men in Oklahoma City are continually confronted with the problem of securing personnel to perform office tasks in their business enterprises. It is axiomatic then that the business teachers and the business men should cooperate in the preparation and employment of office service workers. They should join forces in promoting the best possible educational and employment surroundings.

A primary reason for this study is to reveal information which may be used by educators and business men alike in solving problems connected with the preparation and employment of beginning office workers. The planning committee¹ of school administrators, business teachers, and business men which cooperated with the author in

¹The planning committee was composed of four school administrators, including the present Superintendent of Oklahoma City Public Schools; four members of the Oklahoma City Chapter of the National Office Management Association, including its president; and three business teachers.

developing the basic plan for this investigation believed that the preparation of beginning office workers should enable them to develop: (1) general fundamental abilities such as reading, computation, and oral and written English usage; (2) basic concepts and understandings of business and economics; (3) specific business skills and abilities; and (4) desirable character and personality traits. It would undoubtedly be feasible to develop a dissertation regarding each of these phases of preparation. In Oklahoma City it appeared desirable to study all of them at one time. A broad approach was thus developed rather than one which accented the specific details of the preparation of office workers.

Although it is recognized that the general education of an individual is vital to his success as an office employee, it was not feasible to seek exact information from office managers in Oklahoma City regarding such fundamentals in general education as computation, reading, and oral and written English usage. It was feasible, however, to obtain the opinions of office managers relative to the amount of general education an office worker should have in terms of "schooling." Likewise, it was feasible to obtain opinions of the office managers relative to certain basic understandings, business skills, and personal traits essential to success in specific office positions. The planning committee and the author believed that this information might reveal the relationship existing between pre-employment preparation and the duties of beginning workers in certain office positions. Generalizations could thus be developed relative to what should be included

in the preparation of beginning office workers, and how that preparation might best be accomplished.

The discussion in this chapter is concerned primarily with the pre-employment preparation of beginning office workers. Information concerning the education required of beginning office service workers is presented in terms of "schooling" required of beginning employees in 18 specific office service occupations. Data are also presented and discussed regarding the basic abilities, specific business abilities, and personal traits essential to initial office employment.

In Chapter V an analysis is made of the duties performed by beginning workers in 18 office service occupations, and an attempt is made to relate the duties performed to the qualifications required as revealed in this chapter. Chapter VI is devoted to a discussion of miscellaneous factors in the employment of beginning office workers.

Education Required of Beginning Office Service Workers

The data for this section were obtained from questionnaires (see Appendix A) completed by office managers who were supervising the work activities of 8,546 office workers employed by 233 business firms in Oklahoma City. Each of the office managers was requested to indicate the minimum amount of schooling essential for employment in office service positions under his supervision. While a few business firms employed numerous people in each of the 18 job classifications utilized in this study, other firms employed individuals in only one or two of the classifications. In general, each of the office managers reported schooling requirements for from six to fifteen of the job classifications.

The 233 office managers made a total of 2,856 responses relative to the minimum schooling required in the 18 office service occupations. The responses are summarized here:

<u>Schooling Required</u>	<u>Number of Times Indicated</u>	<u>Per Cent of 2,856 Responses</u>
High School Non-graduate	208	7.3
High School Graduate	1,908	66.8
1 Year of College	403	14.1
2 Years of College	283	9.9
4 or More Years of College	54	1.9
Total	<u>2,856</u>	<u>100.0</u>

The above tabulation indicates that the business firms of Oklahoma City expect the high schools to prepare the majority of beginning office service workers. More than two thirds of the responses made by business men relative to the educational requirements of beginning office service workers in the 18 job classifications included in this study emphasize the necessity of an individual's being graduated from high school before he seeks employment. On the other hand, 7.3 per cent of the responses indicated that certain office service positions are available for people who have not been graduated from high school. It is interesting to note that less than 2 per cent of the responses indicated that graduation from college is necessary for employment in the office service occupations. More detailed information regarding the schooling requirements of beginning office workers is discussed in the sections of this chapter which follow. Specific data relative to requirements for secretarial, clerical and recordkeeping, and miscellaneous office service occupations are presented.

Schooling Required for Secretarial Occupations

Included in the questionnaire data used in this study were 1,026 responses relative to the minimum amount of schooling required for employment in six specific secretarial occupations. The office managers in 233 business enterprises in Oklahoma City reported the extent of formal education required for employment in the following secretarial occupations: Typist B (Junior), Typist A (Senior), Stenographer B (Junior), Stenographer A (Senior), Secretary-Stenographer, and Private Secretary. In general, it is the opinion of office managers in Oklahoma City that only high school graduates should seek employment in these secretarial occupations. Detailed information concerning the distribution of the 1,026 responses regarding the schooling required for secretarial occupations is presented in Table V, page 56.

Analysis of the data in Table V reveals that a person who has not finished high school has only a limited chance of obtaining employment as a typist in Oklahoma City. Of the 164 business firms from which responses were obtained concerning the employment of junior typists, only 17 reported that individuals with less than a high school education would be employed. Approximately 85 per cent of the business enterprises reported that a high school education is an essential of employment. Of the 179 business firms from which responses were obtained concerning the employment of senior typists, only ten reported that individuals with less than a high school education would be employed. Office managers in 80 per cent of the business enterprises reported that a high school education is essential for the senior typist. Whereas,

TABLE V

MINIMUM EDUCATION REQUIRED OF BEGINNING WORKERS IN SECRETARIAL OCCUPATIONS
IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Secretarial Occupations	Total Number of Firms Reporting Schooling Requirements	Minimum Educational Requirements									
		High School Non-Graduate		High School Graduate		1 Year of College		2 Years of College		4 or More Years of College	
		Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting
Typist B (Junior)*	164	17	10.4	139	84.8	6	3.6	2	1.2	0	0.0
Typist A (Senior)	179	10	5.5	143	80.0	17	19.4	8	4.5	1	0.6
Stenographer B (Junior)	174	8	4.6	122	70.1	29	16.7	11	6.3	4	2.3
Stenographer A (Senior)	193	3	1.5	120	62.3	35	18.1	27	14.0	8	4.1
Secretary-Stenographer	171	2	1.2	84	49.1	47	27.5	33	19.3	5	2.9
Private Secretary	145	1	0.7	55	37.9	32	22.1	48	33.1	9	6.2

*To be read as follows: Of 233 business firms surveyed, 164 indicated willingness to employ beginning workers in Typist B (Junior) classification; 17 firms, or 10.4 per cent of the 164 will employ non-graduates of high school; 139, or 84.8 per cent will employ graduates of high school; etc.

26 firms of the 179 reporting indicated that it is necessary for prospective senior typists to have attended college for one or more years, only eight firms indicated that prospective junior typists should continue their education beyond high school.

Further analysis of the data in Table V reveals that a person who has not finished high school has even less chance for employment as a stenographer than as a typist. Of the 174 business enterprises from which responses were obtained concerning the employment of junior stenographers, 70.1 per cent reported that a high school education is the minimum schooling required for employment; 25.3 per cent require one or more years of college; only 4.6 per cent will employ persons who are not high school graduates. Of the 193 business firms from which responses were obtained concerning the employment of senior stenographers, 62.3 per cent reported that a high school education is the minimum schooling requirement. Approximately 36 per cent of the 193 business enterprises reported that one or more years of college is essential to employment, and, in contrast, only 1.5 per cent will employ persons who have not been graduated from high school.

The data in Table V, page 56, reveal that there is a significantly higher level of schooling required of prospective secretary-stenographers than is required of prospective typists or stenographers. Approximately 99 per cent of the 171 office managers in Oklahoma City who responded to this section of the questionnaire indicated that prospective secretary-stenographers should have attained either a high school or a post high school education. Office managers

in 49.1 per cent of the firms indicated that they would be willing to employ prospective secretary-stenographers who have attained a high school education. Only 1.2 per cent of the 171 office managers indicated that they would be willing to employ prospective secretary-stenographers who have not finished high school. It was indicated by 46.8 per cent of the office managers that a prospective secretary-stenographer should have completed one or two years of schooling beyond high school. Only 2.9 per cent of the office managers indicated that a prospective secretary-stenographer should have four or more years of college.

Office managers in Oklahoma City desire a higher level of education of a prospective private secretary than for any of the other secretarial positions included in this study. Only one of 145 office managers who responded to this section of the questionnaire indicated that he would be willing to employ a prospective private secretary who had not completed high school. Approximately 40 per cent of the office managers indicated that a high school education would be necessary for a prospective private secretary to gain initial employment in their offices. Of the 145 office managers who responded to this section of the questionnaire, 61.4 per cent indicated that employment opportunities are very good in Oklahoma City for prospective private secretaries who have completed one or more years of college. Furthermore, 6.2 per cent of the office managers indicated that prospective private secretaries should have attained four or more years of college in order to qualify for employment in their offices.

Schooling Required for General Clerical
and Recordkeeping Occupations

There were 982 responses made relative to the minimum amount of schooling required for initial employment in six specific general clerical and recordkeeping occupations as revealed in the questionnaire data received from office managers in 233 business enterprises in Oklahoma City. The office managers reported the extent of formal education essential to employment in the following general clerical and recordkeeping occupations: General Clerk B (Junior), General Clerk A (Senior), File Clerk, Accounting Clerk B (Junior), Accounting Clerk A (Senior), and Payroll Clerk. The data in Table VI, page 60, indicate that the number of business men who are willing to employ high school non-graduates for the general clerical and recordkeeping occupations is significantly greater than the number who are willing to employ high school non-graduates for the secretarial occupations. The majority of the office managers, however, indicated that prospective general and recordkeeping clerks should complete their high school education. Many of the office managers indicated that prospective general and recordkeeping clerks should acquire one or more years of college preparation.

An analysis of the data in Table VI indicates that a person who has not finished high school may secure employment in Oklahoma City as a general clerk. Approximately three fourths of the business firms, however, consider a high school education to be essential to employment in both junior and senior general clerical positions. In 23 of the

TABLE VI

MINIMUM EDUCATION REQUIRED OF BEGINNING WORKERS IN GENERAL CLERICAL AND RECORDKEEPING
OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Recordkeeping Occupations	Total Number of Firms Reporting Schooling Requirements	Minimum Educational Requirements									
		High School Non-Graduate		High School Graduate		1 Year of College		2 Years of College		4 or More Years of College	
		Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting
General Clerk B* (Junior)	165	23	13.9	130	78.8	9	5.5	1	0.6	2	1.2
General Clerk A (Senior)	184	10	5.4	141	76.6	20	10.9	10	5.4	3	1.7
File Clerk	179	32	17.9	141	78.8	2	1.1	2	1.1	2	1.1
Accounting Clerk B (Junior)	159	3	1.9	86	54.1	37	23.3	32	20.1	1	0.6
Accounting Clerk A (Senior)	126	1	0.8	61	48.4	19	15.1	44	34.9	1	0.8
Payroll Clerk	169	3	1.8	101	59.8	32	18.9	24	14.2	9	5.3

*To be read as follows: Of 233 business firms surveyed, 165 indicated willingness to employ beginning workers in General Clerk B (Junior) classification; 23 firms, or 13.9 per cent of the 165 will employ non-graduates of high school; 130, or 78.8 per cent will employ graduates of high school; etc.

business enterprises involved in this study an individual who has not been graduated from high school may obtain employment as a junior general clerk; in ten of the firms he may be employed as a senior general clerk. The business firms requiring a high school education for junior general clerk positions constitute 78.8 per cent of those involved in this study; 76.6 per cent consider a high school education as the minimum schooling required for senior general clerk positions. Twelve business enterprises consider one or more years of college essential to employment in junior general clerk positions; 33 consider college work as essential in the preparation of senior general clerks.

The data in Table VI, page 60, reveal that some office managers in Oklahoma City will employ persons in file clerk positions even though they have not finished high school. As in the case of the general clerk positions, however, approximately three fourths of the business firms require a high school education of persons seeking employment as file clerks. Of the 179 office managers who responded to the questionnaire with regard to the schooling of file clerks, 32 indicated that they would be willing to employ as file clerks persons who have not completed high school; 141 office managers desire file clerks who have finished high school; and 6 require schooling to the extent of one or more years of college.

A person must have at least finished high school in order to obtain initial employment as an accounting clerk in Oklahoma City, according to the data presented in Table VI. There were 86 office managers who reported that they require a junior accounting clerk to

complete his high school education in order to qualify for initial employment in their offices; 61 require senior accounting clerks to attain a high school education. Seventy office managers require one or more years of college as essential to employment for the junior accounting clerk position; 64 require senior accounting clerks to obtain some college preparation. There is practically no opportunity for a person seeking employment as an accounting clerk if he has not finished high school. Similarly, there appears to be little or no reason why a person should attain four or more years of college in order to obtain initial employment as an accounting clerk.

Table VI, page 60, reveals that 169 office managers require a prospective payroll clerk to have finished high school and/or one or more years of college. Approximately 60 per cent of the office managers indicated that payroll clerks are required to have completed high school before being employed in their firms. Office managers in 38.4 per cent of the firms indicated a willingness to employ prospective payroll clerks who have completed one or more years of college. Only 1.8 per cent of the office managers are willing to employ persons seeking employment as a payroll clerk who has not finished high school; and, in contrast, 5.3 per cent reported that they require four or more years of college.

Schooling Required for Miscellaneous Office Service Occupations

The data on which this investigation is based include 848 responses regarding the minimum amount of schooling required for initial employment in six miscellaneous office service occupations.

The amount of formal education required for initial employment in the miscellaneous office service occupations was reported by office managers in 233 business enterprises located in Oklahoma City. The six occupations are: Calculating Machine Operator, Transcribing Machine Operator, Tabulating Machine Operator, Key-Punch Machine Operator, Telephone Operator, and Messenger-Mail Clerk. The data concerning schooling required for these occupations are summarized in Table VII, page 64. Analysis of Table VII reveals that, in general, office managers believe that prospective office workers in the miscellaneous occupations should have completed their high school education.

The operation of office machines is included in four of the six miscellaneous office service occupations considered in this study. The 233 office managers made responses relative to the minimum amount of schooling required of beginning calculating, transcribing, tabulating, and key-punch machine operators. Whereas 13 of the responses made by the office managers indicated willingness to employ beginning office machine operators who have not finished high school, 369 responses indicated that a high school education is essential to employment. There were 99 responses which indicated that office machine operators should have completed one year of college, and 39 responses indicated that for initial employment an office machine operator should have completed two or more years of college.

More specific analysis of the data presented in Table VII reveals that 150 responses were made by the office managers relative to the employment of calculating machine operators. Five managers

TABLE VII

MINIMUM EDUCATION REQUIRED OF BEGINNING WORKERS IN MISCELLANEOUS OFFICE SERVICE OCCUPATIONS
IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Miscellaneous Service Occupations	Total Number of Firms Reporting Schooling Requirements	Minimum Educational Requirements									
		High School Non-Graduate		High School Graduate		1 Year of College		2 Years of College		4 or More Years of College	
		Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting	Number of Firms	Per Cent of Total Firms Reporting
Calculating Machine Operator*	150	5	3.3	103	68.8	29	19.3	11	7.3	2	1.3
Transcribing Machine Operator	136	2	1.5	101	74.3	25	18.4	7	5.1	1	0.7
Tabulating Machine Operator	121	3	2.5	82	67.8	27	22.3	8	6.6	1	0.8
Key-Punch Machine Operator	113	3	2.6	83	73.5	18	15.9	8	7.1	1	0.9
Telephone Operator	179	21	11.7	130	72.6	17	9.6	7	3.9	4	2.2
Messenger-Mail Clerk	149	61	41.0	86	57.7	2	1.3	0	0.0	0	0.0

*To be read as follows: Of 233 business firms surveyed, 150 indicated willingness to employ beginning workers in the Calculating Machine Operator classification; 5 firms, or 3.3 per cent of the 150 will employ non-graduates of high school; 103, or 68.8 per cent will employ graduates of high school; etc.

indicated that they were willing to employ high school non-graduates as calculating machine operators; 103 are willing to employ high school graduates; 42 indicated that one or more years of college are essential for the position.

Among the 136 responses made relative to the minimum amount of schooling required of a transcribing machine operator were two responses indicating willingness to employ persons who are not high school graduates. One hundred and thirty-six of the 233 office managers, however, believe that a high school education is essential, and 33 reported that they require one or more years of college for transcribing machine operators.

There were 121 responses made by business men relative to the amount of education desired of tabulating machine operators. Only in three firms were there indications of willingness to employ persons who have not finished high school; 82 office managers want tabulating machine operators who have finished high school; 36 indicated that a person should have completed one or more years of college in order to qualify for initial employment.

Of 113 office managers reporting, three indicated their willingness to employ a prospective key-punch operator who has not completed his high school education; 83 require completion of high school; 27 indicated that a key-punch operator should have acquired schooling to the extent of one or more years of college.

The data in Table VII, page 64, reveal that a person who has not finished high school has a relatively good chance of obtaining

initial employment as a telephone operator. Of the 179 responses made by the Oklahoma City office managers relative to the minimum amount of schooling required of prospective telephone operators, 21 indicated willingness to employ persons with less than a high school education. Office managers in 130 of the firms reported that it would be necessary for a person seeking such employment to have completed high school. Twenty-eight of the office managers indicated that schooling at the collegiate level is essential for telephone operators.

The information in Table VII makes it apparent that employment in messenger-mail clerk positions is frequently offered to individuals with less than a high school education. Of the 149 responses made by office managers, 61 indicated willingness to employ individuals for the position of messenger-mail clerk even though the applicants have not finished high school. Eighty-six of the 149 responses indicated that a high school education is necessary for initial employment. Only two responses indicated that messenger-mail clerks should have completed one year of college; none indicated a need for more than one year of college.

The data in this section relative to schooling indicate that the majority of business men in Oklahoma City who responded to the questionnaire believe that a person should have finished high school if he desires to obtain employment in any of the 18 job classifications included in this study. The evidence seems to indicate, furthermore, that a person should not only have finished high school, but in many instances he will be required to have completed one or more years of study at the college level.

Abilities and Traits Essential to Beginning
Office Service Workers

The business teacher at the secondary-school level offers instruction in both the general and the vocational phases of education. The teacher is not only involved in remedial work concerning the general education of a student but also is concerned with extending understandings, skills, and attitudes so that the student will become a well-rounded, self-sufficient individual. The business teacher may feel relatively self-sufficient in fulfilling his assignment in aiding students in acquiring certain business skills. The business teacher, however, soon discovers that coordinated action with other teachers, administrators, and laymen is necessary if a program is to be developed by means of which students may develop the character traits that are essential to success in the world of business.

Concerning the nature of character traits, Tonne states:

A person who has developed good character traits in general will, it may be assumed, have a command of those traits especially adapted to business, for commercial activity is typical of other aspects of social life. Nevertheless, there are traits that will help a person to fit more readily into the business world. This is especially true because character traits are specific. A person is never honest, loyal, or businesslike in general. He displays these characteristics in specific situations--he may be loyal under certain conditions and faithless under others. It is the duty of the commercial teacher to develop in students, as far as possible, the traits that they are likely to need in business situations.²

Relative to student needs in the area of character trait development,

Tonne indicates:

²Herbert A. Tonne, Business Education Basic Principles and Trends (New York: Gregg Publishing Co., 1939), p. 42.

The development of character requires a teaching process similar to that used in inculcating knowledge. The first step, therefore, is to discover what the student actually needs. Unless this knowledge is at a teacher's command, his work may be completely counteracted by some factor that is not considered at all.³

There have been numerous studies which indicate that certain understandings, abilities, and traits are essential for success in office service occupations. Some of the earlier and more significant of the investigations were completed by The Boston Chamber of Commerce,⁴ The Rochester Chamber of Commerce,⁵ and W. W. Charters and Isadore B. Whitley.⁶ Some of the later and more significant of the investigations were completed by members of the National Office Management Association in Toronto (Canada),⁷ Seattle,⁸ and Yakima.⁹ The investigations reveal

³Ibid., p. 43.

⁴Chamber of Commerce, Report of Committee on Commercial Education, (Boston, Massachusetts: Boston Chamber of Commerce, 1914).

⁵Chamber of Commerce, Survey of Needs in Commercial Education, (Rochester, New York: Rochester Chamber of Commerce, 1915).

⁶W. W. Charters and Isadore B. Whitley, Analysis of Secretarial Duties and Traits (Baltimore, Maryland: Williams and Wilkins Company, 1924).

⁷National Office Management Association, Education for Business, (Toronto, Canada: Toronto Chapter of the National Office Management Association, 1944).

⁸National Office Management Association, Business Education--The Door to the New Frontier, (Seattle, Washington: Seattle Chapter of the National Office Management Association, 1946).

⁹National Office Management Association, Business and the Schools, (Yakima, Washington: Yakima Valley Chapter of the National Office Management Association, 1949).

the nature and extent of the abilities and traits which business educators and business men consistently regard as essential.

The planning committee which worked with the author in developing some of the basic phases of this investigation recognized that the abilities and traits essential to the success of office service workers have been adequately determined. Having perused various lists of the abilities and traits, they reached the conclusion, therefore, that in this study an attempt should be made to gain information relative to the extent to which beginning office workers are deficient in the essential elements. The questionnaire for this investigation was so devised that the office managers in Oklahoma City could readily indicate the deficiencies which they observed most frequently.

The remainder of this chapter is devoted to the presentation and interpretation of data obtained from 233 office managers concerning the extent of the observable deficiencies of beginning office workers in the abilities and traits which are commonly recognized as essential to success in office service occupations.

Basic Abilities in Which Beginning Office Workers Are Deficient

Twelve basic abilities essential to success in office service occupations were selected to be included in the questionnaire which was submitted to the office managers involved in this investigation. The 12 basic abilities were listed in the questionnaire so that the 233 office managers in Oklahoma City could rank in 1-2-3-4-5 order the five abilities in which, in their opinion, beginning office workers are most

frequently deficient. The 233 office managers made a total of 1,049 responses relative to deficiencies. The responses ranged from 154 indications of the inability of beginning office workers to utilize general business information to nine indications of inability to read satisfactorily. Detailed data relative to the extent of deficiencies of beginning workers in basic abilities essential to employment in office service occupations is provided in Table VIII, page 71.

The data in this study indicate that there are five abilities in which beginning office workers are most frequently deficient. More than 45 per cent of the office managers reported that beginning office workers are deficient in each of the abilities to utilize general business information, to do logical thinking, to follow directions effectively, to utilize common business forms, or to make arithmetical computations. It is interesting to note that of the 12 abilities included in Table VIII, the five abilities in which deficiencies most frequently appear are concerned with those phases of office work which involve thinking through and executing specific tasks.

Of 233 office managers involved in this investigation, 154, or 66.1 per cent, reported that beginning office workers are deficient in the ability to utilize general business information. Fifty-one office managers ranked this deficiency first as compared with 17 who ranked the deficiency fifth. One hundred and forty-one office managers reported that office workers are deficient in the ability to do logical thinking. This deficiency was most frequently ranked as the third deficiency. There were 120 office managers who indicated that beginning

TABLE VIII

EXTENT OF DEFICIENCIES OF BEGINNING WORKERS IN BASIC ABILITIES
ESSENTIAL TO EMPLOYMENT IN OFFICE SERVICE OCCUPATIONS

Abilities Essential to the Success of Office Workers	Deficiency Responses Indicated by 233* Office Managers		Order in Which Deficiencies Were Ranked [#]				
	Number	Per Cent	1	2	3	4	5
To utilize general business information	154	66.1	51	35	30	21	17
To do logical thinking	141	60.5	23	33	46	17	22
To follow directions effectively	120	51.5	22	29	29	23	17
To utilize common business forms	107	45.9	10	20	23	37	17
To make arithmetic computations	105	45.1	29	21	16	19	20
To spell accurately	91	39.1	22	21	13	19	16
To write legibly	83	35.6	21	12	17	15	18
To perform routine bookkeeping and accounting tasks	81	34.7	19	17	13	16	16
To use correct English	77	33.1	20	15	15	9	18
To demonstrate a broad vocabulary	48	20.6	1	6	7	17	17
To speak effectively	27	11.6	1	4	4	13	5
To read well	9	3.9	0	3	1	1	4
Other abilities	6	2.6	2	0	1	0	3
No Response	15	--	--	--	--	--	--

*Office managers in 233 business enterprises were requested to indicate the rank order of the five abilities in which office workers are most deficient. Thus, there was the possibility of obtaining 1,165 responses. Actually, there were 1,049 responses with 192 managers indicating five deficiencies; 15 indicating four; 8 indicating three; 2 indicating two; 1 indicating one; and 15 managers making no response.

[#]Rank order 1 represents the most serious deficiency; rank order 5 the least.

office workers are deficient in their ability to follow directions effectively. Twenty-nine indications were made by the office managers for both the second and third rankings of this deficiency. According to 107 office managers, beginning office workers are deficient in the ability to utilize common business forms. While deficiency in this ability was ranked first by ten office managers, it was ranked fourth by 37. One hundred and five office managers indicated that beginning office workers are deficient in the ability to make arithmetic computations. The order in which this deficiency was ranked ranged from 29 first responses down to 16 third responses.

Whereas, there were five abilities in which indications of deficiencies were reported from 105 to 154 cases, there are seven abilities which range from 91 down to nine in frequency. The seven abilities which appear to be secondary in importance in Table VIII pertain to spelling, writing, bookkeeping and accounting, English, vocabulary, speech, and reading. Although responses relative to deficiencies in the 12 abilities were not in all cases numerous, it is apparent that office managers do observe deficiencies in these abilities which are commonly recognized as fundamental to almost any type of office employment.

Specific Abilities in Which Beginning Typists Are Deficient

As this study developed, it became apparent that it was impractical to try to gain information relative to specific abilities required of individuals in each of the 18 office service job classifications.

It appeared to be desirable, however, to obtain such data relative to the typist and stenographic occupations. Typists and stenographers are prepared and employed in great numbers in Oklahoma City. The office managers welcomed the opportunity to express opinions relative to deficiencies in abilities required in these two occupations.

Responses were sought relative to deficiencies in 13 abilities considered essential to the success of typists. A total of 976 responses were made by 233 office managers concerning what they observed to be the extent of deficiencies of beginning typists in the 13 abilities. The office managers were requested to indicate in 1-2-3-4-5 order the rank of the five abilities in which beginning typists are most deficient. The responses are summarized in Table IX, page 74.

The primary deficiency observed among typists is in terms of accurate typewriting. Of the 233 office managers, 170, or 73.0 per cent, reported that beginning office workers are deficient in the ability to typewrite accurately. Ninety-two office managers indicated that this deficiency should be ranked first, whereas, only 13 reported that this deficiency should be ranked fifth.

Approximately 45 per cent of the office managers indicated that beginning typists are deficient in each of the following abilities: erase and correct typewriting errors, arrange typewritten material effectively, and spell accurately. Of 233 office managers reporting, 111 indicated that typists are commonly deficient in the ability to erase and correct typewriting errors. One hundred and eight managers indicated by their responses that typists are deficient in the ability

TABLE IX

EXTENT OF DEFICIENCIES OF BEGINNING TYPISTS IN SPECIFIC ABILITIES
ESSENTIAL TO EMPLOYMENT

Abilities Essential to the Success of Typists	Deficiency Responses Indicated by 233* Office Managers		Order in Which Deficiencies Were Ranked				
	Number	Per Cent	1	2	3	4	5
To typewrite accurately	170	73.0	92	29	19	17	13
To erase and correct type- writing errors	111	47.6	15	34	28	23	11
To arrange typewritten material effectively	108	46.3	18	30	16	23	21
To spell accurately	105	45.1	13	23	29	21	19
To punctuate properly	75	32.2	5	13	13	22	22
To typewrite rapidly	74	31.8	14	12	19	11	18
To proofread accurately	68	29.2	13	15	21	9	10
To care for the typewriter	60	25.7	9	9	13	12	17
To attain production standards	52	22.3	8	10	9	10	15
To typewrite numbers	50	21.5	8	7	11	11	13
To typewrite from rough draft	37	15.9	8	5	8	9	7
To handle paper and carbons	33	14.2	3	9	9	7	5
To tabulate accurately	28	12.0	1	4	6	12	5
Other abilities	5	2.1	0	0	1	1	3
No Response	29	--	--	--	--	--	--

*Office managers in 233 business enterprises were requested to indicate the rank order of the five abilities in which beginning typists are most deficient. Thus, there was the possibility of obtaining 1,165 responses. Actually, there were 976 responses with 181 managers indicating five deficiencies; 8 indicating four; 11 indicating three; 2 indicating two; 2 indicating one; and 29 managers making no response.

to arrange typewritten material effectively. Inability to spell accurately was reported by 105 managers.

From 29.2 to 32.2 per cent of the office managers indicated that beginning typists are deficient in the abilities to punctuate properly, to typewrite rapidly, and to proofread accurately. Indications of deficiencies in the remaining six abilities listed in Table IX ranged from 28 to 60 responses.

Specific Abilities in Which Beginning Stenographers Are Deficient

Information was sought in this investigation relative to observable deficiencies in 12 abilities commonly considered as essential to success in stenographic positions. The office managers were again requested to indicate deficiencies in 1-2-3-4-5 rank order. There were 994 deficiency responses indicated by the 233 office managers who cooperated in this study. The responses ranged from 124 concerning accurate transcription to 32 relative to the ability to attain established production standards. It is interesting to note that deficiencies in connection with reading shorthand notes fluently, transcribing accurately, and composing letters effectively were most frequently indicated as primary or first rank deficiencies. Inability to read shorthand notes fluently ranked eighth among the 12 abilities in terms of total deficiency responses. The responses are summarized in Table X, page 76.

Even though in recent years business teachers have devoted much time to developing ability to transcribe shorthand accurately,

TABLE X

EXTENT OF DEFICIENCIES OF BEGINNING STENOGRAPHERS IN SPECIFIC ABILITIES
ESSENTIAL TO EMPLOYMENT

Abilities Essential to the Success of Stenographers	Deficiency Responses Indicated by 233* Office Managers		Order in Which Deficiencies Were Ranked				
	Number	Per Cent	1	2	3	4	5
To transcribe accurately	124	53.2	36	36	28	13	11
To spell accurately	112	48.1	24	22	22	28	16
To compose letters	111	47.6	37	17	25	18	14
To use correct English	93	39.9	9	23	18	22	21
To arrange letters effectively	91	39.1	8	18	24	18	23
To erase and correct type- writing errors	90	38.6	14	16	18	25	17
To punctuate properly	88	37.8	7	17	20	17	27
To read shorthand notes fluently	87	37.3	38	19	6	13	11
To take dictation rapidly	66	28.3	22	12	9	10	13
To typewrite accurately	52	22.3	6	14	6	14	12
To transcribe rapidly	45	19.3	1	7	18	11	8
To attain production standards	32	13.7	5	4	5	6	12
Other abilities	3	1.3	1	0	1	0	1
No response	26	---	---	---	---	---	---

*Office managers in 233 business enterprises were requested to indicate the rank order of the five abilities in which beginning stenographers are deficient. Thus, there was the possibility of obtaining 1,165 responses. Actually, there were 994 responses with 186 managers indicating five deficiencies; 6 indicating four; 10 indicating three; 5 indicating two; and 26 managers making no response.

53.2 per cent of the 233 office managers indicated that beginning stenographers are deficient in this ability. While this deficiency was reported by 124 managers, it was ranked as the primary deficiency of stenographers by only 36 individuals.

Approximately 48 per cent of the office managers reported that beginning stenographers are deficient in ability to spell correctly, and to compose letters. One hundred and twelve managers indicated that stenographers are deficient in the ability to spell, whereas 111 reported that stenographers cannot compose letters effectively.

The data in Table X reveal further that approximately 38 per cent of the office managers indicated that beginning stenographers are deficient in such abilities as using correct English, arranging letters, erasing and correcting typewriting errors, punctuating properly, and reading shorthand notes fluently. It should be noted that only 66 of the 233 office managers indicated that beginning stenographers are deficient in their ability to take dictation rapidly, whereas 124 office managers reported that beginning stenographers are deficient in their ability to transcribe accurately.

Personal and Character Traits in Which Beginning Office Workers Are Deficient

It is generally known that certain personality and character traits are quite firmly established before a person reaches high school. Recent studies indicate that there is still much to be desired relative to the development of certain traits of value to office workers. There is evidence, however, to indicate that circumstances can be arranged

in the secondary-school program whereby students may acquire or extend traits essential to success in various occupations. Norton¹⁰ stated that deficiencies in personality and character traits account for 90 per cent of the discharge notices received by office and clerical workers. On the basis of this and other information, it was determined that a section of this report should be devoted to consideration of the extent of deficiencies of beginning office workers in Oklahoma City in personal and character traits essential to employment in office service occupations.

Seventeen traits were selected for consideration in this study. The 233 office managers who responded to the questionnaire made a total of 1,071 responses relative to observable deficiencies in personal and character traits. The number of deficiency responses ranged from 171 regarding accuracy to 12 concerning the trait of cheerfulness. The data relative to traits essential to employment in office service occupations is summarized in Table XI, page 79.

Accuracy is the personal trait about which the office managers indicated greatest concern. Approximately three fourths of them reported that beginning office workers are not accurate with their work. Of 171 office managers indicating deficiency in this trait, 64.3 per cent ranked it as the primary deficiency of office workers.

From 40.3 to 51.5 per cent of the office managers reported that they had observed that beginning office workers are deficient in the

¹⁰T. L. Norton, Public Education and Economic Trends (Cambridge: Harvard University, 1939), pp. 135-136.

TABLE XI

EXTENT OF DEFICIENCIES OF BEGINNING OFFICE WORKERS IN TRAITS
ESSENTIAL TO EMPLOYMENT IN OFFICE SERVICE OCCUPATIONS

Traits Essential to the Success of Beginning Office Workers	Deficiency Responses Indicated by 233* Office Managers		Order in Which Deficiencies Were Ranked				
	Number	Per Cent	1	2	3	4	5
Accuracy	171	73.4	109	19	22	8	13
Initiative	120	51.5	29	30	29	18	14
Responsibility	105	45.1	13	34	12	27	19
Interest in work	94	40.3	12	21	19	23	19
Willingness to perform unpleasant tasks	86	37.0	10	15	22	19	20
Dependability	76	32.7	10	17	27	13	9
Aggressiveness	75	32.2	13	17	17	15	13
Adaptability	73	31.3	9	23	9	19	13
Neatness in work	50	21.5	7	8	14	11	10
Emotional stability	43	18.5	4	4	12	13	10
Perseverance	35	15.0	2	7	7	9	10
Cooperativeness	33	14.2	3	5	10	6	9
Punctuality	26	11.2	2	2	3	8	11
Attendance	25	10.7	1	7	1	11	5
Grooming	20	8.6	0	2	5	4	9
Courtesy	20	8.6	0	3	6	3	8
Cheerfulness	12	9.0	0	3	0	2	7
Other traits	7	3.0	3	0	0	1	3
No response	12	--	--	--	--	--	--

*Office managers in 233 business enterprises were requested to indicate the rank order of the five traits in which office workers are most deficient. Thus, there was the possibility of obtaining 1,165 responses. Actually, there were 1,071 responses with 204 managers indicating five deficiencies; 8 indicating four; 4 indicating three; 2 indicating two; 3 indicating one; and 12 managers making no response.

traits of initiative, responsibility, and interest in work. One hundred and twenty office managers indicated by their responses that office workers lack initiative; 105 reported lack of willingness to assume responsibility; and 94 had observed lack of interest in work. Deficiencies in thirteen of the traits listed in Table XI were reported by from 12 to 86 office managers. In no case was lack of one of these traits ranked first in importance by more than 13 individuals. In most instances the deficiencies were ranked as fourth or fifth in importance.

Summary

Opinions indicated by office managers in 233 business enterprises in Oklahoma City constitute the basis for the material presented in this chapter. The opinions expressed relate to the pre-employment education required of beginning office workers and the abilities and traits essential to employment in office service occupations.

More than 90 per cent of the responses made by the office managers, relative to the schooling required of beginning office service workers in the 18 job classifications included in this study, emphasize the necessity for an individual to complete high school before he seeks employment. Approximately 25 per cent of the responses indicate that one or more years of college are desirable prior to initial employment. Less than 2 per cent of the office managers believe, however, that graduation from college is necessary for employment in any office service occupation. Approximately 7.3 per cent of the responses indicated that certain office service positions are available to persons who have not been graduated from high school.

This indicates that although employment opportunities are limited, the individual who does not hold a high school diploma may still find employment in an office.

The evidence in this chapter indicates that pre-employment education at the college level is most likely to have value for persons employed in four of the job classifications utilized in this study: Private Secretary, Secretary-Stenographer, Accounting Clerk B (Junior), and Accounting Clerk A (Senior). It appears that there is little or no incentive for prospective workers in the remaining 14 job classifications to attend college. Individuals who have not completed high school programs of study can readily obtain employment in Oklahoma City in such job classifications as Typist B, Typist A, File Clerk, and Messenger-Mail Clerk.

The information in this chapter makes it apparent that beginning office workers in Oklahoma City frequently lack ability to think through and execute office tasks. Specifically, the data indicate that beginning office workers do not make effective use of general business information; do not think logically; do not follow directions effectively; do not know how business forms are utilized; and do not readily perform mathematical computations.

The evidence indicates that in the opinions of office managers beginning typists are frequently unable to typewrite with a satisfactory degree of accuracy. Office managers tend to believe, further, that beginning typists are significantly deficient in their ability to erase and correct typewriting errors; to spell correctly; and to arrange

typewritten material effectively. The office managers involved in this study also indicated that beginning stenographers are frequently deficient in ability to perform duties required of them. Beginning stenographers appear to encounter difficulty in transcribing shorthand notes, in spelling, and in using correct English. With substantial numbers of office managers indicating that typists and stenographers are deficient in basic abilities, it appears that there is need for concern on the part of persons offering instruction in these phases of business education.

An attempt was made to obtain information from the business men participating in this investigation concerning selected traits essential to employment in office positions. The majority of the office managers responding indicated accuracy to be the trait in which beginning office workers are most frequently deficient. Approximately 51 per cent of the office managers indicated that initiative is another trait in which beginning office workers are frequently deficient. A significant number of office managers indicated that beginning office workers are unable to demonstrate responsibility or interest in their work.

CHAPTER V

DUTIES OF BEGINNING OFFICE WORKERS

Introduction

It has been indicated in previous chapters of this study that the primary aim of business teachers in the public schools of Oklahoma City is to prepare qualified workers for office service occupations. In turn, business men in Oklahoma City are attempting to employ qualified office workers. Thus, it is obvious that both the business teachers and the business men need a clear understanding of the duties and tasks which are actually performed by beginning office workers in Oklahoma City. Neither the preparation for nor the employment of beginning office workers can be successful unless there is this clear understanding. Enterline¹ points up the fact that the business teachers must be well aware of the duties which beginning office workers are expected to perform if they are to make their instruction most effective. He states that:

. . . the instruction in any business course should be enriched through the use of supplementary materials particularly applicable to the business and economic environment in which the school is located and in which students live and find employment.²

¹Herman G. Enterline, "Suggested Business Curricula for the Secondary School," The Balance Sheet, Vol. XXXI, No. 1 (September, 1949).

²Ibid., p. 9.

Certainly, the duties performed constitute the most important element in the business environment.

It is generally recognized that beginning office workers have only a limited understanding of the extent of the duties they will be required to perform in specific office occupations. This is not necessarily an indictment of the business teacher who prepares the student for initial employment, nor is it an indication that the employer did not adequately inform the beginning worker regarding his duties at the time he employed him. Instead, one must recognize that the area of office service is so broad that it is almost impossible for an inexperienced person to comprehend the scope of an office service occupation. An indication of the scope of the duties that are sometimes performed by secretaries was revealed in the study completed in 1924 by Charters and Whitley³ in which it was discovered that 125 secretaries included in the investigation performed a total of 871 different office duties.

In the early stages of the planning of this investigation it became apparent to the author and to the planning committee⁴ that a portion of the study should be devoted to gathering information which might aid both business teachers and business men to understand better the duties of beginning office workers. According to available

³W. W. Charters and Isadore B. Whitley, Analysis of Secretarial Duties and Traits (Baltimore, Maryland: Williams & Wilkins Company, 1924).

⁴The planning committee was composed of four school administrators, including the present Superintendent of Oklahoma City Public Schools; four members of the Oklahoma City Chapter of the National Office Management Association, including its president; and three business teachers.

information, no formal study has previously been completed in Oklahoma City for the purpose of obtaining data regarding the duties of beginning office workers.

The list of the 30 duties to be included in this section of the questionnaire (see Appendix A) was developed after prolonged and comprehensive consideration and analysis of the common office duties as classified in various source materials, one of which was the Dictionary of Occupational Titles.⁵ In order that the most valid and reliable responses might be obtained from the business managers who would complete the questionnaire, the list of duties was restricted to 30 and to one page of the questionnaire. The 30 duties were listed at random in the questionnaire so that respondents could readily exercise their own judgment concerning the duties of beginning office workers without the development of patterns of duties.

The term "beginning office worker" takes on special significance in this chapter as the duties involved in each of the 18 occupational classifications are analyzed and interpreted. In most instances a beginning office worker is thought of as a person who is seeking employment for the first time. For educational purposes, business teachers commonly think of a beginning office worker as a person who has recently completed his high school education and is employed in his first office job. In accordance with this point of view, there are

⁵United States Government, War Manpower Commission, United States Employment Service, Division of Occupational Analysis, Dictionary of Occupational Titles, Part IV, Entry Occupational Classification, Superintendent of Documents (Washington: Government Printing Office, 1944).

many persons referred to as beginning office workers employed in such positions as junior typists, junior general clerks, file clerks, telephone operators, and messenger-mail clerks. However, there are also persons with years of business experience who by means of transfer or promotion are embarking upon the performance of new duties as senior typists, secretary-stenographers, private secretaries, senior general clerks, and senior accounting clerks. These individuals in new jobs, although with years of experience behind them, are, in this study, considered to be beginning office workers. This interpretation of what constitutes a beginning office worker is adopted to facilitate a consistent approach throughout the dissertation.

The office managers supplying data relative to the duties of beginning office workers were admonished to consider carefully the specific elements entering into each of the 18 job classifications used in this study. The managers were requested to report the duties involved in a particular position only when the duties performed coincided with the principal and primary characteristics of one of the 18 job descriptions appearing in the questionnaire. If those characteristics could not be located for any one job, no report was rendered for that particular job. The managers did not report duties of employees who normally were considered to be supervisors. Duties were not reported for part-time employees or trainees.

The discussion in this chapter is concerned with the extent to which selected duties are performed by beginning office service workers in 18 different job classifications in 233 business firms located in

Oklahoma City. The 18 job classifications, the number of firms employing workers in each classification, and the number of workers involved are indicated in Table III, page 47, in Chapter III. The detailed information concerning the duties performed by beginning workers will be presented here in three sections: (1) duties performed by workers in secretarial positions, (2) duties performed by workers in clerical and recordkeeping positions, (3) duties performed by workers in miscellaneous positions.

Duties Performed by Workers in
Secretarial Occupations

Information relative to the duties performed by beginning office workers employed in secretarial occupations was obtained from office managers in 233 business enterprises located in Oklahoma City. The office managers were requested to indicate which of the 30 duties listed in the questionnaire were performed by beginning secretarial office workers. The data reveal that all of the 30 duties are performed by secretarial workers. However, individually, the secretarial workers perform only certain of the specific duties listed in the questionnaire. It is interesting to note that as the job classifications range in importance from Typist B (Junior) to Secretary-Private the frequently performed duties of employees become more numerous (see Table XII, pages 90 and 91). Information concerning the number of duties frequently performed by secretarial employees in Oklahoma City may be summarized as follows:

<u>Occupational Classification</u>	<u>Number of Duties Common to Each Occupation</u>
Typist B (Junior)	7
Typist A (Senior)	8
Stenographer B (Junior)	13
Stenographer A (Senior)	16
Secretary-Stenographer.	18
Secretary-Private	18

The Charters and Whitley⁶ study completed in 1924 revealed that stenographers might be called upon to perform any of 871 duties other than taking dictation and transcribing shorthand notes. It can be readily understood that all stenographers would not be expected to perform the total group of duties. It is important, however, to understand the extent to which secretarial workers perform certain of the major duties.

The information which follows is concerned with the extent and frequency with which secretarial workers perform 30 selected duties in 233 business firms in Oklahoma City. In Table XII, pages 90 and 91, data is presented relative to the frequency with which beginning secretarial workers perform selected duties in the firms included in this study. The occupational classifications that are included in the table are Typist B (Junior), Typist A (Senior), Stenographer B (Junior), Stenographer A (Senior), Secretary-Stenographer, and Secretary-Private. It should be noted, if comparisons are desired, that the frequency with which the 30 duties are performed by other office service employees is revealed in Table XIII, pages 108 and 109, and in Table XIV, pages 122 and 123.

⁶Charters and Whitley, op. cit.

In general, Table XII, pages 90 and 91, reveals information concerning the duties that are performed by secretarial workers in the 233 firms included in this study. In all of the firms which employ beginning stenographers, secretary-stenographers, and private secretaries, the duties of taking dictation and transcribing notes were indicated as initial duties of persons in such positions. Actually, however, only 82 firms employ junior stenographers; 146, senior stenographers; 99, secretary-stenographers; and 94, private secretaries. Thus, it is apparent that the taking of dictation and transcribing does not occur in all the firms. It is interesting to note that of the 42 firms employing junior typists, 7.1 per cent include taking dictation and transcription as initial duties. Of the 73 firms employing senior typists, 11.0 per cent indicated that these workers take dictation and transcribe it at least occasionally.

From 70.6 to 92.9 per cent of the firms employing workers in the six secretarial classifications reported that beginning workers in those classifications are assigned the task of typewriting material from rough draft. From 58.5 to 86.9 per cent of the firms indicated that beginning workers in the secretarial occupations are assigned tasks which involve knowledge of filing systems. Approximately one half of the firms require beginning workers in all six classifications to prepare master copies for duplicating.

Information concerning the frequency of performance of the 30 duties by workers in each of the six secretarial occupations discussed here is presented in Appendix C. For purposes of expediency,

TABLE XII

EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN SECRETARIAL OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Duties Performed	Typist B (Junior)		Typist A (Senior)		Stenographer B (Junior)		Stenographer A (Senior)		Secretary- Stenographer		Private Secretary	
	42 Firms*		73 Firms		82 Firms		146 Firms		99 Firms		94 Firms	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Use filing system or systems#	31	73.8	49	67.1	68	82.9	114	78.1	86	86.9	55	58.5
Receive business callers	5	11.9	11	15.1	28	34.1	69	47.3	76	76.8	82	87.2
Transcribe legal reports	3	7.1	8	11.0	12	14.6	49	33.6	33	33.3	48	51.1
Personal services for employer	3	7.1	6	8.2	12	14.6	48	32.9	49	49.5	77	81.9
Make travel arrangements	1	2.2	2	2.7	7	8.5	32	21.9	54	54.5	73	77.7
Typewrite from rough draft	39	92.9	59	80.8	64	78.1	103	70.6	71	71.7	79	84.0
Prepare master copy for duplicating	20	47.6	41	56.2	42	51.2	78	53.4	47	47.5	47	50.0
Take dictation in shorthand and transcribe	3	7.1	8	11.0	82	100.0	146	100.0	99	100.0	94	100.0
Compose and typewrite letters	3	7.1	14	19.2	31	37.8	92	63.0	77	77.8	86	91.5
Examine and/or sort business papers	7	16.7	18	24.7	24	29.3	69	47.3	63	63.8	79	84.0
Open, sort, and distribute mail	7	16.7	11	15.1	34	41.5	61	41.8	59	59.6	61	64.9
Obtain credit ratings	3	7.1	8	11.0	14	17.1	23	15.7	26	26.3	33	35.1
(Continued on next page)												

*To be read as follows: Of 233 business firms surveyed, 42 indicated that they employ beginning office workers with the Typist B classification; 73 of the 233 employ Typists A; 82 employ Stenographers B; etc. The percentages presented in this table are based on the total number of firms employing workers in each of the six classifications.

#To be read as follows: Of the 42 business firms reporting that they employ beginning workers in the Typist B Classification, 31, or 73.8 per cent, indicated that the Typists B must be able to file; 5 firms, or 11.9 per cent of the 42 require that the Typists B receive business callers; 3, or 7.1 per cent require the Typists B to transcribe legal reports; etc.

TABLE XII--Continued

Duties Performed	Typist B (Junior)		Typist A (Senior)		Stenographer B (Junior)		Stenographer A (Senior)		Secretary- Stenographer		Private Secretary	
	42 Firms		73 Firms		82 Firms		146 Firms		99 Firms		94 Firms	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Write orders	10	23.8	18	24.7	20	24.4	29	19.9	25	25.2	25	26.6
Typewrite statistical material	26	61.9	50	68.5	42	51.2	81	55.5	53	53.5	48	51.1
Make entries in ledger accounts	1	2.2	5	6.9	2	2.4	14	9.6	4	4.0	14	14.9
Prepare operating and/or financial statements	0	0.0	2	2.7	0	0.0	13	8.9	5	5.0	12	12.8
Make journal entries	1	2.2	4	5.5	1	1.2	12	8.2	6	6.1	8	8.5
Prepare checks	7	16.7	14	19.2	9	11.0	21	14.4	24	24.2	27	28.7
Prepare pay rolls	1	2.2	2	2.7	2	2.4	15	10.3	12	12.1	16	17.0
Balance cash periodically	4	9.5	3	4.1	2	2.4	11	7.5	12	12.1	11	11.7
Prepare insurance and social security records	0	0.0	1	1.4	0	0.0	10	6.8	8	8.1	17	18.1
Use adding machine (full-bank)	9	21.4	13	17.8	16	19.5	38	26.0	23	23.2	25	26.6
Use adding machine (ten-key)	9	21.4	17	23.3	17	20.7	42	28.8	30	30.3	20	21.3
Use calculating machine	1	2.2	6	8.2	10	12.2	20	13.7	15	15.1	17	18.1
Calculate and extend reports	2	4.8	6	8.2	2	2.4	15	10.3	10	10.1	17	18.1
Use transcribing machine	6	14.3	13	17.8	24	29.3	48	32.9	32	32.5	29	30.9
Use bookkeeping machine	0	0.0	4	5.5	0	0.0	6	4.1	1	1.0	2	2.1
Operate telephone switchboard	8	19.1	16	21.9	20	24.4	27	18.5	15	15.1	11	11.7
Use Billing machine	7	16.7	11	15.1	2	2.4	7	4.8	2	2.0	1	1.1
Use Vari-Typer	1	2.2	4	5.5	2	2.4	7	4.8	6	6.1	5	5.3

discussion of only the common duties of beginning employees in the six classifications is emphasized in this section. The job description pertaining to each occupation as utilized in the survey questionnaire is reproduced in single-spaced form in each case to facilitate interpretation of the data presented.

Duties of the Typist B (Junior)

Job Description: Does typewriting of a simple, routine nature, copying from plain printed or written material, correcting copy of simple form letters, reports, and charts. May also cut stencils and address envelopes. Should be able to typewrite accurately and with fair speed. Ability to take dictation is not required.

In Table XII, pages 90 and 91, information is presented relative to the frequency with which office managers in 42 business firms indicated that 965 junior typists perform certain selected duties. Seven of the 30 duties listed in the questionnaire were indicated as being commonly performed by junior typists during the early stages of their employment. The seven duties are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Typist B (Junior)</u>	<u>Per Cent of 42 Firms</u>
Typewrite material from rough draft	92.9
Filing	73.8
Typewrite statistical material	61.9
Prepare master copy for duplicating	47.6
Typewrite orders.	23.8
Operate full-bank adding listing machine.	21.4
Operate ten-key adding listing machine.	21.4

It is significant to note in the above tabulation that filing and machine computation are common duties of the junior typist.

This is in spite of the fact that neither filing nor machine computation is mentioned in the description of this job classification. Further examination of Table XII reveals that junior typists may be required to fulfill a variety of other duties which may be in the nature of record-keeping, clerical, or even public relations activities. There is no doubt that an individual employed as a Typist B must have extensive knowledges, and even certain skills, other than those involved in mere typewriting.

In addition to the seven duties performed by more than 20 per cent of the junior typists, there are seven other duties which the junior typist may reasonably anticipate being asked to perform. These seven duties in order of the frequency with which the office managers reported them are: operate telephone switchboard; examine and/or sort business papers; open, sort, and distribute mail; operate a billing machine; prepare checks; operate a transcribing machine; and receive business callers. Of 16 remaining duties listed in the survey questionnaire, 13 were reported as duties of junior typists by only from one to four of the 42 office managers. The evidence indicates that in Oklahoma City junior typists do not prepare insurance and social security records, prepare operating and/or financial statements, or operate bookkeeping machines.

The rank-order frequency with which the 30 selected duties are performed by employees in the Typist B (Junior) classification in 42 business firms in Oklahoma City is indicated in a tabulation in Appendix C on page 190.

Duties of the Typist A (Senior)

Job Description: Does general typewriting requiring the exercise of judgment and assumption of responsibility in carrying out assignments, involving statistical material, rough draft material, and copying of technical or unusual business correspondence of other materials. Should be able to prepare stencils. Must be accurate, and have the ability to lay out and arrange work. The ability to take dictation is not required.

The data relative to the duties of senior typists presented in Table XII, pages 90 and 91, is very similar to that for the junior typists. However, office managers in 73 business firms made reports concerning the duties of senior typists, whereas only 42 managers reported about the duties of junior typists. Eight of the 30 duties listed in the questionnaire were indicated as being commonly performed by senior typists during the early stages of their employment. The eight duties are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Typist A (Senior)</u>	<u>Per Cent of 73 Firms</u>
Typewrite material from rough draft	80.8
Typewrite statistical material	68.5
Filing	67.1
Prepare master copy for duplicating	56.2
Examine and/or sort business papers	24.7
Typewrite orders	24.7
Operate ten-key adding listing machine	23.3
Operate telephone switchboard	21.9

It is apparent that in most business firms people employed in the Typist A classification are commonly called upon to do filing, examine and/or sort business papers, operate ten-key adding listing machines, and operate telephone switchboards. It is interesting to note that of the eight common duties appearing above, the last three

do not appear in the job description section of the questionnaire utilized in this investigation which relates to the duties of persons in the Typist A position.

There are ten duties in addition to the common duties listed in the foregoing tabulation which persons in the Typist A classification may reasonably expect to perform. These ten duties in order of the frequency with which the office managers reported them are: compose and typewrite letters; prepare checks; operate a full-bank adding listing machine; operate a transcribing machine; open, sort, and distribute mail; operate a billing machine; receive business callers; obtain credit ratings; take dictation in shorthand and transcribe notes; and transcribe legal reports. Twelve remaining duties listed in the survey questionnaire were reported as duties of beginning senior typists by only from one to six of the 73 office managers involved.

The rank-order frequency with which the 30 selected duties are performed by employees in the Typist A (Senior) classification in 73 business firms in Oklahoma City is indicated in a tabulation in Appendix C on page 191.

Duties of the Stenographer B (Junior)

Job Description: Takes and transcribes from shorthand notes or from dictating machine, routine dictation involving generally used business terms and expressions. Must have general knowledge of company routines and set-ups. May typewrite requisitions, orders, schedules, and checks. May work in a stenographic pool under direct supervision.

The data collected in this study indicate that stenographers in Oklahoma City commonly perform a greater variety of duties than do

typists. This fact is apparent from analysis of the information summarized in Table XII, pages 90 and 91. Office managers in 82 business firms provided information relative to the duties performed by 471 junior stenographers. Thirteen of the 30 duties listed in the questionnaire were indicated as being commonly performed by junior stenographers during the early stages of their employment. The 13 duties are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Stenographer B (Junior)</u>	<u>Per Cent of 82 Firms</u>
Take dictation in shorthand and transcribe . . .	100.0
Filing	82.9
Typewrite material from rough draft.	78.1
Prepare master copy for duplicating.	51.2
Typewrite statistical material	51.2
Open, sort, and distribute mail	41.5
Compose and typewrite letters	37.8
Receive business callers	34.1
Examine and/or sort business papers.	29.3
Operate transcribing machine	29.3
Operate telephone switchboard.	24.4
Typewrite orders	24.4
Operate ten-key adding listing machine	20.7

It is apparent that typewriting and shorthand constitute the basic skills of the junior stenographer. Seven of the 13 most common duties involve the use of a typewriter. In all of the business firms employing junior stenographers, people in that classification are actually required to take dictation in shorthand manually and transcribe it. In no case was machine shorthand reported. Although typewriting and shorthand are the concomitant skills of the junior stenographer, it

is evident that he must possess numerous types of knowledge and skill in addition to typewriting and shorthand. There are four duties in the foregoing tabulation to which no reference is made in the job description concerning the junior stenographer. The four duties are: compose and typewrite letters; receive business callers; operate telephone switchboard; and operate ten-key adding listing machine.

In addition to the 13 common duties, there are six additional duties which beginning junior stenographers may well anticipate being asked to perform. These duties in order of the frequency with which the office managers reported them involve: operation of a full-bank adding listing machine; obtaining credit ratings; performing personal services for employers; transcribing legal reports; operating a calculating machine; and preparing checks. Of 11 remaining duties listed in the survey questionnaire, eight were reported as duties of junior stenographers by only from one to seven of the 82 office managers involved. The evidence indicates that in Oklahoma City junior stenographers do not prepare insurance and social security records, prepare operating and/or financial statements, or operate bookkeeping machines. It may be noted that these are also the duties not performed by junior typists.

The rank-order frequency with which the 30 selected duties are performed by employees in the Stenographer B (Junior) classification in 82 business firms in Oklahoma City is indicated in a tabulation in Appendix C on page 192.

Duties of the Stenographer A (Senior)

Job Description: Records and transcribes dictation of more than average difficulty by use of shorthand and/or transcribing machine. Requires knowledge of proper letter forms and complicated set-ups. Must be familiar with company organization and routines. May perform related clerical duties. Works under general supervision, but must use judgment. May work in a steno-graphic pool.

The occupational classification of Stenographer A (Senior) is utilized in more offices in Oklahoma City than is any other of the six secretarial classifications involved in this investigation. Office managers in 146 business firms indicated that 578 persons were employed as senior stenographers. Sixteen of the 30 duties listed in the questionnaire were indicated by the 146 office managers as being commonly performed by senior stenographers during the early stages of their employment. The 16 duties are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Stenographer A (Senior)</u>	<u>Per Cent of 146 Firms</u>
Take dictation in shorthand and transcribe . . .	100.0
Filing	78.1
Typewrite material from rough draft.	70.6
Compose and typewrite letters.	63.0
Typewrite statistical material	55.5
Prepare master copy for duplicating.	53.4
Examine and/or sort business papers.	47.3
Receive business callers	47.3
Open, sort, and distribute mail.	41.8
Transcribe legal reports	33.6
Operate transcribing machine	32.9
Perform personal services for employer	32.9
Operate ten-key adding listing machine	28.8
Operate full-bank adding listing machine	26.0
Make travel arrangements	21.9
Typewrite orders	19.9

Approximately one half of the common duties of a senior stenographer involve the concomitant skills of typewriting and shorthand. The other duties, ranging from filing through duplicating and machine computation to performing personal services for the employer, indicate that extensive preparation and experience is required for satisfactory fulfillment of the duties of this position.

Six duties performed by beginning senior stenographers which were indicated by from 10.3 to 18.5 per cent of the 146 office managers reporting are: operate a telephone switchboard; obtain credit ratings; prepare checks; operate a calculating machine; calculate and extend reports; and prepare pay rolls. There is no duty in the list of 30 selected for this study that was not reported by at least six of the 146 office managers.

The rank-order frequency with which the 30 selected duties are performed by employees in the Stenographer A (Senior) classification in 146 business firms in Oklahoma City is indicated in a tabulation in Appendix C on page 193.

Duties of the Secretary-Stenographer

Job Description: Performs secretarial duties for one or more executives. Takes dictation by shorthand and/or transcribing machine. May be required to be versed in the technical language of a particular business. Relieves executives of minor office details and duties.

Analysis of Table XII, pages 90 and 91, reveals that 99 office managers, supervising the work of 276 persons classified as Secretary-Stenographers, reported that persons employed in this occupational

classification are assigned duties involving the taking of dictation and transcribing of notes. In addition to fulfilling their dictation-transcription function, secretary-stenographers commonly perform 17 other duties during the initial stages of their employment. The 18 duties commonly performed by persons employed in the Secretary-Stenographer classification are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Secretary-Stenographer</u>	<u>Per Cent of 99 Firms</u>
Take dictation in shorthand and transcribe . . .	100.0
Filing	86.9
Compose and typewrite letters.	77.8
Receive business callers	76.8
Typewrite material from rough draft.	71.7
Examine and/or sort business papers.	63.8
Open, sort, and distribute mail	59.6
Make travel arrangements	54.5
Typewrite statistical material	53.5
Perform personal services for employer	49.5
Prepare master copy for duplicating.	47.5
Transcribe legal reports	33.3
Operate transcribing machine	32.5
Operate ten-key adding listing machine	30.3
Obtain credit ratings	26.3
Typewrite orders	25.2
Prepare checks	24.2
Operate full-bank adding listing machine	23.2

It appears that the beginning secretary-stenographer should have a thorough knowledge of how to deal with people since she is commonly required to fulfill such duties as receiving business callers, making travel arrangements, and performing personal services for the employer. These same duties may be of concern to persons seeking employment for the first time in Oklahoma City since the duties are in

addition to those appearing in the job description utilized in this investigation. Furthermore, beginning secretary-stenographers may well be expected to use an adding machine. It is important to note that most secretary-stenographers perform 11 duties in which typewriting skill is not required.

Other than the common duties previously mentioned, there are five duties which beginning secretary-stenographers may reasonably expect to perform. The five duties in order of the frequency with which the office managers reported them are: operate a calculating machine; operate a telephone switchboard; balance cash periodically; prepare pay rolls; and calculate and extend reports.

The seven remaining duties performed by secretary-stenographers in Oklahoma City were reported by from one to eight of the 99 office managers involved. These seven duties are likewise infrequently performed by junior and senior stenographers.

The rank-order frequency with which the 30 selected duties are performed by employees in the Secretary-Stenographer classification in 99 business firms in Oklahoma City is indicated in a tabulation in Appendix C on page 194.

Duties of the Secretary-Private

Job Description: Fully qualified stenographer to one or more senior executives. Performs work of a confidential and technical nature. Takes dictation by shorthand and/or transcribing machine. Schedules appointments. Handles telephone calls. Has thorough knowledge required of routines, personnel, functions, and policies to relieve executives of minor duties.

According to accepted descriptions of the occupational classification of Secretary-Private, a fully qualified person would perform work of a confidential and technical nature and would relieve the executive of minor duties. It is apparent that this is a top-level secretarial position and that many, perhaps even most, business firms would not need to employ such a person. The data in this study appear to confirm this assumption. Of 233 business enterprises involved, only 94 employ persons in the Secretary-Private classification. A total of 207 private secretaries are employed in the 94 business firms.

The data in this study reveal that in 100 per cent of the firms employing private secretaries, beginning workers in such positions are expected to take dictation from executives and transcribe it. Likewise, in approximately 90 per cent of the firms, the beginning workers are expected to compose and typewrite correspondence on routine matters. These are perhaps the two duties most frequently associated with the job of a private secretary.

While private secretaries undoubtedly engage in many duties not considered in this study, it is significant to note that in Oklahoma City they are commonly assigned 18 of the 30 duties selected for consideration here. The 18 duties are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Secretary-Private</u>	<u>Per Cent of 94 Firms</u>
Take dictation in shorthand and transcribe	100.0
Compose and typewrite letters	91.5
Receive business callers	87.2
Examine and/or sort business papers	84.0
Typewrite material from rough draft	84.0

(Continued on next page)

Perform personal services for employer	81.9
Make travel arrangements	77.7
Open, sort, and distribute mail	64.9
Filing	58.5
Transcribe legal reports	51.1
Typewrite statistical material	51.1
Prepare master copy for duplicating.	50.0
Obtain credit ratings	35.1
Operate transcribing machine	30.9
Prepare checks	28.7
Operate full-bank adding listing machine	26.6
Typewrite orders	26.6
Operate ten-key adding listing machine	21.3

Comparison of the above list of duties with that on page 100 makes it apparent that the individual seeking employment as a Secretary-Private may expect to perform duties similar to those performed by the Secretary-Stenographer. The Secretary-Private, however, is called upon more frequently to fulfill duties in connection with utilization of business papers, personal services for the employer, travel arrangements, and other elements of a confidential or technical nature. Employment circumstances are generally conducive to a person's being promoted from Secretary-Stenographer to Secretary-Private. Thus, the beginning worker in the Secretary-Private classification may anticipate commonly performing the same duties as the Secretary-Stenographer. However, there are two elements to be noted. First, while the same duties may be required in both positions, the significance of the duties in terms of time devoted to them may vary considerably. Secondly, the Secretary-Private should expect to perform the same duties but in terms of a higher level of difficulty. To illustrate: the Secretary-Stenographer may compose only the most routine correspondence, whereas

the Secretary-Private may assume ever-increasing responsibility in composing correspondence as she relieves the top executive of his minor duties.

The office managers indicated that there are eight duties which a beginning private secretary might occasionally be asked to perform. These eight duties in order of the frequency with which the office managers reported them are: calculate and extend reports; operate a calculating machine; prepare insurance and social security records; prepare pay rolls; make entries in ledger accounts; prepare operating and/or financial statements; balance cash periodically; and operate a telephone switchboard. Of the entire list of 30 duties to which office managers were requested to respond, only four duties were considered by eight or less office managers to be an initial duty of the private secretary.

The rank-order frequency with which the 30 selected duties are performed by employees in the Secretary-Private classification in 94 business firms in Oklahoma City is indicated in the tabulation in Appendix C on page 195.

Duties Performed by Workers in General Clerical
and Recordkeeping Occupations

As in the case of other occupational classifications, information relative to the duties performed by workers in the general clerical and recordkeeping classifications was obtained from the office managers in 233 business enterprises located in Oklahoma City. The data indicate that all of the 30 selected duties are performed by

workers in the six clerical and recordkeeping occupations. However, individual general clerical and recordkeeping workers perform only certain of the specific duties listed in the questionnaire. It should be noted that in terms of importance, as measured by the number and variety of commonly performed duties, there is a wide range among the clerical and recordkeeping occupations (see Table XIII, pages 108 and 109). Information concerning the frequency with which office managers indicated that certain duties be performed by general clerical and recordkeeping employees in Oklahoma City may be summarized as follows:

<u>Occupational Classification</u>	<u>Number of Duties Common to Each Classification</u>
General Clerk B (Junior)	13
General Clerk A (Senior)	16
File Clerk	3
Accounting Clerk B (Junior).	15
Accounting Clerk A (Senior).	16
Payroll Clerk.	11

The discussion in the preceding section involves analysis of the duties of secretarial workers who are primarily concerned with the communication phase of office work. The data in Table XIII and the analysis of that data in this section are concerned with the clerical and recordkeeping phases of office work. The work of general clerks and the file clerk is generally clerical in nature. The duties of accounting clerks and the payroll clerk are primarily recordkeeping in nature.

The general subject of job classification is discussed in Chapter III and only a limited amount of additional information concerning the clerical and recordkeeping classifications is required here.

It has been estimated that there are more than four million general clerical workers in the United States and approximately two million persons employed in some bookkeeping capacity. The nature and scope of clerical activity is ever increasing. Tonne,³ an author who has written widely concerning business education, defines clerical occupations as follows:

For practical purposes, clerical occupations may be defined as the occupations that include the duties not generally assigned to bookkeepers, stenographers, salespeople, or managers.⁴

Tonne indicates further that:

Although general clerks are in reality highly specialized employees who undertake a limited number of duties, yet the specializations are so few that it is difficult to assign such workers a differentiated occupational grouping. The tendency, therefore, is to place all such workers in the classification of general clerks.⁵

In regard to the nature of the duties performed by general clerks as compared with stenographers and bookkeepers, Tonne states that: "The same tendency toward diversification that prevails in stenographic and bookkeeping positions prevails also in clerical occupations."⁶

The information in this section is concerned only with the extent to which persons employed in six clerical classifications perform 30 selected duties in 233 business firms in Oklahoma City. The data

³Herbert A. Tonne, Principles of Business Education (2d ed.; New York: McGraw-Hill Book Co., Inc., 1954).

⁴Ibid., pp. 317-318.

⁵Ibid.

⁶Ibid., p. 317.

pertinent to this section is summarized in Table XIII, pages 108 and 109. The six occupational classifications of concern here are: General Clerk B (Junior), General Clerk A (Senior), File Clerk, Accounting Clerk B (Junior), Accounting Clerk A (Senior), and Payroll Clerk. If detailed comparisons between these classifications and others of the total 18 are desired, reference should be made to Table XII, pages 90 and 91, and to Table XIV, pages 122 and 123, as well as to Table XIII.

For the most part, it is evident that those duties most common to secretarial workers are performed infrequently by general clerks and recordkeepers, and vice versa. A marked exception, however, is the duty of filing which is rated at or near the top frequency level of duties for secretarial workers, general clerks, and recordkeepers. Another duty, that of examining and/or sorting business papers, appearing near the top of the frequency listings for secretarial occupations is also near the top of listings in both the general clerical and filing classifications.

Further analysis of the data in Table XIII reveals that filing is the duty most commonly performed by general clerks and file clerks during the initial stages of their employment. The most common duty performed by beginning junior and senior general clerks is that of making entries in the ledger, and the most common duty of the payroll clerk is that of preparing the pay roll. Actually, only 52 firms employ junior general clerks; 98, senior general clerks; 96, file clerks; 90, junior accounting clerks; 121, senior accounting clerks; and 78, employ payroll clerks.

TABLE XIII
 EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN GENERAL CLERICAL AND RECORDKEEPING OCCUPATIONS
 IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Duties Performed	General Clerk B (Junior)		General Clerk A (Senior)		File Clerk		Accounting Clerk B (Junior)		Accounting Clerk A (Senior)		Payroll Clerk	
	52 Firms*		98 Firms		96 Firms		90 Firms		121 Firms		78 Firms	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Use filing system or systems#	52	100.0	94	95.9	96	100.0	44	48.9	58	48.9	28	35.9
Receive business callers	9	17.3	34	34.7	6	6.2	17	18.9	28	23.1	8	10.3
Transcribe legal reports	3	5.8	4	4.1	1	1.0	4	4.4	2	1.6	1	1.3
Personal services for employer	3	5.8	13	13.3	7	7.3	5	5.6	10	8.3	4	5.1
Make travel arrangements	1	1.9	5	5.1	0	0.0	2	2.2	5	4.1	0	0.0
Typewrite from rough draft	13	25.0	26	26.5	10	10.4	14	15.6	11	9.1	6	7.7
Prepare master copy for duplicating	11	21.1	15	15.3	4	4.2	8	8.9	6	5.0	2	2.6
Take dictation in shorthand and transcribe	1	1.9	5	5.1	3	3.1	2	2.2	4	3.3	1	1.3
Compose and typewrite letters	2	3.9	16	16.3	3	3.1	7	7.8	11	9.1	4	5.1
Examine and/or sort business papers	32	61.5	56	57.1	40	41.7	25	27.8	30	24.8	8	10.3
Open, sort, and distribute mail	21	40.4	44	44.9	34	35.4	10	11.1	13	10.7	4	5.1
Obtain credit ratings	10	19.2	27	27.5	2	2.1	19	21.1	33	27.3	2	2.6
(Continued on next page)												

*To be read as follows: Of 233 business firms surveyed, 52 indicated that they employ beginning office workers with the General Clerk B classification; 98 of the 233 employ General Clerks A; 96 employ File Clerks; etc. The percentages presented in this table are based on the total number of firms employing workers in each of the six classifications.

#To be read as follows: Of the 52 firms reporting that they employ beginning workers in the General Clerk B classification, 52, or 100.0 per cent, indicated that General Clerks B must be able to file; 9 firms, or 17.3 per cent of the 52 require that the General Clerks B receive business callers; 3, or 5.8 per cent, require the General Clerks B to transcribe legal reports; etc.

TABLE XIII--Continued

EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN GENERAL CLERICAL AND RECORDKEEPING OCCUPATIONS
IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Duties Performed	General Clerk B (Junior)		General Clerk A (Senior)		File Clerk		Accounting Clerk B (Junior)		Accounting Clerk A (Senior)		Payroll Clerk	
	52 Firms*		98 Firms		96 Firms		90 Firms		121 Firms		78 Firms	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Write orders	19	36.5	42	42.9	6	6.2	11	12.2	22	18.2	4	5.1
Typewrite statistical material	10	19.2	26	26.5	8	8.3	13	14.4	20	16.5	8	10.3
Make entries in ledger accounts	20	38.5	35	35.7	3	3.1	82	91.1	108	89.3	24	30.8
Prepare operating and/or financial statements	2	3.9	10	10.2	0	0.0	33	36.7	96	79.3	10	12.8
Make journal entries	12	23.1	31	31.6	2	2.1	67	74.4	103	85.1	20	25.6
Prepare checks	7	13.5	27	27.5	1	1.0	47	52.2	67	55.4	59	75.6
Prepare pay rolls	3	5.8	15	15.3	0	0.0	35	38.9	66	54.5	78	100.0
Balance cash periodically	7	13.5	25	25.5	1	1.0	63	70.0	83	68.6	21	26.9
Prepare insurance and social security records	5	9.6	15	15.3	0	0.0	37	41.1	74	61.2	55	70.5
Use adding machine (full-bank)	37	71.2	64	65.3	12	12.5	65	72.2	89	73.5	48	61.5
Use adding machine (10-key)	34	65.4	65	66.3	13	13.5	64	71.1	79	65.3	44	56.4
Use calculating machine	28	53.8	53	54.1	5	5.2	56	62.2	79	65.3	49	62.8
Calculate and extend reports	26	50.0	43	43.9	4	4.2	54	60.0	75	62.0	29	37.2
Use transcribing machine	3	5.8	4	4.1	4	4.2	3	3.3	6	5.0	1	1.3
Use bookkeeping machine	7	13.5	12	12.2	0	0.0	38	42.2	51	42.1	11	14.1
Operate telephone switchboard	8	15.4	13	13.3	14	14.6	3	3.3	8	6.6	3	3.8
Use billing machine	15	28.8	17	17.3	2	2.1	14	15.6	15	12.4	2	2.6
Use Vari-Typer	1	1.9	1	1.0	0	0.0	2	2.2	2	1.6	1	1.3

Information concerning the frequency of performance of the 30 duties by workers in each of the six clerical occupations discussed here is presented in Appendix C. For purposes of expediency, only the common duties of beginning employees in the six classifications are emphasized in the discussion in this section.

Duties of the General Clerk B (Junior)

Job Description: Performs duties of simple or repetitive nature, such as sorting, posting, checking, copying, and addressing envelopes. Duties performed require a minimum of previous experience and/or judgment.

Fifty-two office managers supervising the work activities of 756 junior general clerks indicated the duties performed by those clerks. The 13 duties most frequently indicated are listed here in order of their frequency:

<u>Common Duties of the General Clerk B (Junior)</u>	<u>Per Cent of 52 Firms</u>
Filing	100.0
Operate full-bank adding listing machine	71.2
Operate ten-key adding listing machine	65.4
Examine and/or sort business papers.	61.5
Operate calculating machine.	53.8
Calculate and extend reports	50.0
Open, sort, and distribute mail.	40.4
Make entries in ledger accounts.	38.5
Write orders	36.5
Operate billing machine.	28.8
Typewrite material from rough draft.	25.0
Make entries in journal.	23.1
Prepare master copy for duplicating.	21.1

Laymen sometimes incorrectly assume that clerical work is of a strictly routine nature and narrow in scope. Actually, the data here make it apparent that the duties of a General Clerk B are varied and

may involve a number of skills and knowledges. In practice the duties of a General Clerk B often extend beyond the scope of the job description utilized in this investigation. Such duties as filing, operating of calculating and adding machines, and typewriting rough draft are not usually included in such a job description. It is evident in the foregoing tabulation that filing is a duty assigned to all junior general clerks. No other duty is performed by more than three persons out of four in the General Clerk B classification. Of the 13 common duties, two require the use of a typewriter; a third duty may be performed with a typewriter. The three duties are: typewrite material from rough draft, prepare master copy for duplicating, and write orders.

In addition to the 13 common duties, there are eight duties which beginning junior general clerks may be expected to perform. These duties in order of the frequency with which the office managers reported them are: obtain credit ratings; typewrite statistical material; receive business callers; operate a telephone switchboard; balance cash periodically; prepare checks; operate a bookkeeping machine; and prepare insurance and social security records. Each of the nine remaining duties listed in the survey questionnaire was reported as a duty of junior general clerks by only from one to three of the 52 office managers involved.

The rank-order frequency with which the 30 selected duties are performed by employees in the General Clerk B (Junior) classification in 52 business firms in Oklahoma City is indicated in a tabulation in Appendix C on page 196.

Duties of the General Clerk A (Senior)

Job Description: Performs routine clerical duties under supervision, such as compiling or posting data on records, or performing similar work of average difficulty. Requires some experience and the ability to complete an assignment with a minimum of difficulty.

The data in this study indicate that there is a substantially greater number of persons employed in Oklahoma City in the occupational classification of General Clerk A (Senior) than in any of the other general clerical and recordkeeping classifications. Analysis of Table XIII reveals that 98 business firms employed 960 persons as senior general clerks, whereas 52 firms employed 756 junior general clerks. The duties of junior and senior general clerks are very similar in nature. This is evidenced by the fact that 11 of the 13 duties most commonly performed by junior general clerks are among the 16 duties most commonly performed by senior general clerks. The 16 duties most common to the General Clerk A classification are listed here in order of their frequency:

<u>Common Duties of the General Clerk A (Senior)</u>	<u>Per Cent of 98 Firms</u>
Filing	95.9
Operate ten-key adding listing machine	66.3
Operate full-bank adding listing machine	65.3
Examine and/or sort business papers.	57.1
Operate calculating machine.	54.1
Open, sort, and distribute mail.	44.9
Calculate and extend reports	43.9
Write orders	42.9
Make entries in ledger accounts.	35.7
Receive business callers	34.7
Make entries in journal.	31.6
Obtain credit ratings	27.5
Prepare checks	27.5
Typewrite material from rough draft.	26.5
Typewrite statistical material	26.5
Balance cash periodically.	25.5

The foregoing tabulation indicates that persons employed for the first time in the General Clerk A classification engage in several office activities in which office machines are involved. Of the 16 common office duties, 11 involve the manipulation of office machines, whereas five do not. The data obtained in this study reveal that one common duty of a senior general clerk is that of receiving business callers. The job description most frequently applied to the job of the General Clerk A, however, does not include reference to this duty.

There are nine other duties which beginning senior general clerks are asked to perform in fewer business firms. The duties in order of the frequency with which the office managers reported them involve: operating a billing machine; composing and typewriting letters; preparing master copies for duplicating; preparing pay rolls; operating a telephone switchboard; performing personal services for the employer; operating a bookkeeping machine; and preparing operating and/or financial statements. The five remaining duties listed in the survey questionnaire were reported as duties of senior general clerks by from one to five of the 98 office managers involved. These five duties were reported as duties of beginning junior general clerks by from one to three of the 52 office managers in firms employing junior general clerks.

The rank-order frequency with which the 30 selected duties are performed by employees in the General Clerk A (Senior) classification in 98 business firms in Oklahoma City is indicated in the tabulation in Appendix C on page 197.

Duties of the File Clerk

Job Description: Systematically classifies, indexes, and files correspondence, cards, invoices, receipts, and other records. Locates and removes material from file on request. May keep a record of material removed.

Persons employed in the occupational classification of File Clerk perform relatively few duties as compared with those individuals employed in most of the other 18 occupational classifications involved in this investigation. Of the 233 business enterprises surveyed, 96 firms indicated that 274 persons were employed as file clerks. Only three of the 30 selected duties were indicated by significant numbers of the office managers as being duties performed by file clerks during the early stages of their employment. The three duties are:

<u>Common Duties of the File Clerk</u>	<u>Per Cent of 96 Firms</u>
Filing	100.0
Examine and/or sort business papers.	41.7
Open, sort, and distribute mail.	35.4

The above tabulation makes it quite evident that the person employed as a file clerk is a specialist engaged primarily in keeping and finding business communications. In addition to the one task performed by all file clerks and the two duties performed by many, there are four duties which beginning file clerks may expect to perform. These four duties in order of the frequency with which the office managers reported them are: operate telephone switchboard; operate ten-key adding listing machine; operate full-bank adding listing machine; and typewrite material from rough draft. Of the 23 remaining duties listed in the survey questionnaire, 17 were reported as duties of file

clerks by only from one to eight of the 96 office managers reporting. The evidence indicates that in Oklahoma City file clerks do not perform duties which involve making travel arrangements, preparing insurance and social security records, preparing operating and/or financial statements, preparing pay rolls, operating bookkeeping machines, or operating a Vari-Typer.

The rank-order frequency with which the 30 selected duties are performed by employees in the File Clerk classification in 96 business firms in Oklahoma City is indicated in the tabulation in Appendix C on page 198.

Duties of the Accounting Clerk B (Junior)

Job Description: Keeps a record of, and works with less than, a complete set of accounting records. May perform the more routine calculating and posting duties necessary in accounting; verifies the company bank account; keeps files of records; prepares invoices or monthly customers' statements; posts to and balances accounts receivable or accounts payable; takes trial balances.

In Table XIII, pages 108 and 109, information is presented relative to the duties that 406 junior accounting clerks perform in 90 business firms. The table also reveals data concerning the duties of persons in the Accounting Clerk A (Senior) and Payroll Clerk classifications. It is significant that a greater number of firms employ senior accounting clerks than employ either junior accounting or payroll clerks.

Fifteen of the 30 selected duties listed in the questionnaire were indicated by office managers as duties performed by junior accounting clerks during the early stages of their employment. The 15

duties are listed here in order of the frequency with which the managers reported them:

<u>Common Duties of the Accounting Clerk B (Junior)</u>	<u>Per Cent of 90 Firms</u>
Make entries in ledger accounts	91.1
Make entries in journal	74.4
Operate full-bank adding listing machine.	72.2
Operate ten-key adding listing machine.	71.1
Balance cash periodically	70.0
Operate calculating machine	62.2
Calculate and extend reports.	60.0
Prepare checks	52.2
Filing	48.9
Operate bookkeeping machine	42.2
Prepare insurance and social security records . . .	41.1
Prepare pay rolls	38.9
Prepare operating and/or financial statements . . .	36.7
Examine and/or sort business papers	27.8
Obtain credit ratings	21.1

According to the junior accounting clerk job description utilized in this investigation, persons employed in this classification are not required to be proficient in the operation of adding and/or calculating machines. In terms of the duties listed in the above tabulation, however, it is apparent that the junior accounting clerk must have a working knowledge of bookkeeping and the ability to operate machines which perform such functions as adding, calculating, posting, and check writing. Whereas the duties of persons employed in most of the 18 job classifications utilized in this study involve frequent use of a typewriter, the duties of the accounting clerks appear to require the use of a typewriter only infrequently.

There are six duties which the junior accounting clerk is frequently asked to perform other than the 15 common duties listed above.

These six duties in order of the frequency with which the office managers reported them are: receive business callers; operate billing machine; typewrite material from rough draft; typewrite statistical material; write orders; and open, sort, and distribute mail. Nine remaining duties listed in the survey questionnaire were reported as duties of junior accounting clerks by only from two to eight of the 90 office managers involved.

The rank-order frequency with which the 30 selected duties are performed by employees in the Accounting Clerk B (Junior) classification in 90 business firms in Oklahoma City is indicated in the tabulation in Appendix C on page 199.

Duties of the Accounting Clerk A (Senior)

Job Description: Keeps a complete and systematic set of accounting records. Examines and records transactions in proper record books. Journalizes transactions where judgment must be used as to accounts affected. Balances books and compiles reports at regular intervals.

The duties of the senior accounting clerk are similar to the duties of the junior accounting clerk according to an analysis of the data as revealed in Table XIII, pages 108 and 109. The data were obtained by means of questionnaires completed by 121 office managers who supervise the work activities of 430 senior accountants in Oklahoma City. Whereas the junior accounting clerks commonly perform 15 duties, the senior accounting clerks in from 23 to 89 per cent of the firms perform 16 duties. According to the data obtained in this study, senior accounting clerks are expected to assume duties well beyond those included in the job description utilized during the survey, since the

common duties of these employees include the operation of adding and/or calculating machines as well as receiving business callers. Although the duties of the senior accounting clerk were indicated by the office managers as being similar to those of the junior accounting clerk, it may safely be assumed here that the senior accounting clerk would perform the duties with a higher degree of skill and responsibility. The following tabulation indicates the frequency with which office managers in 121 business firms reported the duties of the senior accounting clerks:

<u>Common Duties of the Accounting Clerk A (Senior)</u>	<u>Per Cent of 121 Firms</u>
Make entries in ledger accounts	89.3
Make entries in journal	85.1
Prepare operating and/or financial statements . .	79.3
Operate full-bank adding listing machine.	73.5
Balance cash periodically	68.6
Operate calculating machine	65.3
Operate ten-key adding listing machine.	65.3
Calculate and extend reports.	62.0
Prepare insurance and social security records . .	61.2
Prepare checks	55.4
Prepare pay rolls	54.5
Filing	48.9
Operate bookkeeping machine	42.1
Obtain credit ratings	27.3
Examine and/or sort business papers	24.8
Receive business callers.	23.1

There are additional duties which beginning senior accounting clerks may expect to perform, although less frequently than the common duties previously mentioned. These four duties in order of the frequency with which the office managers reported them are: write orders; typewrite statistical material; operate billing machine; and open, sort, and distribute mail. Ten remaining duties listed in the survey

questionnaire were reported as duties of senior accounting clerks by from two to 11 of the 121 office managers involved.

The rank-order frequency with which the 30 selected duties are performed by employees in the Accounting Clerk A (Senior) classification in 121 business firms in Oklahoma City is indicated in the tabulation in Appendix C on page 200.

Duties of the Payroll Clerk

Job Description: Computes wages of company employees and writes the proper data on payroll sheets; calculates each worker's earnings based on timekeeper's report, individual time cards, and work or production tickets; posts calculated data on payroll sheet (such as name of worker, working days, time, rate, deductions, and total wages due). May make out pay checks and assist paymaster in making up and distributing pay envelopes.

The data in Table XIII indicate that the Payroll Clerk performs few duties that are not accounting in nature, and one may assume that he is primarily concerned with the preparation and maintenance of payroll records. Office managers who supervise the work activities of 204 payroll clerks in 78 business firms indicated that beginning payroll clerks in Oklahoma City commonly perform 11 of the 30 selected duties which were listed in the questionnaire utilized in this study. The 11 duties are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Payroll Clerk</u>	<u>Per Cent of 78 Firms</u>
Prepare pay rolls	100.0
Prepare checks	75.6
Prepare insurance and social security records . .	70.5
Operate calculating machine	62.8
Operate full-bank adding listing machine.	61.5

(Continued on next page)

Operate ten-key adding listing machine	56.4
Calculate and extend reports	37.2
Filing	35.9
Make entries in ledger accounts.	30.8
Balance cash periodically.	26.9
Make entries in journal.	25.6

It is apparent that a person seeking employment as a Payroll Clerk will be expected to engage in the preparation and maintenance of payroll records. It is also apparent that the beginning payroll clerk must be equipped with certain knowledges and abilities which will enable him to perform satisfactorily duties involving the operation of different types of office machines.

In addition to the duties most common to the classification of Payroll Clerk, there are five duties which are less frequently associated with that classification. The five duties in order of the frequency with which the office managers reported them are: operate bookkeeping machine; prepare operating and/or financial statements; examine and/or sort business papers; receive business callers; and typewrite statistical material. Of the 14 remaining duties listed in the survey questionnaire, 13 were reported as duties of payroll clerks by only from one to six of the 78 business firms involved in this study. The evidence indicates that in Oklahoma City payroll clerks do not make travel arrangements.

The rank-order frequency with which the 30 selected duties are performed by employees in the Payroll Clerk classification in 78 business firms in Oklahoma City is indicated in the tabulation in Appendix C on page 201.

Duties Performed by Workers in
Miscellaneous Occupations

Office managers in 233 business firms located in Oklahoma City reported the duties performed by beginning office workers in six miscellaneous occupations: Calculating Machine Operator, Transcribing Machine Operator, Tabulating Machine Operator, Key-Punch Machine Operator, Telephone Operator, and Messenger-Mail Clerk. The information provided by the office managers indicates that each of the 30 duties is performed by certain of the workers employed in the miscellaneous occupations. However, no single worker in any one of the miscellaneous occupational classifications performs all 30 of the duties. The data in this study indicate that the balancing of cash, preparing of insurance and social security records, and preparing of operating and financial statements is done only by calculating machine operators. Furthermore, only the transcribing machine operators are called upon to compose and typewrite letters.

The numbers of duties common to the miscellaneous occupations are relatively few as compared with those of most of the secretarial and general clerical and recordkeeping occupations. Information concerning the number of duties common to the miscellaneous occupations may be summarized as follows:

<u>Occupational Classification</u>	<u>Number of Duties Common to Each Classification</u>
Calculating Machine Operator	5
Transcribing Machine Operator.	9
Tabulating Machine Operator.	2
Key-Punch Machine Operator	5
Telephone Operator	6
Messenger-Mail Clerk	7

TABLE XIV
 EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN MISCELLANEOUS OFFICE OCCUPATIONS
 IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Duties Performed	Calculating Machine Operator		Transcribing Machine Operator		Tabulating Machine Operator		Key-Punch Machine Operator		Telephone Operator		Messenger-Mail Clerk	
	41 Firms*		16 Firms		24 Firms		6 Firms		89 Firms		45 Firms	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Use filing system or systems#	11	26.8	10	62.5	4	16.7	4	66.7	27	30.3	24	53.3
Receive business callers	0	0.0	2	12.5	0	0.0	0	0.0	64	71.9	5	11.1
Transcribe legal reports	0	0.0	4	25.0	0	0.0	0	0.0	2	2.2	1	2.2
Personal services for employer	0	0.0	2	12.5	0	0.0	0	0.0	20	22.5	14	31.1
Make travel arrangements	0	0.0	0	0.0	0	0.0	0	0.0	27	30.3	2	4.4
Typewrite from rough draft	0	0.0	9	56.2	0	0.0	0	0.0	15	16.8	2	4.4
Prepare master copy for duplicating	0	0.0	8	50.0	0	0.0	0	0.0	5	5.6	3	6.7
Take dictation in shorthand and transcribe	0	0.0	4	25.0	0	0.0	0	0.0	5	5.6	0	0.0
Compose and typewrite letters	0	0.0	3	18.8	0	0.0	0	0.0	0	0.0	0	0.0
Examine and/or sort business papers	1	2.4	2	12.5	20	83.3	2	33.3	9	10.1	16	35.3
Open, sort, and distribute mail	0	0.0	0	0.0	1	4.2	0	0.0	25	28.7	45	100.0
Obtain credit ratings	0	0.0	1	6.2	0	0.0	0	0.0	3	3.4	0	0.0
(Continued on next page)												

*To be read as follows: Of 233 business firms surveyed, 41 indicated that they employ beginning office workers with the Calculating Machine Operator classification; 16 of the 233 employ Transcribing Machine Operators; 24 employ Tabulating Machine Operators; etc. The percentages presented in this table are based on the total number of firms employing workers in each of the six classifications.

#To be read as follows: Of the 41 firms reporting that they employ beginning workers in the Calculating Machine Operator classification, 11, or 26.8 per cent, indicated that Calculating Machine Operators must be able to file; none of the 41 require that the Calculating Machine Operators receive business callers; none require the Calculating Machine Operators to transcribe legal reports; etc.

TABLE XIV--Continued

EXTENT TO WHICH SELECTED DUTIES ARE PERFORMED BY BEGINNING WORKERS IN MISCELLANEOUS OFFICE SERVICE OCCUPATIONS
IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Duties Performed	Calculating Machine Operator		Transcribing Machine Operator		Tabulating Machine Operator		Key-Punch Machine Operator		Telephone Operator		Messenger-Mail Clerk	
	41 Firms		16 Firms		24 Firms		6 Firms		89 Firms		45 Firms	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Write orders	0	0.0	0	0.0	1	4.2	0	0.0	10	11.2	5	11.1
Type statistical material	3	7.3	5	31.2	0	0.0	1	16.7	11	12.4	0	0.0
Make entries in ledger accounts	3	7.3	0	0.0	0	0.0	0	0.0	1	1.1	0	0.0
Prepare operating and/or financial statements	1	2.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Make journal entries	2	4.9	0	0.0	1	4.2	1	16.7	1	1.1	1	2.2
Prepare checks	0	0.0	0	0.0	1	4.2	0	0.0	1	1.1	3	6.7
Prepare pay rolls	3	7.3	0	0.0	1	4.2	0	0.0	0	0.0	1	2.2
Balance cash periodically	3	7.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Prepare insurance and social security records	2	4.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Use adding machine (full bank)	20	48.8	1	6.2	4	16.7	3	50.0	10	11.2	9	20.0
Use adding machine (10-key)	17	35.4	4	25.0	4	16.7	5	83.3	10	11.2	10	22.2
Use calculating machine	41	100.0	0	0.0	5	20.8	1	16.7	6	6.7	3	6.7
Calculate and extend reports	29	70.7	1	6.2	3	12.5	2	33.3	2	2.2	2	4.4
Use transcribing machine	1	2.4	16	100.0	1	4.2	0	0.0	1	1.1	1	2.2
Use bookkeeping machine	2	4.9	2	12.5	1	4.2	0	0.0	1	1.1	0	0.0
Operate telephone switchboard	2	4.9	1	6.2	0	0.0	1	16.7	89	100.0	9	20.0
Use billing machine	1	2.4	0	0.0	1	4.2	0	0.0	3	3.4	0	0.0
Use Vari-Typer	0	0.0	1	6.2	0	0.0	1	16.7	1	1.1	0	0.0

The data pertinent to the duties common to the six miscellaneous office occupations are summarized in Table XIV, pages 122 and 123. If detailed comparisons with the other 12 occupational classifications are desired, reference should be made to Table XII, pages 90 and 91, and Table XIII, pages 108 and 109, as well as to Table XIV. For purposes of expediency, the discussion in this section pertains primarily to the common duties of beginning employees in the six miscellaneous classifications.

Duties of the Calculating Machine Operator

Job Description: Primarily occupied in operation of a machine that performs the arithmetic computations of adding, subtracting, multiplying, and dividing.

Although only 41 of the 233 firms surveyed employed calculating machine operators, there were 233 operators in those firms performing duties primarily concerned with the operation of computing machines. The data in Table XIV indicate that of the 30 duties listed in the questionnaire utilized in this study only five were commonly considered to be duties of beginning calculating machine operators. The five most frequently indicated duties are listed here in order of the frequency with which the office managers reported them:

<u>Common Duties of the Calculating Machine Operator</u>	<u>Per Cent of 41 Firms</u>
Operate calculating machine	100.0
Calculate and extend reports.	70.7
Operate full-bank adding listing machine.	48.8
Operate ten-key adding listing machine.	35.4
Filing.	26.8

It appears from a study of the foregoing common duties that a person employed as a beginning worker with the classification of a Calculating Machine Operator should be able to operate three types of computing machines. He must know how to operate calculating machines of either the key-driven or rotary type, and in addition he should know how to operate adding listing full-bank or ten-key machines. It is significant that in addition to the duties regarding the operation of computing machines, that in 26.8 per cent of the 41 firms employing calculating machine operators, filing is considered to be one of the duties of persons in this job classification.

Four other duties are also performed by beginning calculating machine operators, although less frequently indicated by the office managers. These four duties in order of the frequency with which the office managers reported them are: balance cash periodically; make entries in ledger accounts; prepare pay rolls; and typewrite statistical material.

The rank-order frequency with which duties are performed by employees in the Calculating Machine Operator classification is indicated in the tabulation in Appendix C on page 202.

Duties of the Transcribing Machine Operator

Job Description: Transcribes the message, reproduced in sound, from a recording device on a transcribing machine. May typewrite other supplementary information not recorded.

There are fewer persons in Oklahoma City employed as transcribing machine operators than are employed in any of the other 17

job classifications utilized in this study. According to the data revealed in Table XIV, pages 122 and 123, 16 business firms employed a total of only 47 transcribing machine operators. There were nine duties common to the daily routine of these 47 persons. The nine duties are:

<u>Common Duties of the Transcribing Machine Operator</u>	<u>Per Cent of 16 Firms</u>
Operate transcribing machine	100.0
Filing	62.5
Typewrite material from rough draft.	56.2
Prepare master copy for duplicating.	50.0
Typewrite statistical material	31.2
Take dictation in shorthand and transcribe	25.0
Transcribe legal reports	25.0
Operate ten-key adding listing machine	25.0
Compose and typewrite letters.	18.8

Twenty-five per cent of the office managers responding to the questionnaire utilized in this investigation indicated that beginning transcribing machine operators should be able to take dictation in shorthand and transcribe their notes. Although the operation of a transcribing machine necessarily involves highly specialized skills, it is obvious in the above tabulation that persons operating transcribing machines are commonly required to perform other duties, such as filing, typewriting special materials, and operating a ten-key adding listing machine.

Transcribing machine operators may well anticipate being asked to perform four other duties in addition to the nine duties appearing in the preceding tabulation. These four duties in order of the frequency with which the office managers reported them are: examine and/or sort business papers; perform personal services for the employer;

receive business callers; and operate a bookkeeping machine. Of the 17 remaining duties which were included in the questionnaire, twelve were not reported as being duties of the Transcribing Machine Operator, and five additional duties each were reported by only one business firm as being duties of the Transcribing Machine Operator.

The rank-order frequency with which duties are performed by employees in the Transcribing Machine Operator classification is indicated in the tabulation in Appendix C on page 203.

Duties of the Tabulating Machine Operator

Job Description: Operates a machine that automatically analyzes, makes calculations and translates or divides information represented by holes punched in groups of tabulated cards, and prints the translated data on form sheets, reports, special cards or accounting records. Sets or adjusts machine to add, subtract, multiply and make other calculations. May operate auxiliary machines.

In accordance with the above job description, the duties in this investigation indicate that the Tabulating Machine Operator performs specialized work. The information in Table XIV indicates that in the 24 firms, 266 persons were employed as tabulating machine operators and performed primarily two duties other than the basic task of operating the tabulating machine. The two duties as reported by the office managers are tabulated here:

<u>Common Duties of the Tabulating Machine Operator</u>	<u>Per Cent of 24 Firms</u>
Examine and/or sort business papers	83.3
Operate calculating machine	20.8

In accordance with the job description utilized in this study concerning the Tabulating Machine Operator, the calculator is an

auxiliary machine. It seems pertinent to mention here that of the 266 persons employed as tabulating machine operators, 243 were employed at Tinker Air Force Base near Oklahoma City.

There are four additional duties which tabulating machine operators may reasonably expect to perform. The four duties in order of the frequency with which the office managers reported them are: operate a full-bank adding listing machine; operate a ten-key adding listing machine; file; and calculate and extend reports. Sixteen of the 30 duties included in the questionnaire utilized in this study are not performed by tabulating machine operators. Furthermore, there were eight duties each indicated as being performed in at least one office.

The rank-order frequency with which duties are performed by employees in the Tabulating Machine Operator classification is indicated in the tabulation in Appendix C on page 204.

Duties of the Key-Punch Machine Operator

Job Description: Records accounting and statistical data in tabulating cards by punching a series of holes in specified sequence, using a key-punch machine. May operate a verifying machine.

Another highly specialized occupation is that of Key-Punch Machine Operator. As in the case of the calculating and tabulating machine operators, persons who operate key-punch machines generally perform no more than five duties as part of their daily routine. It is interesting to note that there are only six of the 233 firms surveyed which employ key-punch machine operators. Furthermore, 91 of the 158 key-punch machine operators included in this survey are employed at

Tinker Air Force Base. It seems apparent that, for the most part, key-punch machine operators are employed in only the larger business firms located in Oklahoma City.

Other than the basic duty of operating the key-punch machine, as shown in the job description utilized in this study, the operator may be concerned with five additional duties which were indicated by the six office managers who responded to this section of the questionnaire. The five duties in order of the frequency with which the office managers reported them are as follows:

<u>Common Duties of the Key-Punch Machine Operator</u>	<u>Per Cent of 6 Firms</u>
Operate ten-key adding listing machine	83.3
Filing	66.7
Operate full-bank adding listing machine	50.0
Calculate and extend reports	33.3
Examine and/or sort business papers.	33.3

The above duties are similar to those performed by persons employed as operators of calculating machines. It is apparent that the Key-Punch Machine Operator is commonly expected to perform additional duties than are indicated in the job description utilized in this investigation.

Of the 25 remaining duties performed by key-punch machine operators in Oklahoma City, five were reported only one time by at least one firm, and none of the office managers reporting indicated that key-punch machine operators would be expected to perform any of the remaining 20 duties during the initial stages of their employment.

The rank-order frequency with which duties are performed by employees in the Key-Punch Machine Operator classification is indicated in the tabulation in Appendix C on page 205.

Duties of the Telephone Operator

Job Description: Operates switchboard handling incoming, outgoing, and intra-company calls. Keeps a record of long distance calls; is responsible for checking telephone calls. May have incidental duties, such as receiving business callers. Requires a good knowledge of personnel of establishment. Operates inter-communication system. May operate paging and public address system and/or plant music player.

Telephone operators rank third in the number of persons employed in any one of the 18 job classifications included in this investigation. Of the 888 persons employed by the 89 firms included in this study, 725 were employed by the Oklahoma City Metropolitan Exchange of Southwestern Bell Telephone Company.

In Table XIV data are revealed which indicate the extent to which office managers in the firms indicated the duties which beginning telephone operators are expected to perform. The six duties which the office managers most frequently indicated that telephone operators perform are tabulated as follows:

<u>Common Duties of the Telephone Operator</u>	<u>Per Cent of 89 Firms</u>
Operate telephone switchboard	100.0
Receive business callers	71.9
Filing	30.3
Make travel arrangements.	30.3
Open, sort, and distribute mail	28.7
Perform personal services for employer.	22.5

Although the above tabulation indicates that the Telephone Operator does not perform many duties, it should be noted that these

few duties involve special skills and knowledges which by their very nature suggest that the person employed as a telephone operator must not only be dependable, but also must assume more than ordinary responsibility in order to properly execute his job. These same duties must of necessity be performed in proximity to the telephone switchboard. Other duties indicated less frequently as being necessary for beginning telephone operators to perform are: typewrite material from rough draft; typewrite statistical material; operate full-bank adding listing machine; operate ten-key adding listing machine; write orders; and examine and/or sort business papers.

Unlike the five previously described miscellaneous occupations, the Telephone Operator may be expected to perform a relatively wide variety of duties since there were only five duties which the 89 office managers inferred that telephone operators do not perform. Six duties each were indicated as being performed by no more than one business firm; seven additional duties were indicated as being performed by telephone operators in from two to six business firms.

The rank-order frequency with which duties are performed by employees in the Telephone Operator classification is indicated in the tabulation in Appendix C on page 206.

Duties of the Messenger-Mail Clerk

Job Description: Processes incoming and outgoing mail. May perform a variety of related duties, such as distributing and collecting letters, messages, packages, documents, records, inter-office memoranda, and other items in offices and departments within an establishment. May operate a letter-opening machine, a stamping machine, a sealing machine, and perform other minor office duties.

A person seeking employment as a messenger-mail clerk in the business firms of Oklahoma City would be surprised to note that he may be expected to perform a wide variety of duties other than those indicated in the preceding job description. According to the data as summarized in Table XIV, 19 of the 30 duties listed are performed by one or more messenger-mail clerks included in this investigation. Data taken from questionnaires returned by office managers in 45 business firms located in Oklahoma City indicate that the office managers most frequently indicated seven duties which are commonly performed by beginning messenger-mail clerks. The seven duties which were based upon the activities of 172 messenger-mail clerks are tabulated below according to the frequency with which the 45 office managers reported them:

<u>Common Duties of the Messenger-Mail Clerk</u>	<u>Per Cent of 45 Firms</u>
Open, sort, and distribute mail	100.0
Filing	53.3
Examine and/or sort business papers	35.3
Perform personal services for employer.	31.1
Operate ten-key adding listing machine.	22.2
Operate full-bank adding listing machine.	20.0
Operate telephone switchboard	20.0

The data as presented in the above tabulation make it apparent that messenger-mail clerks engage primarily in activities relative to the opening, sorting, and distribution of mail. It is also apparent that messenger-mail clerks are expected to perform duties which include both manual and mechanical skills as well as the ability to withstand an unusual amount of physical activity. The messenger-mail clerk in some instances may be expected to receive business callers and to write orders.

There were 12 duties which were reported by from one to five office managers as being performed during the initial stages of employment of persons classified as a Messenger-Mail Clerk. An additional 11 duties included in the questionnaire were not considered as being necessary for messenger-mail clerks to perform during the early stages of their employment.

The rank-order frequency with which duties are performed by employees in the Messenger-Mail Clerk classification is indicated in a tabulation in Appendix C on page 207.

Summary

The information in this chapter indicates that beginning office workers in 233 business firms in Oklahoma City perform a wide variety of duties in most office service job classifications. Actually, in the 18 job classifications utilized in this study workers perform duties which extend well beyond the job description limitations for the various positions. The extent to which beginning employees in 18 job classifications perform 30 selected duties is clearly shown in this chapter. The data concern duties performed by individuals in (1) secretarial, (2) general clerical and recordkeeping, and (3) miscellaneous occupations.

The evidence in this chapter indicates that secretarial workers perform a wide variety of duties which involve not only knowledges and skills, but also the ability to exercise judgment and make decisions. Furthermore, typists and stenographers frequently perform duties which extend well beyond the limits of job descriptions, and,

in many instances, perform duties similar to those involved in higher-level secretarial positions. The data imply that persons employed in the lower job classifications, such as Typist B (Junior), are in most business firms encouraged to prepare themselves for promotion to higher-level positions. In the offices of Oklahoma City, workers in the six secretarial occupations perform four duties in common without regard to their specific job classifications. The four duties are: typewriting from rough draft, filing, typewriting statistical material, and preparing copy for duplicating.

In general, persons employed in the general clerical and recordkeeping occupations perform duties that are more specialized in nature than those of secretarial workers. The file clerk concerns himself primarily with filing, but may be required to perform other duties only indirectly related to his primary responsibility. Accounting clerks concern themselves primarily with the recordkeeping functions of the office, but likewise may perform duties only indirectly related to their basic responsibility. Duties reported to be common to both the general and accounting clerk type of job classifications are filing, calculating and extending reports, and the operation of various computing machines.

Persons in occupations referred to as "miscellaneous", for the most part, perform duties involving the use of mechanized office equipment. Employees in the six miscellaneous occupations involved in this study are seldom called upon to perform duties other than those directly related to the operation of their specific office equipment.

The additional duties which they may be called upon to perform generally involve filing, typewriting, or the examining and sorting of business papers.

Analysis of data contained in this chapter reveals that the operation of machines is a duty of persons employed in all the 18 job classifications. Therefore, office managers and business teachers alike should be interested in improving the circumstances surrounding the preparation and employment of personnel in occupations involving machine operation. It is possible for a person to become qualified in a relatively short time to operate specialized office equipment, such as the Vari-Typer, transcribers, and key-punch machines. Because the demand for such highly skilled persons is relatively small, it seems reasonable to assume that the training of persons to operate such office equipment should be limited to either the manufacturer of the specialized equipment, or to certain selected schools equipped to supply the operator with the required amount of skill.

CHAPTER VI

MISCELLANEOUS FACTORS IN THE EMPLOYMENT OF BEGINNING OFFICE WORKERS

In this chapter data are presented concerning three phases of the over-all problem of the education and employment of office service workers. The three somewhat unrelated phases pertain to opportunities for initial employment of beginning office service workers, devices and procedures used by office managers in the selection of those workers, and office equipment used in Oklahoma City. The scope of the data concerning initial employment and equipment is not extensive. The data are presented, therefore, in this one miscellaneous chapter rather than being segregated. This is in contrast to the presentations in Chapters IV and V where single elements of the investigation are discussed at considerable length.

Opportunities for Initial Employment in Office

Service Occupations in Oklahoma City

Since the beginning of World War II there has been an ever-increasing demand for workers in business occupations. Constantly changing world conditions indicate that this demand for business workers will continue into the foreseeable future. According to Tonne,¹ there

¹Herbert A. Tonne, Principles of Business Education (2d ed.; New York: McGraw-Hill Book Co., Inc., 1954), p. 120.

was a 44 per cent increase in the number of persons engaged in business occupations in the ten-year period from 1940 to 1950. Tonne reports further that there was a 58 per cent increase in the number of office service workers employed as accountants, bookkeepers, cashiers, and clerks. During this same period office workers found it relatively easy to gain employment in Oklahoma City. Conversely, office managers experienced much difficulty securing qualified personnel to fill certain office positions. It appears, then, that in Oklahoma City as in other metropolitan areas the opportunities for initial employment in office service occupations are numerous.

In this study office managers in 233 business enterprises in Oklahoma City were requested to indicate the extent of difficulty they experienced in obtaining office employees to fill positions in 18 selected occupational classifications. One hundred and eighty-six of the office managers indicated in 1-2-3-4-5 rank order the occupational classifications in which they had difficulty in obtaining qualified personnel. A total of 846 responses was recorded with 37 of the office managers reporting difficulty in securing personnel for only from one to four job classifications; 47 managers made no response whatever. The number of responses ranged from 118 indicating difficulty in obtaining Stenographers A (Senior) to eight indicating that it is difficult to find Key-Punch Operators. It appears significant that while 186 office managers reported difficulty in employing persons in one or more of the 18 occupational classifications, 47, or 20.2 per cent of the 233 office managers, did not report such difficulty. Comments made by several of the office managers in the latter group indicated that they were not

acutely aware of an employment shortage because private employment agencies secured employees for them. The difficulties, if any, were encountered by the employment agencies and not the office managers. It should be noted that office managers not employing workers in certain of the 18 occupational classifications could not experience difficulty with those classifications.

In Table XV, page 139, the data concerning difficulties in securing employees are summarized. Study of Table XV makes it apparent that upper-level secretarial and accounting positions are most difficult to fill. The two positions of Stenographer A (Senior) and Accounting Clerk A (Senior) were reported by approximately one-half of the office managers as the most difficult of the 18 occupational classifications to fill. Private Secretaries and Secretary-Stenographers were reported by approximately 40 per cent of the office managers as difficult to obtain. A significant number of office managers reported that they had experienced difficulty in obtaining personnel for the Accounting Clerk B (Junior) and Stenographer B (Junior) occupational classifications. It is interesting to note that of the six most difficult positions to fill, four are secretarial in nature and two are accounting.

The data in Table XV indicate that, in terms of rank "1" responses, the occupational classification of Private Secretary is the most difficult for which to find qualified employees. In terms of total responses, however, this classification ranks third, with Stenographer A and Accounting Clerk A preceding it. Although 118 office managers agreed that it is difficult to find qualified Stenographers A (Senior), they

TABLE XV

EXTENT OF DIFFICULTY IN OBTAINING BEGINNING OFFICE WORKERS IN 18 OFFICE SERVICE OCCUPATIONS IN 233 BUSINESS FIRMS IN OKLAHOMA CITY

Occupational Classifications	Difficulty Responses as Indicated by 186* Office Managers		Order in Which Difficulties in Obtaining Employees Were Ranked [#]				
	Number	Per Cent of 233	1	2	3	4	5
Stenographer A (Senior)	118	50.6	24	32	22	21	19
Accounting Clerk A (Senior)	112	48.1	42	27	17	22	4
Private Secretary	93	40.0	50	25	9	7	2
Secretary-Stenographer	90	38.6	26	17	22	15	10
Accounting Clerk B (Junior)	64	27.5	3	11	20	19	11
Stenographer B (Junior)	57	24.5	9	17	11	10	10
Telephone Operator	48	20.6	3	6	12	11	16
General Clerk A (Senior)	48	20.6	6	9	9	10	14
Payroll Clerk	48	20.6	5	6	12	9	16
Calculating Machine Operator	33	14.2	2	9	13	5	4
Typist A (Senior)	32	13.7	1	2	9	8	12
File Clerk	25	10.7	3	8	3	3	8
General Clerk B (Junior)	18	7.7	2	3	2	8	3
Tabulating Machine Operator	18	7.7	5	1	3	2	7
Transcribing Machine Operator	13	5.6	2	2	2	3	4
Typist B (Junior)	11	4.7	0	2	2	5	2
Messenger-Mail Clerk	10	4.3	2	1	2	0	5
Key-Punch Operator	8	3.4	0	2	2	3	1
No Response	47	--	--	--	--	--	--

*Office managers in 233 business enterprises were requested to indicate in rank order the extent of difficulty they experienced in obtaining beginning office service workers. There was the possibility of obtaining 1,165 responses. Actually, there were 846 responses from 186 managers: 149 managers indicating five difficulties; 11 indicating four; 11 indicating three; 9 indicating two; 6 indicating one, and 47 managers making no response.

[#]Rank order 1 represents the most serious deficiency; rank order 5 the least.

did not agree on the extent of the difficulty. Approximately the same number of office managers indicated each of the ranks "1" through "5".

Although it is an established fact that most office service workers obtain initial employment as file clerks and typists, the data in this study do not indicate that employers encounter much difficulty in locating such employees. Of course, this may be due to large numbers of persons being available for such employment as well as lower employment standards prevailing. Of the 18 occupational classifications listed in Table XV, six were reported as difficult to fill by approximately 25 per cent or more of the office managers; six, by approximately 10 to 20 per cent; and six, by less than 8 per cent.

There is no doubt that opportunities for employment in Oklahoma City exist for persons prepared for office service occupations. The evidence presented in this section is conclusive. It should be noted, however, that the greatest opportunities (as revealed by difficulty in filling positions) lie in the upper-level positions which are secretarial and accounting in nature.

Opportunities for Cooperative Part-Time Work Experience

In many cities throughout the United States high school and college students are engaged in cooperative part-time work programs of education in which they gain realistic vocational training by being employed in actual job situations. The nature of such programs is explained by Dame and Brinkman:²

²J. Frank Dame and Albert R. Brinkman, Guidance in Business Education (2d ed.; Cincinnati: South-Western Publishing Co., 1954).

The part-time program brings employers and the school together in cooperative educational effort. The employer provides a planned and directed work experience on a real job, while the school provides technical instruction related to the work experience.³

Advocates of cooperative part-time work experience indicate that through joint efforts on the part of school officials, teachers, students, and business men better education results. There tends to be a better understanding of common problems which relate to preparation for the world of work.

Federal funds are provided through the Smith-Hughes Act for the purpose of promoting cooperative part-time work programs in various phases of vocational business training. Up to the present time, only a relatively small amount of these funds has been appropriated for public high school business education programs for the preparation of office employees. Promotion of part-time programs in the field of business education for the purpose of preparing office service workers, therefore, is dependent almost entirely upon the interest and initiative demonstrated by business education students, teachers, and business men in the local community.

Various attempts in past years have not succeeded in maintaining a continuous or widespread cooperative part-time program for prospective office service workers in the Oklahoma City Public School System. During the initial phases of this investigation a joint meeting was held by Oklahoma City Public School officials, business education teachers, and local business men, at which time the need for an

³Ibid., p. 33.

effective cooperative part-time program for prospective office service workers was discussed. The group agreed that there is a definite need for such a program in Oklahoma City. It was recognized that evidence was needed to indicate the extent to which the business men of Oklahoma City would cooperate in a part-time program for the preparation of office service workers. The planning committee agreed that an item should be included in the survey questionnaire utilized in this investigation to determine the extent to which selected office managers approved of and would cooperate with a part-time work experience program. The question was: "Will you cooperate with the public schools by employing part-time students who can get credit as well as earn while they learn?"

Of the 233 office managers involved in this study, only 136 responded to the question concerning cooperative part-time work experience for business students. Ninety, or 66.2 per cent, of the 136 office managers indicated they would cooperate if such a program were developed; 46 reported that they would not cooperate. Some of the office managers who responded with a "no" answer qualified their replies with comments to the effect that they believed the basic idea involved in the training of prospective office workers through part-time work was commendable. They stated that, for reasons beyond their control, they would be unable to cooperate in such a program. Perhaps the most consistent remark indicated that, due to a general shortage of office personnel, people were not available to supervise part-time workers who might be sent to them from the high schools.

Employment Opportunities for Physically-Handicapped Persons

During the developmental stages of this study interest was exhibited by office managers and other business men in Oklahoma City in the employment of physically-handicapped persons. Possibly the extensiveness of this interest is evidence of the effectiveness of the educational program for physically-handicapped persons in Oklahoma City. Officials responsible for occupational training and placement of physically-handicapped persons frequently look to office managers to aid them in this task. The nature of a rehabilitation program for physically-handicapped persons is generally explained as follows:

Vocational rehabilitation, as provided today by the States with the assistance of the Federal Government, is a service to preserve or restore the ability of our people to work for pay. Authorized by Federal and State laws, it is a public service, primarily for civilians with physical or mental impairments. Most veterans of our armed forces have the benefit of special legislation. Veterans, however, are not excluded from services under the civilian program.

The State-Federal program of vocational rehabilitation is a public service in the same sense as the school systems, visiting-nurse services, health centers, welfare agencies, libraries, water systems, and police and fire departments. It is not charity. Vocational rehabilitation services are intended as a legal right.⁴

It is common knowledge that many agencies and groups are cooperating in the effort to aid physically-handicapped persons. There are at least 32 such agencies and groups which contribute in a variety of ways to the rehabilitation program in Oklahoma. Office managers have taken not only an active part through some of the 32 agencies but

⁴Vocational Rehabilitation for Civilians. Pamphlet issued by the Federal Security Agency, Office of Vocational Rehabilitation, Washington, D. C., p. 1.

also many have assumed positions of leadership coordinating and directing the joint efforts of the 32 agencies and groups into a well-organized statewide rehabilitation program.

The rehabilitation program in Oklahoma City is very extensive. Information is constantly needed, however, which will enable directors of the program to make it even more effective. In an effort to gain some insight into the extent of the employment of handicapped persons in office service occupations, two items were included in the questionnaire for this investigation. The questions were: "Do you employ physically-handicapped persons?" and "For what types of jobs do you employ handicapped persons?"

One hundred and forty-eight office managers responded to the question concerning the employment of handicapped persons. Of the 148, 117 reported that they did employ handicapped persons; 31 indicated that they did not. Comments made by a few office managers who did not respond with a definite "yes" or "no" answer indicated that they would not object to employing handicapped persons if those persons could qualify fully for available positions.

Answers to the question pertaining to the types of jobs available to physically-handicapped persons were rather indefinite. In general, the comments made by the office managers revealed that numerous types of office positions are available to physically-handicapped persons. The comments indicated that in certain business firms only one or two specific positions are assigned to handicapped persons. In other business firms handicapped persons are employed to fill any

position for which they have the required qualifications. The types of office employment most frequently available to physically-handicapped persons involve typewriting, general clerical duties, and routine bookkeeping tasks.

Devices and Procedures Used in the Selection
of Office Service Workers

The selection of personnel to fill satisfactorily positions such as the 18 occupational classifications used in this study is extremely important to the success of a business enterprise. The specialized activities involved in the office service occupations make it imperative that persons be selected for such occupations who are well equipped with specific knowledges and skills. Failure of office workers to possess the required knowledges and skills can only contribute to ineffective office operations. Of equal importance are the attitudes and personal characteristics which office employees exhibit. There is evidence to indicate that more than 80 per cent of all the persons who are dismissed from office positions fail because they lack proper attitudes and personal characteristics which are helpful in dealing with other people. There is no doubt but that the selection of office employees goes far beyond merely determining the extent of the skills possessed by prospective employees. Although progress is being made in the development of selection techniques and devices, there is much evidence to indicate that the over-all process of hiring and firing remains imperfect.

Because the selection of employees is important, information was sought in this investigation concerning certain devices and procedures that are utilized. Specific information was sought regarding the significance which business men in Oklahoma City attach to six devices and procedures used in selecting office workers. The office managers responded to this section of the questionnaire by ranking the six devices and procedures in terms of their importance in the final selection of office employees. If all of the 233 office managers had made complete responses to this section of the questionnaire, a total of 1,398 rankings would have been indicated. Actually, 870 rankings were indicated with 52 managers making complete responses as they ranked all six devices and procedures; 42 managers ranked five of the devices and procedures; 22, ranked four; 49, ranked three; 50, ranked two; and two managers failed entirely to respond. The data obtained do not reveal why the office managers failed to respond in all cases. Logic and interpretation of the comments submitted by some of the office managers indicate that when an item was not ranked, it was because the manager did not use that device or procedure in the selection process prevailing in his office.

The data relative to the significance of certain devices and procedures used in the selection of office employees are summarized in Table XVI, page 147. The data reveal that in the opinion of office managers the personal interview is the most significant procedure for selecting office employees in Oklahoma City. Of the 231 office managers who responded to this section of the questionnaire, 224, or

TABLE XVI
SIGNIFICANCE OF CERTAIN PROCEDURES AND DEVICES USED IN THE
SELECTION OF OFFICE SERVICE EMPLOYEES

Procedures and Devices Used in the Selection Process	Responses Indicated by 231* Office Managers		Order in Which Procedures and Devices Were Ranked					
	Number	Per Cent of 233	1	2	3	4	5	6
Personal Interviews	224	96.1	168	42	14	0	0	0
Business References	187	80.3	21	71	47	25	14	9
Application Blanks	148	63.5	15	46	49	20	13	5
School Records	112	48.1	5	11	25	31	31	9
Recommendations by Teachers	106	45.5	2	13	19	24	27	21
Performance on Entrance Tests	93	39.9	16	34	12	15	10	6
No Response	2	--	--	--	--	--	--	--

*Office managers in 233 business enterprises were requested to indicate in rank order the importance they attach to the use of certain procedures and devices in the selection of beginning office service workers. Thus, there was a possibility of obtaining 1,398 responses. Actually, there were 870 responses with 52 office managers indicating six procedures and devices; 42 indicating five; 22 indicating four; 49 indicating three; 50 indicating two; 11 indicating one, and two managers making no response.

96.9 per cent, indicated that the personal interview is one of the three most significant factors in the selection of employees. Of the 224 office managers holding this opinion, 75.0 per cent ranked the personal interview as the number "1" selection procedure. None of the office managers believed that the interview procedure should be ranked less than "3" in terms of significance.

The data in Table XVI make it apparent that office managers in Oklahoma City utilize business references and application blanks to supplement the personal interview. Approximately 80 per cent of the office managers involved in this investigation utilize business references in selecting employees and consider this device to be relatively significant. Application blanks are utilized by 63.5 per cent of the managers and are considered to have about the same significance as the business references.

The information in Table XVI makes it apparent that the office managers involved in this study, in general, consider school records, teachers' recommendations, and performance on entrance tests to be relatively unimportant factors in selection as compared with the personal interview, business references, and application blanks. Only 62 of 233 office managers indicated the belief that performance on entrance tests is sufficiently important to be ranked "1", "2", or "3" among six procedures and devices. Forty-one managers indicated that school marks are relatively significant in their selection procedures; 34 managers believed that teachers' recommendations are significant.

The evidence in this study clearly indicates that in the opinions of the office managers involved in this investigation the personal interview is the most important procedure used by them in making their final selection of office service employees; furthermore, they frequently utilize business references and application blanks to supplement interviews. It seems apparent that the office managers attach greatest significance to their own contacts with potential employees or on information they themselves obtain. Seldom do they attach significance to information supplied by the schools, such as data in school records and recommendations by teachers. Undoubtedly, office managers recognize certain weaknesses in all procedures and devices for selecting employees. They tend to place more confidence in their own judgments than in the judgments of other individuals.

Office Equipment Utilized in Oklahoma City

The tremendous volume of paper work in business and industry today necessitates widespread utilization of various types of business machines and office equipment. Office managers are aware of the extent to which machines are needed, and they tend to make maximum use of machines in all routine procedures; furthermore, they tend to utilize the most modern and the most nearly automatic machines available. In contrast, there is much evidence to indicate that the business classrooms in the public schools seldom contain adequate amounts of modern equipment for instructional purposes. In general, the age of typewriters for instructional purposes range from five to ten years; whereas, machines used in the average office have seldom been in use

for more than five years. In this investigation an attempt has been made to gain some specific data concerning the use of selected office machines⁵ in Oklahoma City.

The data in Table XVII, page 151, constitute a summary of the information that was obtained from office managers in Oklahoma City relative to the number and types of machines being utilized and the approximate age of the machines. There were 5,364 machines of 17 different types reported by 228 office managers. Of these machines, 1,355, or 25.3 per cent, were located at Tinker Air Force Base. The number of machines reported ranged from 13 offset duplicating machines to 1,069 full-bank adding listing machines. More than 73 per cent of the machines were less than five years old; 17.1 per cent were six to ten years old; only 9.2 per cent had been in use for 11 or more years. All of the 1,355 machines used at Tinker Air Force Base were reported to have been in use for less than five years.

Approximately 87 per cent of the office machines reported were included in seven of the 17 types of machines listed in the survey questionnaire. The seven types of machines are: full-bank adding listing, ten-key adding listing, rotary calculator, key-driven calculator, electric typewriter, transcriber, and stencil duplicating. It is interesting to note that computing machines are used in more firms than are any other kinds of machines. Likewise, the number of computing machines far exceeds the number of any other kinds of machines.

⁵The term "machines" will hereinafter apply to all 17 types of the office equipment appearing in Table XVII, page 151.

TABLE XVII

INFORMATION CONCERNING THE USE OF SELECTED TYPES OF OFFICE MACHINES
IN 228* BUSINESS ENTERPRISES IN OKLAHOMA CITY

Type of Machine	Number of Firms Using Each Type	Per Cent of 228 Firms	Number of Machines in Use	Age of Machines		
				1-5 Years	6-10 Years	11 or More Years
Ten-key adding listing	146	64.0	894	687	171	36
Rotary calculator	125	54.8	849	672	157	20
Full-bank adding listing	104	45.6	1,069	645	232	192
Stencil duplicating	101	44.3	218	138	46	34
Private Branch Exchange Equipment	100	43.9	101	71	5	25
Electric typewriter	92	40.3	624	599	15	10
Transcriber	85	37.3	478	366	65	47
Key-driven calculator	81	35.5	436	266	83	87
Bookkeeping machine (typewriter keyboard)	59	25.9	143	83	52	8
Posting machine (not typewriter keyboard)	51	22.4	105	86	5	14
Liquid duplicating	49	21.5	123	106	14	3
Billing	49	21.5	102	65	30	7
Key-punch	21	9.2	110	100	8	2
Gelatin duplicating	21	9.2	27	19	4	4
Bookkeeping machine (full-bank)	17	7.5	40	25	7	8
Offset duplicating	11	4.8	13	11	2	0
Bookkeeping machine (ten-key)	11	4.8	32	8	20	4
Totals	---	---	5,364	3,947	916	501

*Five of the 233 business enterprises involved in this investigation made no response to this phase of the survey.

Three types of computing machines are widely used; the full-bank adding listing machine, the ten-key adding listing machine, and the rotary calculator. A relatively large number of electric typewriters, transcribers, key-driven calculators, and stencil duplicating machines were reported.

Not only are ten-key adding listing machines found in great number, but they are more widely distributed throughout the 228 offices than any of the other 16 types of machines. Sixty-four per cent of the 228 business firms possessed at least one ten-key adding listing machine. Although there were more full-bank adding listing machines reported than any other type of machine, they were available in less than 50 per cent of the 228 firms. The explanation for this situation is that in one firm alone there were 125 full-bank adding listing machines. Rotary calculators were being utilized in 54.8 per cent of the business firms participating in this study.

The widespread use of the electric typewriter is evidenced by 624 machines located in 92 firms. One hundred and fifty-six electric typewriters were located at Tinker Air Force Base. There were 478 transcribing machines being utilized in 85 business firms. Various concentrations of the transcribing machines are evidenced by the fact that one firm utilized 30 machines, aged five years or less; another firm utilized 11 machines, aged 11 or more years. Approximately 44 per cent of the 228 firms were making use of stencil duplicating machines and private branch exchange equipment.

Casual observation by the author of office machines used for instructional purposes in the Oklahoma City Public School System during

the early phases of this investigation revealed that most of the machines other than typewriters were 11 or more years of age. Most of the typewriters were from five to ten years old. Actually, some of the business machines used for instruction were 25 or more years of age. The findings in this investigation indicate that, for the most part, business organizations in Oklahoma City utilize equipment that is much more modern than that used for instruction in the schools.

Summary

The evidence in this chapter indicates that office managers encounter difficulty in finding adequately prepared workers in all office service occupational classifications. The data indicate further that it is extremely difficult for office managers to secure employees prepared to perform the duties involved in occupations which are secretarial or accounting in nature. In general, it appears that a substantial number of opportunities exists for beginning workers in all of the 18 occupational classifications involved in this investigation.

In addition to the regular employment opportunities available to office service workers in Oklahoma City, there is evidence that business men are willing to cooperate with the schools in an effort to provide on-the-job work experience for business students so that they may gain practical experience prior to full-time employment. Information gained regarding the employment of handicapped persons indicates that a significant number of these persons is now employed in business firms in Oklahoma City and that additional opportunities for employment exist.

The office managers involved in this investigation reported that of the six devices and procedures used for selecting employees the interview is considered to be the most significant. The managers frequently use business references and application blanks to supplement personal interviews. Office managers, in general, attach only limited significance to school records, recommendations by teachers, and performance on entrance tests as factors in selecting employees.

Extensive use of modern office machines is made in most of the offices which are represented in this study. Relatively few offices are equipped with machines which are more than five years of age. Although there are some instances in which certain types of machines are concentrated in a few firms the machines are, for the most part, distributed among a wide variety and number of business enterprises. The machines reported to be most widely utilized are the ten-key adding listing machines, rotary calculators, key-driven calculators, full-bank adding listing machines, stencil duplicators, electric typewriters, and transcribing machines. These machines are utilized extensively in from 35 to 64 per cent of the firms involved in this study.

CHAPTER VII

SUMMARY AND CONCLUSIONS

The problem of this study was to reveal information that would enable business students, business teachers, school administrators, and business men in Oklahoma City to understand better the circumstances surrounding the employment of beginning office workers.

Specifically, the problem included an extensive survey of the opinions of office managers in 233 selected business firms relative to such phases of office service occupations as: (1) the employment opportunities available to beginning workers, (2) the basic education requirements, (3) the means by which employees are selected, (4) the duties of beginning workers, (5) the traits and abilities in which beginning workers are deficient, and (6) the types of office machines and equipment utilized. The opinions of the office managers resulted from experience gained from supervision of 8,546 office service workers. These workers were employed in 18 occupational classifications as follows: Typist B (Junior), Typist A (Senior), Stenographer B (Junior), Stenographer A (Senior), Secretary-Stenographer, Private Secretary, General Clerk B (Junior), General Clerk A (Senior), File Clerk, Accounting Clerk B (Junior), Accounting Clerk A (Senior), Payroll Clerk, Calculating Machine Operator, Transcribing Machine Operator, Tabulating

Machine Operator, Key-Punch Machine Operator, Telephone Operator, and Messenger-Mail Clerk.

The first step in the procedure used to carry on this investigation involved an analysis of questionnaire techniques in order to determine their appropriateness for collecting data relative to circumstances surrounding the employment of beginning office workers in Oklahoma City. The author, working with a committee of school personnel and office managers, developed the questionnaire to be used and established the procedure for its use. After a trial study was completed, improvements were made in the questionnaire, and it was circulated to 324 business enterprises selected by the committee to represent an adequate sampling of basic industries located in Oklahoma City. Two hundred and thirty-three usable questionnaires were returned representing 54 different kinds of business enterprises. The data obtained from the questionnaires were tabulated and analyzed. The final step involved a summarization of the data and preparation of this report.

Summary

The information obtained in this investigation of the circumstances surrounding the employment of beginning office service employees is broad in scope. For purposes of reporting, however, the basic data were readily classified in terms of: the qualifications of beginning workers in office service occupations, the duties of beginning office service employees, and miscellaneous factors in the employment of beginning office service workers.

Qualifications of Beginning Workers in Office Service

Occupations.---The 233 office managers participating in this study indicated in the survey questionnaire their opinions relative to qualifications essential for initial employment of beginning office service workers. They indicated their opinions primarily in terms of pre-service education, specific abilities required, and traits essential to success. The responses made by the office managers reveal that, in general, persons seeking employment in the 18 occupational classifications utilized in this investigation should be high school graduates. The fact remains, however, that a substantial number of opportunities for employment exists for persons who have not been graduated from high school. These opportunities exist primarily in five of the 18 occupational classifications.

In approximately 10 per cent of the business firms involved in this study, people who have not been graduated from high school may be employed in the Typist B classification; in 11.7 per cent of the firms they may be employed in the Telephone Operator classification; in 13.9 per cent, the General Clerk B classification; in 17.9 per cent, the File Clerk classification; and in 41.0 per cent, the Messenger-Mail Clerk classification. Conversely, there is evidence to indicate that pre-service education at the collegiate level is of real significance in only six of the 18 occupational classifications. In approximately 36 per cent of the business enterprises involved in this study, persons with one or more years of college are employed in the Stenographer A classification; in 38.4 per cent of the firms they may be employed in

the Payroll Clerk classification; in 44.0 per cent, the Accounting Clerk B classification; in 49.7 per cent, the Secretary-Stenographer classification; in 50.8 per cent, the Accounting Clerk A classification; and in 61.4 per cent, the Private Secretary classification.

In order to facilitate the obtaining of responses from the office managers relative to the abilities and traits essential for initial employment of beginning office service workers, a negative approach was taken in the survey questionnaire. The office managers were requested to indicate the deficiencies in abilities and traits which they most frequently observed in beginning workers. The data pertaining to this phase of the investigation reveal that 66.1 per cent of the 233 office managers believed that beginning workers are deficient in ability to utilize general business information; that 60.5 per cent contended that beginning workers do not think logically; that 51.5 per cent believed that beginning workers do not follow directions effectively; that 45.9 per cent believed that beginning workers lack the ability to utilize common business forms properly; and that 45.1 per cent were convinced that beginning employees lack the ability to make arithmetical computations. In contrast to these rather high percentages, it should be noted that far fewer of the office managers reported that beginning office employees are deficient in such basic abilities as spelling, penmanship, English usage, speech, and reading.

Information was sought in this study relative to the extent of deficiencies of typists and stenographers in elements of the basic skills required in their work. Seventy-three per cent of the office

managers involved indicated that inability to typewrite accurately was a deficiency of typists in their organizations. More than one-half of these managers indicated that this was the major deficiency. Other deficiencies, such as inability to correct errors, inability to arrange material, and failure to spell accurately were reported rather frequently. None of these deficiencies, however, were indicated by as many as 50 per cent of the office managers.

As in the case of the typists, the data in this study indicate that stenographers are primarily deficient in terms of accuracy of their work. Approximately 53 per cent of the office managers indicated that stenographers in their firms tend to transcribe inaccurately. Closely associated with this deficiency are others reported, such as inability to spell accurately, inability to use correct English, lack of ability to erase and correct errors, and inability to punctuate properly.

Information was obtained from the 233 office managers concerning selected personal and character traits essential to employment in office positions. Accuracy is the personal trait which was most frequently emphasized by the office managers; 73.4 per cent of them believed that beginning office workers tend to perform inaccurately the work that is assigned to them. According to the data in this study, 51.5 per cent of the office managers believed that beginning office workers lack initiative; 45.1 per cent indicated that they fail to assume responsibility; and 40.3 per cent reported that beginning office employees do not exhibit interest in their work. The data in this study indicate that office employees in Oklahoma City are only

occasionally deficient in such personal traits as: cheerfulness, courtesy, good grooming, attendance, punctuality, cooperativeness, and perseverance.

The information gained concerning the specific deficiencies of typists and stenographers emphasizes that people in such occupations often perform their work in an inaccurate manner. It appears, then, that there may be a direct correlation between existing deficiencies in terms of accuracy as a personal trait and the tendency to be inaccurate in the performance of assigned tasks. In the opinions of the office managers, employees frequently do not initiate, organize, and execute office tasks effectively. Again there is evidence of a direct correlative relationship because the office managers also report that individual employees lack initiative, interest in work, and willingness to assume responsibility.

Duties of Beginning Office Service Employees.— Information was obtained from the 233 office managers in Oklahoma City in an effort to enable business teachers and business men to understand better the extent to which beginning office workers perform selected duties. The information obtained pertained to the duties performed by office service workers in 18 occupational classifications. To facilitate presentation of data, the information was classified in terms of duties performed by workers in secretarial positions, workers in clerical and recordkeeping positions, and workers in miscellaneous office positions.

The evidence in this study indicates that beginning office service workers in Oklahoma City perform a wide variety of duties in

most of the office service job classifications. The workers perform the duties which are ordinarily stated in standard job descriptions. In addition, they perform duties which extend well beyond the job description limitations for the various positions. For example, secretarial workers perform duties which involve not only a wide variety of knowledges and skills but also the exercising of judgments and the making of decisions. Typists and stenographers are often called upon to perform duties which extend well beyond the limits of their job descriptions; and, in many instances, they perform duties quite similar to those involved in higher-level secretarial positions.

From the data gained in this investigation it may be inferred that persons employed in the lower job classifications, such as Typist B (Junior), are in most business firms encouraged to prepare themselves for promotion to higher-level office positions. In Oklahoma City, workers in secretarial occupations perform four duties in common without regard to their specific job classifications. The four duties are: typewriting from rough draft, filing, typewriting statistical material, and preparing copy for duplicating.

In general, persons employed in the clerical and recordkeeping occupations perform duties that are more specialized in nature than those of secretarial workers. The file clerk concerns himself primarily with filing, but he may occasionally be required to perform other duties indirectly related to his primary responsibility. Accounting clerks concern themselves primarily with the recordkeeping functions in the office, and they may likewise occasionally perform duties indirectly

related to their basic responsibilities. Duties reported to be common to both general and accounting clerks are filing, calculating and extending reports, and the operation of various computing machines.

Persons in occupations referred to in this study as "miscellaneous" perform duties involving primarily the use of mechanized office equipment. Employees in miscellaneous occupations, such as tabulating machine operator or key-punch machine operator, are seldom called upon to perform duties other than those directly related to the operation of their specific office machines.

It appears from interpretation of the data accumulated in this investigation that there is an ever-increasing need for office equipment operators. Thus, it also seems reasonable to assume that office managers and business teachers alike must endeavor to improve the circumstances surrounding the preparation and employment of personnel in occupations involving machine operation.

Miscellaneous Factors in the Employment of Beginning Office Service Workers.-- Information was obtained in this study regarding three somewhat unrelated phases of the over-all problem of the education and employment of office service workers. Specifically, the three phases involve: opportunities for initial employment of beginning office service workers, devices and procedures used by office managers in the selection of those workers, and office equipment used in Oklahoma City.

Data gained from the survey questionnaires returned by the 233 office managers in Oklahoma City revealed that approximately 50 per

cent of the office managers experienced difficulty in employing senior stenographers and senior accounting clerks. Approximately 40 per cent of the office managers reported that the positions of private secretary and secretary-stenographer were difficult to fill. The occupational classification of Private Secretary was reported most frequently as the classification which ranked first in difficulty to fill. It is evident that office managers experience greater difficulty in securing workers for the higher-level office service positions than for the positions at the lower level. Information presented earlier in this investigation reveals that persons seeking employment in higher-level office service positions must possess extensive education, ability, and experience.

In addition to the regular employment of office service workers, there is evidence to indicate that business men are willing to cooperate with the schools in providing students with on-the-job training so that they may gain practical work experience prior to full-time employment. Information gained regarding the employment of handicapped persons indicates that a significant number of these persons are employed in business firms in Oklahoma City.

The office managers involved in this investigation reported that of six devices and procedures for selecting employees, the personal interview is most significant in the final selection of office service workers. Not only did 96.1 per cent of the office managers reporting indicate that the personal interview is the selection device most used by them, but three fourths of this same group ranked this device first in importance. From 63.5 to 80.3 per cent of the office managers

reported that they utilize application blanks and business references to supplement employment interviews. Less than 50 per cent of the office managers believed that information gained from school records, recommendations made by teachers, and performance showed on entrance tests are significant in the final selection of office workers.

Extensive use is made of modern office machines in most of the business firms represented in this study. In relatively few offices are machines utilized that are more than five years of age. Although there are some instances in which certain types of machines are concentrated in a few firms, for the most part the machines are distributed among a wide variety and number of business enterprises. The office machines used in from 37 to 64 per cent of the business firms were the ten-key adding listing machines, rotary calculators, full-bank adding listing machines, key-driven calculators, stencil duplicating machines, electric typewriters, and transcribing machines. Private branch exchange telephone equipment is utilized in approximately 44 per cent of the business firms involved in this study.

Conclusions

The conclusions presented here are based upon opinions rendered by office managers in 233 selected business enterprises in Oklahoma City. It may reasonably be assumed that the circumstances surrounding the employment of office service workers in Oklahoma City are similar to the circumstances existing in other large cities throughout the United States. No claim is made, however, that the data

presented in this investigation or the conclusions reached are applicable to circumstances other than those specifically set forth.

1. One of the primary qualifications for initial employment in an office service occupation in Oklahoma City is graduation from high school. Relatively few opportunities for employment exist for the individual who has not finished high school; and then they exist only in the lower level of the occupational classifications. Conversely, in only a few of the top-level office service occupational classifications is education beyond the secondary school considered to be essential by a significant proportion of office managers.

2. Beginning employees, in general, in office service occupations encounter difficulty in initiating, organizing, and executing efficiently the office tasks assigned to them. Primary factors contributing to this difficulty are failure to utilize general business information efficiently, lack of ability to think in a logical manner, failure to follow directions effectively, lack of ability to utilize common business forms properly, and inability to make arithmetical computations.

3. Beginning typists and beginning stenographers are frequently deficient in their ability to perform efficiently the tasks which are basic to their occupational classifications. In the opinions of office managers, beginning typists are frequently inaccurate, they do not erase and correct errors, they fail to arrange typewritten material effectively, and they are unable to spell and punctuate properly. Likewise, in the opinions of office managers, beginning

stenographers frequently transcribe inaccurately, do not use correct English, fail to arrange letters effectively, do not erase and correct errors, and are unable to spell and punctuate properly.

4. Accuracy is the single personal trait, reported by office managers, in which beginning office service employees in all occupational classifications are most frequently deficient.

5. It is common practice for office employees to perform a wide variety of specific duties. Actually, the assignments of office workers frequently extend well beyond the descriptions of the duties for which they were initially employed. Their assignments may involve many knowledges, extensive use of machines, and the exercising of judgment in making decisions. Only in occupational classifications involving the operation of office machines is there a tendency for workers to perform a limited number of specific duties.

6. Office managers experience greatest difficulty in obtaining qualified workers for secretarial and accounting positions. Although difficulty may be encountered in securing employees for any or all of the office service occupational classifications, managers continue to experience greatest difficulty in filling vacancies in the upper-level classifications.

7. Office managers, for the most part, base their selection of office service workers upon the information they gain in the process of conducting personal interviews with the prospective employees. They tend to supplement the employment interviews only with business references and application blanks.

8. The use of modern office machines in Oklahoma City is widespread and extensive. The evidence in this investigation indicates that almost all office employees in Oklahoma City are required to utilize one or more office machines in addition to the typewriter.

BIBLIOGRAPHY

Books and Magazines

- Charters, W. W., and Whitley, Isadore B. Analysis of Secretarial Duties and Traits. Baltimore, Maryland: Williams & Wilkins Co., 1924.
- Dame, J. Frank, and Brinkman, Albert R. Guidance in Business Education. Cincinnati: South-Western Publishing Co., 1954.
- Debo, Angie. Oklahoma Foot-Loose and Fancy-Free. Norman: University of Oklahoma Press, 1949.
- Enterline, Herman G. "Suggested Business Curricula for the Secondary School," The Balance Sheet, Vol. XXXI, No. 1 (September, 1949), 4-9.
- Kling, T. W. "Educational Assistance Through the National Office Management Association," UBEA Forum, Vol. IV, No. 5 (February, 1950), 38,42.
- Littlejohn, Vance T. "Business Education Calls for Cooperation," Office Executive, Vol. 26, No. 6 (June, 1951), 17-19.
- Lomax, Paul S. "Business Education and the Nation's Educational Level," (Editorial), The Journal of Business Education (December, 1953), 103, 124.
- Norton, T. L. Public Education and Economic Trends. Cambridge, Massachusetts: Harvard University Press, 1939.
- Robinson, Stanley C. "A Survey of the Status of Dictation Skills in a Business Community," The Balance Sheet, Vol. 22, No. 3 (November, 1940), 114-115, 135.
- Terry, George R. Office Management and Control. Chicago: Richard D. Irwin, Inc., 1949.
- Tonne, Herbert A. Business Education Basic Principles and Trends. New York: Gregg Publishing Co., 1939.

Principles of Business Education. 2d ed. New York:
McGraw-Hill Book Co., 1954.

Theses and Dissertations

- Cape, Billie Taylor. "An Occupational Opportunity Survey of Bristow, Oklahoma." Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1948. Pp. 77.
- Clevanger, Earl. "Employee Selection Practices, 1947." Unpublished Ed. D. dissertation, University of Oklahoma, Norman, 1947. Pp. 127.
- Fann, Lois Woods. "An Office and Sales Occupational Survey of Selected Businesses in North Kansas City, Missouri." Unpublished Master's thesis, University of Colorado, 1951. Pp. 98.
- Finkelhor, Dorothy C. "Occupational Adjustments of Beginning Office Workers." Unpublished Ph. D. dissertation, University of Pittsburgh, Pittsburgh, Pennsylvania, 1941. Pp. 189.
- Gibbons, Sister Eileen Marie. "Factors that Make for Success in Office Positions as Reported by Office Managers." Unpublished Master's thesis, University of Nebraska, 1949. Pp. 94.
- Holcomb, Kleimen Levi. "A Business Occupational Survey of Stillwater, Oklahoma." Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941. Pp. 85.
- Hudzietz, Dorthie Geraldine. "An Occupational Study of the Joliet Employment Area Based upon 48 Representative Firms." Unpublished Master's thesis, Northwestern University, Evanston, 1946. Pp. 69.
- Kerr, Mabel E. "A Study of the Duties of Office Workers in Terre Haute, Indiana." Unpublished Master's thesis, Indiana State Teachers College, Terre Haute, 1933. Pp. 127.
- Lauderdale, Frances. "The Levels of Skills of Specialized Clerical Employees." Unpublished Ed. D. dissertation, University of Oklahoma, Norman, 1951. Pp. 232.
- Liles, Alton B. Parker. "Some Factors in the Training of Clerical Workers." Unpublished Ph. D. dissertation, University of Kentucky, 1947. Pp. 200.
- Martin, Alfreda Bernetta. "Desirable Skills and Traits of Office Workers as Determined by Corvallis Businessmen." Unpublished Master's thesis, Oregon State College, Corvallis, 1947. Pp. 66.

- McGill, Esby Clifton. "A Business Occupational Survey of Stillwater, Oklahoma." Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941. Pp. 98.
- Morgan, Jo. "A Business Occupational Survey of Stillwater, Oklahoma." Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941. Pp. 82.
- Orem, Elizabeth Bryant. "Business Office Survey of Representative Portland Firms." Unpublished Master's thesis, Oregon State College, Corvallis, 1952. Pp. 141.
- Parker, Bernice B. "A Study of Office Employment Opportunities in the City of McAlester, Oklahoma, During the Year 1947." Unpublished Master's thesis, University of Oklahoma, Norman, 1948. Pp. 64.
- Silverthorn, James Edwin. "Business Occupational Opportunity Survey." Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1941. Pp. 55.
- Steinle, Sam. "Business Occupational Opportunity Survey of Seminole, Oklahoma." Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1948. Pp. 66.
- Traxler, Bina Mae. "A Follow-up Study of Commercial Graduates." Unpublished Master's thesis, Northwestern University, Evanston, 1930. Pp. 110.
- Van Derveer, Elizabeth A. T. "A Study of Patterns of Performance for the Most Frequent Duties of Beginning Clerical Employees." Unpublished Ed. D. dissertation, New York University, 1951. Pp. 311.

Miscellaneous Reports

- Board of Public Education, Pittsburgh, Pennsylvania. Survey of Office Duties and Employer Recommendations for Improved High School Training. Curriculum Study and Educational Research Bulletin, Vol. XXIII, No. 1, 1948. Pp. 43.
- Chamber of Commerce. Report of Committee on Commercial Education. Boston, Massachusetts: Boston Chamber of Commerce, 1914. Pp. 35.
- Chamber of Commerce. Survey of Needs in Commercial Education. Rochester, New York: Rochester Chamber of Commerce, 1915. Pp. 18.

- Commercial Curriculum Committee, New Castle Public Schools. "A Study in Adjusting the High School Commercial Curriculum to the Needs of the Community." New Castle, Pennsylvania, 1929. Pp. 29 (mimeographed).
- Forkner, Hamden L. "Curriculum Planning in Business Education," Eighth Annual Delta Pi Epsilon Lecture. Cincinnati: South-Western Publishing Co., April, 1950. Pp. 27.
- Gaumnitz, Walter H., and Tompkins, Ellsworth. Holding Power and Size of High Schools, Federal Security Agency, Circular No. 322. Washington: Government Printing Office, 1950. Pp. 25.
- National Office Management Association. Education for Business. A Report Prepared by the Toronto Chapter of the National Office Management Association. Toronto, Canada: National Office Management Association, 1944. Pp. 22.
- _____. Business Education--The Door to the New Frontier. A Report Prepared by the Seattle Chapter of the National Office Management Association. Seattle, Washington: National Office Management Association, 1946. Pp. 37.
- _____. Business and the Schools. Summary of a Survey Prepared by the Yakima Valley Chapter of the National Office Management Association. Yakima, Washington: National Office Management Association, 1949. Pp. 47.
- _____. Facts About NOMA. Bulletin. Philadelphia: Eleventh Hour Service, Inc., 1950. Pp. 10.
- _____. A Survey of Vocational Requirements for Certain Beginning Jobs in Offices. Summary of a Survey Prepared by the National Vocational Requirements Committee. Philadelphia: National Office Management Association, 1950. Pp. 15.
- United States Bureau of the Census. United States Census of Population: 1950, Vol. 1, Number of Inhabitants. Washington: Government Printing Office, 1952.
- United States Bureau of Labor Statistics. Salaries of Office Workers in Oklahoma City. Bulletin No. 989. Washington: Government Printing Office, 1950.
- United States Government, War Manpower Commission, United States Employment Service, Division of Occupational Analysis. Dictionary of Occupational Titles, Part IV, Entry Occupational Classification. Washington: Government Printing Office, 1944.

Vocational Rehabilitation for Civilians. Pamphlet. Federal Security Agency, Office of Vocational Rehabilitation. Washington, D. C. Pp. 27.

Walters, R. G. "The Community Survey," Monograph 58. Cincinnati: South-Western Publishing Co. (December, 1942). Pp. 38.

APPENDIX A

Questionnaire Utilized in This Study

NATIONAL OFFICE MANAGEMENT ASSOCIATION EDUCATIONAL & EMPLOYMENT SURVEY

WHY A SURVEY?

1. Any educational program, to be effective, must have a purpose. That purpose must be based on facts. Facts can be obtained only by research.
2. Our Oklahoma City educational program, for secondary schools especially, has a dire need for an overhauling. Our Board of Education and instructors want to teach students the courses which will qualify them best toward attaining their ambitions.
3. Business men should know best what should be taught in the commercial field.

PURPOSE OF SURVEY

1. To obtain facts and suggestions from employers which will be extremely valuable to our schools in developing an appropriate program of vocational education.
2. To give employers access to a greater number of adequately trained applicants.

CONTENTS OF SURVEY

1. Opportunities and entrance requirements for beginning office workers.
2. Deficiencies in traits of beginning office workers.
3. Deficiencies in knowledges and abilities of office workers.
4. Deficiencies in the abilities of beginning stenographers.
5. Deficiencies in the abilities of beginning typists.
6. Type and age of office equipment used by employers.
7. Duties of employees under various job classifications.

OBJECTIVE OF SURVEY

1. To assemble and tabulate the information by codes.
2. To furnish this information to all schools in the Oklahoma City Area, that they may improve their curricula for pre-employment education; curricula for post employment education for those who cannot enter college; and curricula that will have adequate prerequisites for those who expect to enter college and study office management.
3. To furnish employers who participate, with the final results (IN CODES ONLY).

EMPLOYER INFORMATION FORM

Please give us some information about your office.

Note--The numbers placed throughout the questionnaire are for the coding clerk's information only.

NAME OF YOUR COMPANY _____ ¹⁻⁴ Code _____ Date _____

Type of business reporting (check only one)

- Adv., Prtg. Publ. _____ 6 Electric Mfg. _____ 11 Petrol. Prod. _____ 16 Service _____
- Banking, Ins. & Finance _____ 7 Food, Tob. & Drugs _____ 12 Text. & Leather _____ 17 Transport _____
- Construction _____ 8 Heavy Mach'y _____ 13 Government _____ 18 Wholesale _____
- Education _____ 9 Lt. Mach'y. & Metals _____ 14 Public Util. _____ 19 Other _____
- Autos (Mfg. & Svc.) _____ 10 Lumber - Paper _____ 15 Retail _____ 20 (describe) _____

OPPORTUNITIES AND ENTRANCE REQUIREMENTS FOR BEGINNING OFFICE WORKERS

Indicate with a what you feel is the MINIMUM education requirements desired for each type of position, assuming that all have had adequate commercial training courses.

TYPE OF POSITION (for job definitions, see pages 4 and 5)	MINIMUM EDUCATION DESIRED					In rank order (1-5) indicate in this column the 5 most difficult positions to fill 5-9
	High School		Beyond High School			
	0 Non-grad	1 Grad	2 1 yr	3 2 yr	4 more	
7 Stenographer A						
8 Stenographer B						
9 Secretary - Private						
10 Secretary - Stenographer						
11 File Clerk						
12 General Clerk A						
13 General Clerk B						
14 Messenger - Mail Clerk						
15 Typist A						
16 Typist B						
17 Accounting Clerk A						
18 Accounting Clerk B						
19 Payroll Clerk						
20 Transcribing Machine Operator						
21 Calculating Machine Operator						
22 Tabulating Machine Operator						
23 Key - Punch Machine Operator						
24 Telephone Operator						

25 COMMENTS:

26 Do you give entrance tests to prospective employees? 1 Yes _____ 2 No _____

27 If so, check the type of test given and the minimum requirements, etc., in each:

- 1 Typing from straight copy _____ 28-30 Minimum requirement _____ Words Per Minute
- 2 Taking dictation _____ 31-33 Minimum requirement _____ Words Per Minute
- 3 Typing arrangement (letters, etc.) _____ 34-36 Minimum requirement _____ Percentile
- 4 Transcribing dictation _____ 37-39 Minimum requirement _____ Words Per Minute
- 5 Clerical aptitude test _____ 40 Kind _____
- 6 Others (list and give requirements) _____

41 COMMENTS:

Which of the following are most important in determining your final selection of beginning office employees? Give the rank "1" to the most important, "2" to the second most important, etc.

- 42 Application blank _____ 44 Personal interview _____ 46 Performance on entrance tests _____
- 43 References (Business) _____ 45 Teacher's recommendation _____ 47 School record _____

Do you employ physically handicapped people? _____ for what type job? _____

Will you cooperate with the public schools by employing part-time students who can get credit as well as earn while they learn? _____

DEFICIENCIES OF BEGINNING OFFICE WORKERS

On each list below indicate FIVE traits, knowledges or abilities in which beginning office personnel are deficient. Rate in 1,2,3,4,5 order, No. 1 being the deficiency occurring most frequently.

57 TRAITS OF BEGINNING OFFICE WORKERS	
1	Accuracy
2	Adaptability
3	Aggressiveness
4	Attendance
5	Cheerfulness
6	Co-operativeness
7	Courtesy
8	Dependability
9	Emotional Stability
10	Initiative
11	Interest In Work
12	Neatness In Work
13	Perserverance
14	Personal Appearance (grooming)
15	Punctuality
16	Willingness To Assume Responsibility
17	Willingness To Perform Unpleasant Tasks
18	Others

58-67 KNOWLEDGES & ABILITIES OF BEGINNING OFFICE WORKERS	
1	Arithmetic Fundamentals
2	Bookkeeping And Accounting
3	English
4	Following Directions
5	General Business Understanding
6	Logical Thinking, Clearly Stated
7	Penmanship
8	Pleasant Speech
9	Reading
10	Spelling
11	Use and Understanding Of Common Bus. Forms
12	Vocabulary
13	Others

Card 2

77 ABILITIES OF BEGINNING STENOGRAPHERS	
1	Speed In Taking Dictation
2	Ability To Read Back Shorthand Notes
3	Ability To Transcribe Accurately
4	Ability To Transcribe Rapidly
5	Ability To Type Well
6	Ability To Discover Typing Errors
7	Letter Arrangement
8	Spelling
9	Punctuation
10	Knowledge Of English
11	Ability To Compose A Letter
12	Total Production
13	Others

7-16 ABILITIES OF BEGINNING TYPISTS	
1	Accuracy
2	Arrangement Of Typed Material
3	Care Of Typewriter
4	Careful Erasing and Correcting Of Copy
5	Handling Of Paper And Carbons
6	Numbers
7	Proofreading
8	Tabulation
9	Spelling
10	Typing From Rough Draft
11	Speed
12	Total Production
13	Punctuation
14	Others

COMMENTS:

EQUIPMENT SURVEY

How many machines listed below are used in your firm and what is the age of the present equipment?

	1-5 yr	6-10 yr	11 yrs or over
17-22	Billing Machines		
23-28	Electric Typewriters		
29-34	Full - Bank Adding Machines		
35-40	Ten - Key Adding Machines		
41-46	Stencil Duplicating Machines		
47-52	Liquid Process Duplicating Machines		
53-58	Gelatin Duplicating Machines		
59-64	Key - driven Calculators (comptometers)		
65-70	Rotary Calculators (e.g. Friden, Marchant, Monroe)		
71-76	Voice Transcription Machines (dictating machines)		
7-12	Offset Duplicating Machines		
13-18	Posting Machines (no typewriter keyboard)		
19-24	Bookkeeping Machines (typewriter keyboard)		
25-30	Bookkeeping Machines (full - bank)		
31-36	Bookkeeping Machines (ten - key)		
37-42	Punch Card Machines		
43-48	P B X		
49-54	Others		

Indicate in this space specific recommendations you would make to schools for improvement of business education. Please make any comments you wish on any problem not covered herein. Use back of page if necessary.

55

IMPORTANT
 Check below, the duties considered important for beginners in each classification.

STENOGRAPHIC				GENERAL CLERICAL						RECORD KG			MACHINE OP				**	
7 12	13 18	19 24	25 30	31 36	37 42	43 48	49 54	55 60	61 66	67 72	73 78	7	13 18	19 24	25 30	31 36	37 42	43 45

Stenographer A	Stenographer B	Secretary - Priv	Secy - Steno	File Clerk	General Clk A	General Clk B	Msgr - Mail Clk	Typist A	Typist B	Acctg Clk A	Acctg Clk B	Payroll Clk	Transcribing	Calculating	Tabulating	Key-punch	Telephone	Other
----------------	----------------	------------------	--------------	------------	---------------	---------------	-----------------	----------	----------	-------------	-------------	-------------	--------------	-------------	------------	-----------	-----------	-------

*T O T A L S

0	Use Filing System or Systems																		
1	Receive Business Callers																		
2	Transcribe Legal Reports																		
3	Personal Services for Employer																		
4	Make Travel Arrangements																		
5	Copy From Rough Draft or Corrected Copy on Typewriter																		
6	Prepare Master Copy for Use on Duplicating Machines																		
7	Take Dictation in Shorthand and Transcribe Correspondence																		
8	Compose and Type Letters with or without Instruction																		
9	Examine and/or Sort Business Papers																		
0	Open, Sort, and Distribute Mail																		
1	Obtain Credit Ratings																		
2	Write Orders																		
3	Type Statistical Material																		
4	Make Entries in Ledger Accounts																		
5	Prepare Operating and/or Financial Statements																		
6	Make Journal Entries																		
7	Prepare Checks																		
8	Prepare Pay Rolls																		
9	Balance Cash Periodically																		
0	Prepare Insurance and Social Security Records																		
1	Use Adding Machine (Full-Bank)																		
2	Use Adding Machine (10-Key)																		
3	Use Calculating Machine																		
4	Calculate and Extend Reports																		
5	Use Machine Transcriber																		
6	Use Bookkeeping Machine																		
7	Operate Telephone Switchboard																		
8	Use Billing Machine																		
9	Use Vari-Typer																		

* T O T A L number of employees in each classification (this does not refer to checks in the columns)
 ** This means number of office employees not included above, as cashier, receptionist, stock records clerk, etc.

*JOB TITLES & DESCRIPTIONS

Please keep these qualifications in mind when using these job titles and descriptions

1. Determine the principal and primary characteristic or characteristics of each job you plan to report--then locate them in one of the 18 jobs described below.
 2. If these characteristics cannot be located for any one job, do not report it.
 3. Omit reporting an employee who normally is considered a supervisor or who draws higher pay due to responsibilities not usually assumed in the job listed.
 4. Do not report part-time employees.
 5. Exclude trainees.
1. **STENOGRAPHER - A (SENIOR)**
Records and transcribes dictation of more than average difficulty by use of shorthand and/or transcribing machine. Requires knowledge of proper letter forms and complicated set-ups. Must be familiar with company organization and routines. May perform related clerical duties. Works under general supervision, but must use judgement. May work in a stenographic pool.
 2. **STENOGRAPHER - B (JUNIOR)**
Takes and transcribes from shorthand notes or from dictating machine, routine dictation involving generally used business terms and expressions. Must have general knowledge of company routines and set-ups. May type requisitions, orders, schedules, checks. May work in a stenographic pool under direct supervision.
 3. **SECRETARY - PRIVATE**
Fully qualified stenographer to senior executive (s). Performs work of a confidential and technical nature. Takes dictation by shorthand and/or transcribing machine. Schedules appointments. Handles telephone calls. Has thorough knowledge required of routines, personnel, functions, and policies to relieve executive (s) of minor duties.
 4. **SECRETARY - STENOGRAPHER**
Performs secretarial duties for one or more executives. Takes dictation by shorthand and/or transcribing machine. May be required to be versed in the technical language of a particular business. Relieves executives served of minor office details and duties.
 5. **FILE CLERK**
Systematically classifies, indexes and files correspondence, cards, invoices, receipts and other records; locates and removes material from file on request. May keep a record of material removed.
 6. **GENERAL CLERK - (SENIOR)**
Performs routine clerical duties under supervision such as compiling or posting data or records or performing similar work of average difficulty. Requires some experience and the ability to complete assignment with a minimum of difficulty.
 7. **GENERAL CLERK - B (JUNIOR)**
Performs duties of simple or repetitive nature such as sorting, posting, checking, copying and addressing envelopes. Duties performed require little previous experience and a minimum of judgment.
 8. **MESSENGER - MAIL CLERK**
Processes incoming and outgoing mail. May perform a variety of related duties such as distributing and collecting letters, messages, packages, documents, records, inter-office memoranda and other items in offices and departments within an establishment. May operate a letter-opening machine, a stamping machine, a sealing machine and perform other minor office duties.
 9. **TYPIST - A (SENIOR)**
Does general typing requiring the exercise of judgment and assumption of responsibility in carrying out assignments, involving statistical, rough draft material, copying of technical or unusual business correspondence of other materials. Make out stencils. Must be accurate, with ability to lay out and arrange work. Dictation not required.
 10. **TYPIST - B (JUNIOR)**
Does typing of simple, routine nature, copying from plain printed or written material, correcting copy of simple form letters, reports, charts; may cut stencils and address envelopes. Able to type accurately with fair speed. Dictation not required.

Job Titles & Descriptions - Cont'd.

11. **ACCOUNTING CLERK - A (SENIOR BOOKKEEPER)**
Keeps a complete and systematic set of accounting records. Examines and records the transactions in proper record books, journalizing transactions where judgment must be used as to accounts affected. Balances books and compiles reports at regular intervals.
 12. **ACCOUNTING CLERK - B (JUNIOR BOOKKEEPER)**
Keeps a record of and works with less than a complete set of accounting records. May perform the more routine calculating and posting duties necessary in accounting; verifying the company bank account, keeping files of records; preparing invoices or monthly customers statements; posting to and balancing accounts receivable or accounts payable sections; taking trial balances.
 13. **PAYROLL CLERK**
Computes wages of company employees and writes the proper data on payroll sheet - calculates each worker's earnings based on timekeeper's report, individual time cards, and work or production tickets; posts calculated data on payroll sheet (such as name of worker, working days, time, rate, deductions and total wages due). May make out pay checks and assist paymaster in making up and distributing pay envelopes.
 14. **TRANSCRIBING MACHINE OPERATOR**
Transcribes the message, reproduced in sound, from a recording device on a transcribing machine. May type other supplementary information not recorded.
 15. **CALCULATING MACHINE OPERATOR**
Primarily occupied in operation of a machine that performs the arithmetic computations of adding, subtracting, multiplying, and dividing.
 16. **TABULATING MACHINE OPERATOR**
Operates a machine that automatically analyzes, makes calculations and translates or divides information represented by holes punched in groups of tabulating cards, and prints the translated data on form sheets, reports, special cards or accounting records. Sets or adjusts machine to add, subtract, multiply and make other calculations. May operate auxiliary machines.
 17. **KEY PUNCH MACHINE OPERATOR**
Records accounting and statistical data in tabulating-cards by punching a series of holes in specified sequence, using a key punch machine. May operate a verifying machine.
 18. **TELEPHONE OPERATOR**
Operates switchboard handling incoming, outgoing and intra-company calls. Keeps a record of distance calls; is responsible for checking telephone calls. May have incidental duties, such as receptionist. Requires a good knowledge of personnel of establishment; works communication system. May work paging and public address system and/or plant music player.
- * These classifications were used by the National Office Management Association in their recent national office salary survey.

APPENDIX B

List of the Business Enterprises in Oklahoma City
Included in This Study

BUSINESS ENTERPRISES IN OKLAHOMA CITY
INCLUDED IN THIS STUDY

Retail Trade

American Butane & Propane Gas Company
Andy Anderson Sport Goods Company
Anthony, C. R. Company
Barth Brothers Company, Incorporated
Beatrice Foods Company
Borden Company, The
Brown, John A. Company
Classen Cafeteria
Clyde's Grocery
Colonial Art Company
Connie's Prescription Shop, Incorporated
Coppock Music Company
Corsin Grocery
Crescent Market
Cullimore, James A. Furniture Company
Dailey's Credit Clothiers
Denison Motor Company, Incorporated
Downtown Chevrolet, Incorporated
Doyle, Bill Office Supply
Evans Company, Incorporated, The
Fretwell Motor Company
Fruehauf Trailer Company
Goodyear Service Stores
Goodyear Tire & Rubber Company, Incorporated
Grand Union Tea Company
Grant, W. T. Company
Green, H. L. Company, Incorporated
Greenlease-Moore Chevrolet, Incorporated
Hall Clothing
Halliburton's of Oklahoma
Harbour-Longmire
Hoover Company
House of Wren, The
Howard's Credit Clothing
Jenkins Music Company
Jewell Tea Company, Incorporated

Johnson's Food Market
Jones, Fred, Incorporated
Katz Drug Company
Katz, Harry, Incorporated
Kaybee Store
Langston Company
Langston Company
Lesters & Company Jewelry
Levine's Department Store
Lewinson & Son
May Brothers
McDonald-Scott Chevrolet Company
Mike Bryan Office Supplies
Montgomery Ward Company
O K Furniture & Rug Company
Oklahoma Tire & Supply Company
O'Mealey's Cafeteria
Penny, J. C. Company
Pettee, W. J. Company
Peyton-Marcus
Raskins Credit Jewelers, Incorporated
Roach Drug Company
Robert Hall, Incorporated
Roberts Drug Company
Rosenfield's Jewelers
Rothschild's B & M
Safeway Stores, Incorporated
Sears Roebuck & Company
Sneed Furniture Company
Sonotone of Oklahoma City
Standard Food Markets, Incorporated
Sturm Clothing Company
T G & Y Stores Company
Veazey Drug Company
Weber's Jewelry
Western Auto No. 1
Woolworth, F. W. & Company
Zale Jewelry Company

Finance, Insurance, and Real Estate

Allied Building Credits, Incorporated
American Association of Insurance Companies
Associates Discount Corporation
Bankers Investment Company
Braniff, T. E. Company
Central State Bank
Citizens State Bank
City National Bank & Trust Company

Coates Abstract Company
Continental Insurance Company
Ellis-Nicholson & Cramer, Incorporated
Empire Life Insurance Company
Employers Group Insurance Company
Equitable Life Insurance Company of Iowa
Farmers Insurance Exchange
Fears, Joe B. General Agency
Federal Reserve Branch Bank
Fidelity & Casualty Company of New York
First National Bank & Trust Company
First National Building Corporation
Fox, Fred F. Company
General Motors Acceptance Corporation
Givens, Roger Home Builder
Hartford Accident & Indemnity Company
Home Mortgage & Investment Company
Home State Life Insurance
Johnston & Company
Ledbetter Insurance Company
Liberty National Bank & Trust Company
Liberty Plan Company
Local Federal Savings & Loan Association
Mager Mortgage Company
Memorial Park Association
Metropolitan Life Insurance Company
Mid-Continent Life Insurance Company
National Fire Insurance Company
National Life & Accident Insurance Company
New York Life Insurance Company
Oklahoma Farm Bureau Mutual Insurance Company
Oklahoma Mortgage Company, Incorporated
Pacific Employers Insurance Company
Pacific Mutual Life Insurance Company
Penn Mutual Life Insurance Company
Personal Finance Company
Phoenix Mutual Life Insurance Company
Prudential Insurance Company
Security Federal Savings & Loan Association
Service Fire Insurance Company
Southwest Abstract Company
Standard Life & Accident Insurance Company
State Finance Company
Stockyards Bank
Universal C I T Credit Corporation
White, M. C. Agency

Wholesale Trade

Allied Materials Corporation
Allis-Chalmers Manufacturing Company
Black Sivalls & Bryson, Incorporated
Brittain Brothers
Burroughs Adding Machine Company
Cain's Coffee Company
Campbell Glass & Mirror Company
Capitol Distributors, Incorporated
Capitol Steel & Iron Company
Carpenter Paper Company
Collins Dietz Morris Company
Corken's, Incorporated
Davidson & Case Lumber Company
Dictaphone Corporation
Elledge-Meyer Supply Company
Federal Distributors, Incorporated
Fleming Company, Incorporated
Ford Motor Company
Fox Vliet Company
Frigidaire Sales Corporation
Gas & Electrical Equipment Company
General Electric Supply Company
General Foods Sales Division
Gordon, Samuel Company
Graham Paper Company
Hales-Mullaly Company
Hart Industrial Supply Company
Ideal Cement Company
International Business Machines Corporation
International Harvester Company
Jasper Sipes School Book Depository, Incorporated
Jones, Fred Manufacturing Company
Kobe, Incorporated
Lane-Wells Company
Leonhardt, H. E. Lumber Company
Long-Bell Lumber Company
Lynch, S. H. Company, Incorporated
Maxwell, Leo Company, Incorporated
McKesson & Robbins
Merritt Wholesale Company
Mideke Supply Company
Miller-Norris Company, Incorporated
Modern Distributors, Incorporated
Modern Tractor & Supply Company
Nash Finch Company
National Biscuit Company
National Cash Register Company
National Theatre Supply

Oklahoma City Hardware Company
Oklahoma Paint Distributing Company
Ozmun & Company
Pitney-Bowes, Incorporated
Pittsburgh Plate Glass Company
Remington Rand, Incorporated
Scrivner-Stevens Company
Southwest Machinery Company
Standard Roofing & Material Company
Sunshine Biscuits, Incorporated
Super-Cold Southwest Company
Underwood Corporation
Western Newspaper Union

Service Industries

Asplundh Tree Expert
Associated Press
Baptist General Convention
Billups Wood & Champlin
Blackwood-Davis Business College
Bone & Joint Hospital
Columbia Pictures Corporation
Coston & Frankfurt Architects
Credit Adjustment Company
Credit Service
Dunn & Bradstreet, Incorporated
Eagle Lion Films, Incorporated
Equitable Finance Company
Eureka Tool Company
Guernsey, C. H. & Company
Hertz Drivurself System, Incorporated
Hills Business University
Huckins Hotel
Hudgins-Thompson-Ball & Associates
Lain-Lamb-Jones Clinic
Monogram Distributing Corporation
Nolen-Moore Architects
Oklahoma Audit Bureau
Oklahoma City Chamber of Commerce
Oklahoma Education Association
Oklahoma State Medical Association
Paramount Film Distributing Corporation
R K O Radio Pictures
Republic Pictures Corporation
Schlumberger Well Surveying Corporation
Skirvin Hotels
Smith & Kernke
Sorey Hill & Sorey

Universal Film Exchange, Incorporated
W K Y Radiophone Company
Warner Brothers Pictures Distributing Corporation
Warner Brothers Theatres
Williams, T. Dwight Company
Wilson, C. C.
Wolf & Company

Manufacturing

Acme Brick Company
Acme Flour Mills Company
American Body & Trailer, Incorporated
American Iron & Machine Works Company
Armour & Company
Bond Lithographing-Printing Company
Carson Machinery & Supply Company
Colonial Baking Company
Douglas, H. Dorsey, Incorporated
Dulaney's Manufacturers & Distributors
Folding Carrier Corporation
General Baking Company
General Mills, Incorporated
L & S Bearing Company
Leader Press, Incorporated
Linde Air Products Company
Merit Mills, Incorporated
Metropolitan Paving Company
New State Ice Company
Oklahoma City Casket Company
Oklahoma Paper Company
Oklahoma Publishing Company
Oklahoma Sash & Door Company
Peppers Refining Company
Producers Co-Operative Oil Mill
Progress Brewing Company
Richards & Conover Hardware Company
Robberson Steel Company
Royal Baking Company
Semco Color Press
Sherman Machine & Iron Works
Southwestern Cotton Oil Company
Standard Engraving Company
Star Manufacturing Company
United Brick & Tile Company
Wilson & Company, Incorporated

Public Utilities

American Airlines, Incorporated
American District Telegraph Company
Braniff International Airways
Central Dairy Products Company
Cities Service Gas Company
Cities Service Oil Company
City Bus Company
Commercial Warehouse Company
Consolidated Gas Utilities Corporation
Hall, D. C. Transport, Incorporated
Jeffries, H. J. Truck Lines
Lee Way Motor Freight, Incorporated
Luper Transportation Company
Mid-Continent Coaches
Mistletoe Express Service, Incorporated
Oklahoma Gas & Electric Company
Oklahoma Natural Gas Company
Oklahoma Transportation Company, Incorporated
Southwestern Bell Telephone Company
Transcon Lines
Trans-Continental Freight Service
Wichita Forwarding Company

Mining

Anderson Prichard Oil Corporation
Ashland Oil Refining Company
Big Chief Drilling Company
Carter Oil Company
Davon Oil Corporation
Kerr-McGee Oil Industries, Incorporated
Magnolia Petroleum Company
Phillips Petroleum Company
Sohio Petroleum Company
Stanolind Oil & Gas Company
Stephens Petroleum Company
Sunray Oil Corporation
Superior Oil Company
Transit Corporation

Government-State and Federal

Oklahoma Commission for Crippled Children
Oklahoma Employment Security Commission
Oklahoma State Health Department
State Board of Affairs

State Board of Vocational Education
State Department of Public Welfare
State Personnel Board
Tinker Air Force Base
Veterans Administration
Veterans Administration Hospital

Contract Construction

Allied Steel Erection Service
Builders Construction Company
Dobbins Construction Company
Food Engineering Company
Harmon Construction Company
Lippert Brothers, Incorporated
Oklahoma Tile Company, Incorporated
Reinhart & Donovan Company
Trojan Construction Company
Western States Construction Company

APPENDIX C

Frequency with Which Selected Duties Are Performed
by Office Employees in 18 Occupational
Classifications in Oklahoma City

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE TYPIST B (JUNIOR) OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 965 Junior
Typists in 42 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Typewrite material from rough draft.	39	92.9
Filing	31	73.8
Typewrite statistical material	26	61.9
Prepare master copy for duplicating.	20	47.6
Typewrite orders	10	23.8
Operate full-bank adding listing machine	9	21.4
Operate ten-key adding listing machine	9	21.4
Operate telephone switchboard.	8	19.1
Examine and/or sort business papers.	7	16.7
Open, sort, and distribute mail.	7	16.7
Operate billing machine.	7	16.7
Prepare checks	7	16.7
Operate transcribing machine	6	14.3
Receive business callers	5	11.9
Balance cash periodically.	4	9.5
Compose and typewrite letters.	3	7.1
Obtain credit ratings.	3	7.1
Perform personal services for employer	3	7.1
Take dictation in shorthand and transcribe	3	7.1
Transcribe legal reports	3	7.1
Calculate and extend reports	2	4.8
Make entries in ledger accounts.	1	2.2
Make entries in journal.	1	2.2
Make travel arrangements	1	2.2
Operate calculating machine.	1	2.2
Operate Vari-Typer	1	2.2
Prepare pay rolls.	1	2.2
Operate bookkeeping machine.	0	0.0
Prepare insurance and social security records.	0	0.0
Prepare operating and/or financial statements.	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE TYPIST A (SENIOR) OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

<u>Duties as Performed by 423 Senior Typists in 73 Business Firms</u>	<u>Frequency</u>	<u>Per Cent</u>
Typewrite material from rough draft.	59	80.8
Typewrite statistical material	50	68.5
Filing	49	67.1
Prepare master copy for duplicating.	41	56.2
Examine and/or sort business papers.	18	24.7
Typewrite orders	18	24.7
Operate ten-key adding listing machine	17	23.3
Operate telephone switchboard.	16	21.9
Compose and typewrite letters.	14	19.2
Prepare checks	14	19.2
Operate full-bank adding listing machine	13	17.8
Operate transcribing machine	13	17.8
Open, sort, and distribute mail.	11	15.1
Operate billing machine.	11	15.1
Receive business callers	11	15.1
Obtain credit ratings.	8	11.0
Take dictation in shorthand and transcribe	8	11.0
Transcribe legal reports	8	11.0
Calculate and extend reports	6	8.2
Operate calculating machine.	6	8.2
Perform personal services for employer	6	8.2
Make entries in ledger accounts.	5	6.9
Make entries in journal.	4	5.5
Operate bookkeeping machine.	4	5.5
Operate Vari-Typer	4	5.5
Balance cash periodically.	3	4.1
Make travel arrangements	2	2.7
Prepare operating and/or financial statements.	2	2.7
Prepare pay rolls.	2	2.7
Prepare insurance and social security records.	1	1.4

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE STENOGRAPHER B (JUNIOR) OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

<u>Duties as Performed by 471 Junior Stenographers in 82 Business Firms</u>	<u>Frequency</u>	<u>Per Cent</u>
Take dictation in shorthand and transcribe	82	100.0
Filing	68	82.9
Typewrite material from rough draft.	64	78.1
Prepare master copy for duplicating.	42	51.2
Typewrite statistical material	42	51.2
Open, sort, and distribute mail.	34	41.5
Compose and typewrite letters.	31	37.8
Receive business callers	28	34.1
Examine and/or sort business papers.	24	29.3
Operate transcribing machine	24	29.3
Operate telephone switchboard.	20	24.4
Typewrite orders	20	24.4
Operate ten-key adding listing machine	17	20.7
Operate full-bank adding listing machine	16	19.5
Obtain credit ratings.	14	17.1
Perform personal services for employer	12	14.6
Transcribe legal reports	12	14.6
Operate calculating machine.	10	12.2
Prepare checks	9	11.0
Make travel arrangements	7	8.5
Balance cash periodically.	2	2.4
Calculate and extend reports	2	2.4
Make entries in ledger accounts.	2	2.4
Operate billing machine.	2	2.4
Operate Vari-Typer	2	2.4
Prepare pay rolls.	2	2.4
Make entries in journal.	1	1.2
Operate bookkeeping machine.	0	0.0
Prepare insurance and social security records. . .	0	0.0
Prepare operating and/or financial statements. . .	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE STENOGRAPHER A (SENIOR) OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 578 Senior
Stenographers in 146 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Take dictation in shorthand and transcribe	146	100.0
Filing	114	78.1
Typewrite material from rough draft.	103	70.6
Compose and typewrite letters.	92	63.0
Typewrite statistical material	81	55.5
Prepare master copy for duplicating.	78	53.4
Examine and/or sort business papers.	69	47.3
Receive business callers	69	47.3
Open, sort, and distribute mail.	61	41.8
Transcribe legal reports	49	33.6
Operate transcribing machine	48	32.9
Perform personal services for employer	48	32.9
Operate ten-key adding listing machine	42	28.8
Operate full-bank adding listing machine	38	26.0
Make travel arrangements	32	21.9
Typewrite orders	29	19.9
Operate telephone switchboard.	27	18.5
Obtain credit ratings.	23	15.7
Prepare checks	21	14.4
Operate calculating machine.	20	13.7
Calculate and extend reports	15	10.3
Prepare pay rolls.	15	10.3
Make entries in ledger accounts.	14	9.6
Prepare operating and/or financial statements.	13	8.9
Make entries in journal.	12	8.2
Balance cash periodically.	11	7.5
Prepare insurance and social security records.	10	6.8
Operate billing machine.	7	4.8
Operate Vari-Typer	7	4.8
Operate bookkeeping machine.	6	4.1

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE SECRETARY-STENOGRAPHER OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 276 Secretary-
Stenographers in 99 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Take dictation in shorthand and transcribe	99	100.0
Filing	86	86.9
Compose and typewrite letters.	77	77.8
Receive business callers	76	76.8
Typewrite material from rough draft.	71	71.7
Examine and/or sort business papers.	63	63.8
Open, sort, and distribute mail.	59	59.6
Make travel arrangements	54	54.5
Typewrite statistical material	53	53.5
Perform personal services for employer	49	49.5
Prepare master copy for duplicating.	47	47.5
Transcribe legal reports	33	33.3
Operate transcribing machine	32	32.5
Operate ten-key adding listing machine	30	30.3
Obtain credit ratings.	26	26.3
Typewrite orders	25	25.2
Prepare checks	24	24.2
Operate full-bank adding listing machine	23	23.2
Operate calculating machine.	15	15.1
Operate telephone switchboard.	15	15.1
Balance cash periodically.	12	12.1
Prepare pay rolls.	12	12.1
Calculate and extend reports	10	10.1
Prepare insurance and social security records.	8	8.1
Make entries in journal.	6	6.1
Operate Vari-Typer	6	6.1
Prepare operating and/or financial statements.	5	5.0
Make entries in ledger accounts.	4	4.0
Operate billing machine.	2	2.0
Operate bookkeeping machine.	1	1.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE PRIVATE SECRETARY OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 207 Private
Secretaries in 94 Business Firms

Frequency Per Cent

Take dictation in shorthand and transcribe	94	100.0
Compose and typewrite letters.	86	91.5
Receive business callers	82	87.2
Examine and/or sort business papers.	79	84.0
Typewrite material from rough draft.	79	84.0
Perform personal services for employer	77	81.9
Make travel arrangements	73	77.7
Open, sort, and distribute mail.	61	64.9
Filing	55	58.5
Transcribe legal reports	48	51.1
Typewrite statistical material	48	51.1
Prepare master copy for duplicating.	47	50.0
Obtain credit ratings.	33	35.1
Operate transcribing machine	29	30.9
Prepare checks	27	28.7
Operate full-bank adding listing machine	25	26.6
Typewrite orders	25	26.6
Operate ten-key adding listing machine	20	21.3
Calculate and extend reports	17	18.1
Operate calculating machine.	17	18.1
Prepare insurance and social security records. . .	17	18.1
Prepare pay rolls.	16	17.0
Make entries in ledger accounts.	14	14.9
Prepare operating and/or financial statements. . .	12	12.8
Balance cash periodically.	11	11.7
Operate telephone switchboard.	11	11.7
Make entries in journal.	8	8.5
Operate Vari-Typer	5	5.3
Operate bookkeeping machine.	2	2.1
Operate billing machine.	1	1.1

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE GENERAL CLERK B (JUNIOR) OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

<u>Duties as Performed by 756 Junior General Clerks in 52 Business Firms</u>	<u>Frequency</u>	<u>Per Cent</u>
Filing	52	100.0
Operate full-bank adding listing machine	37	71.2
Operate ten-key adding listing machine	34	65.4
Examine and/or sort business papers.	32	61.5
Operate calculating machine.	28	53.8
Calculate and extend reports	26	50.0
Open, sort, and distribute mail.	21	40.4
Make entries in ledger accounts.	20	38.5
Write orders	19	36.5
Operate billing machine.	15	28.8
Typewrite material from rough draft.	13	25.0
Make entries in journal.	12	23.1
Prepare master copy for duplicating.	11	21.1
Obtain credit ratings.	10	19.2
Typewrite statistical material	10	19.2
Receive business callers	9	17.3
Operate telephone switchboard.	8	15.4
Balance cash periodically.	7	13.5
Operate bookkeeping machine.	7	13.5
Prepare checks	7	13.5
Prepare insurance and social security records. . .	5	9.6
Operate transcribing machine	3	5.8
Perform personal services for employer	3	5.8
Prepare pay rolls.	3	5.8
Transcribe legal reports	3	5.8
Compose and typewrite letters.	2	3.9
Prepare operating and/or financial statements. . .	2	3.9
Make travel arrangements	1	1.9
Operate Vari-Typer	1	1.9
Take dictation in shorthand and transcribe	1	1.9

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE GENERAL CLERK A (SENIOR) OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 960 Senior General
Clerks in 98 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Filing	94	95.9
Operate ten-key adding listing machine	65	66.3
Operate full-bank adding listing machine	64	65.3
Examine and/or sort business papers.	56	57.1
Operate calculating machine.	53	54.1
Open, sort, and distribute mail.	44	44.9
Calculate and extend reports	43	43.9
Write orders	42	42.9
Make entries in ledger accounts.	35	35.7
Receive business callers	34	34.7
Make entries in journal.	31	31.6
Obtain credit ratings.	27	27.5
Prepare checks	27	27.5
Typewrite material from rough draft.	26	26.5
Typewrite statistical material	26	26.5
Balance cash periodically.	25	25.5
Operate billing machine.	17	17.3
Compose and typewrite letters.	16	16.3
Prepare insurance and social security records. . .	15	15.3
Prepare master copy for duplicating.	15	15.3
Prepare pay rolls.	15	15.3
Operate telephone switchboard.	13	13.3
Perform personal services for employer	13	13.3
Operate bookkeeping machine.	12	12.2
Prepare operating and/or financial statements. . .	10	10.2
Make travel arrangements	5	5.1
Take dictation in shorthand and transcribe	5	5.1
Operate transcribing machine	4	4.1
Transcribe legal reports	4	4.1
Operate Vari-Typer	1	1.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE FILE CLERK OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

<u>Duties as Performed by 274 File Clerks in 96 Business Firms</u>	<u>Frequency</u>	<u>Per Cent</u>
Filing	96	100.0
Examine and/or sort business papers.	40	41.7
Open, sort, and distribute mail.	34	35.4
Operate telephone switchboard.	14	14.6
Operate ten-key adding listing machine	13	13.5
Operate full-bank adding listing machine	12	12.5
Typewrite material from rough draft.	10	10.4
Typewrite statistical material	8	8.3
Perform personal services for employer	7	7.3
Receive business callers	6	6.2
Write orders	6	6.2
Operate calculating machine.	5	5.2
Calculate and extend reports	4	4.2
Operate transcribing machine	4	4.2
Prepare master copy for duplicating.	4	4.2
Compose and typewrite letters.	3	3.1
Make entries in ledger accounts.	3	3.1
Take dictation in shorthand and transcribe	3	3.1
Make entries in journal.	2	2.1
Obtain credit ratings.	2	2.1
Operate billing machine.	2	2.1
Balance cash periodically.	1	1.0
Prepare checks	1	1.0
Transcribe legal reports	1	1.0
Make travel arrangements	0	0.0
Operate bookkeeping machine.	0	0.0
Operate Vari-Typer	0	0.0
Prepare insurance and social security records.	0	0.0
Prepare operating and/or financial statements.	0	0.0
Prepare pay rolls.	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE ACCOUNTING CLERK B (JUNIOR)
OCCUPATIONAL CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 406 Junior Accounting
Clerks in 90 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Make entries in ledger accounts	82	91.1
Make entries in journal	67	74.4
Operate full-bank adding listing machine.	65	72.2
Operate ten-key adding listing machine.	64	71.1
Balance cash periodically	63	70.0
Operate calculating machine	56	62.2
Calculate and extend reports.	54	60.0
Prepare checks.	47	52.2
Filing.	44	48.9
Operate bookkeeping machine	38	42.2
Prepare insurance and social security records	37	41.1
Prepare pay rolls	35	38.9
Prepare operating and/or financial statements	33	36.7
Examine and/or sort business papers	25	27.8
Obtain credit ratings	19	21.1
Receive business callers.	17	18.9
Operate billing machine	14	15.6
Typewrite material from rough draft	14	15.6
Typewrite statistical material.	13	14.4
Write orders.	11	12.2
Open, sort, and distribute mail	10	11.1
Prepare master copy for duplicating	8	8.9
Compose and typewrite letters	7	7.8
Perform personal services for employer.	5	5.6
Transcribe legal reports.	4	4.4
Operate telephone switchboard	3	3.3
Operate transcribing machine.	3	3.3
Make travel arrangements.	2	2.2
Operate Vari-Typer.	2	2.2
Take dictation in shorthand and transcribe notes.	2	2.2

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE ACCOUNTING CLERK A (SENIOR)
OCCUPATIONAL CLASSIFICATION IN OKLAHOMA CITY

<u>Duties as Performed by 430 Senior Accounting Clerks in 121 Business Firms</u>	<u>Frequency</u>	<u>Per Cent</u>
Make entries in ledger accounts	108	89.3
Make entries in journal	103	85.1
Prepare operating and/or financial statements	96	79.3
Operate full-bank adding listing machine.	89	73.5
Balance cash periodically	83	68.6
Operate calculating machine	79	65.3
Operate ten-key adding listing machine.	79	65.3
Calculate and extend reports.	75	62.0
Prepare insurance and social security records	74	61.2
Prepare checks.	67	55.4
Prepare pay rolls	66	54.5
Filing.	58	48.9
Operate bookkeeping machine	51	42.1
Obtain credit ratings	33	27.3
Examine and/or sort business papers	30	24.8
Receive business callers.	28	23.1
Write orders.	22	18.2
Typewrite statistical material.	20	16.5
Operate billing machine	15	12.4
Open, sort, and distribute mail	13	10.7
Compose and typewrite letters	11	9.1
Typewrite material from rough draft	11	9.1
Perform personal services for employer.	10	8.3
Operate telephone switchboard	8	6.6
Operate transcribing machine.	6	5.0
Prepare master copy for duplicating	6	5.0
Make travel arrangements.	5	4.1
Take dictation in shorthand and transcribe notes.	4	3.3
Operate Vari-Typer.	2	1.6
Transcribe legal reports.	2	1.6

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE PAYROLL CLERK OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

<u>Duties as Performed by 204 Payroll Clerks in 78 Business Firms</u>	<u>Frequency</u>	<u>Per Cent</u>
Prepare pay rolls	78	100.0
Prepare checks.	59	75.6
Prepare insurance and social security records . .	55	70.5
Operate calculating machine	49	62.8
Operate full-bank adding listing machine.	48	61.5
Operate ten-key adding listing machine.	44	56.4
Calculate and extend reports.	29	37.2
Filing.	28	35.9
Make entries in ledger accounts	24	30.8
Balance cash periodically	21	26.9
Make entries in journal	20	25.6
Operate bookkeeping machine	11	14.1
Prepare operating and/or financial statements . .	10	12.8
Examine and/or sort business papers	8	10.3
Receive business callers.	8	10.3
Typewrite statistical material.	8	10.3
Typewrite material from rough draft	6	7.7
Compose and typewrite letters	4	5.1
Open, sort, and distribute mail	4	5.1
Perform personal services for employer	4	5.1
Write orders.	4	5.1
Operate telephone switchboard	3	3.8
Obtain credit ratings	2	2.6
Operate billing machine	2	2.6
Prepare master copy for duplicating	2	2.6
Operate transcribing machine.	1	1.3
Operate Vari-Typer.	1	1.3
Take dictation in shorthand and transcribe. . . .	1	1.3
Transcribe legal reports.	1	1.3
Make travel arrangements.	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE CALCULATING MACHINE OPERATOR
OCCUPATIONAL CLASSIFICATION IN OKLAHOMA CITY

<u>Duties as Performed by 233 Calculating Machine Operators in 41 Business Firms</u>	<u>Frequency</u>	<u>Per Cent</u>
Operate calculating machine	41	100.0
Calculate and extend reports.	29	70.7
Operate full-bank adding listing machine.	20	48.8
Operate ten-key adding listing machine.	17	35.4
Filing.	11	26.8
Balance cash periodically	3	7.3
Make entries in ledger accounts	3	7.3
Prepare pay rolls	3	7.3
Typewrite statistical material.	3	7.3
Make entries in journal	2	4.9
Operate bookkeeping machine	2	4.9
Operate telephone switchboard	2	4.9
Prepare insurance and social security records	2	4.9
Examine and/or sort business papers	1	2.4
Operate billing machine	1	2.4
Operate transcribing machine.	1	2.4
Prepare operating and/or financial statements	1	2.4
Compose and typewrite letters	0	0.0
Make travel arrangements.	0	0.0
Obtain credit ratings	0	0.0
Open, sort, and distribute mail	0	0.0
Operate Vari-Typer.	0	0.0
Perform personal services for employer.	0	0.0
Prepare checks.	0	0.0
Prepare master copy for duplicating	0	0.0
Receive business callers.	0	0.0
Take dictation in shorthand and transcribe notes.	0	0.0
Transcribe legal reports.	0	0.0
Typewrite material from rough draft	0	0.0
Write orders.	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE TRANSCRIBING MACHINE OPERATOR
OCCUPATIONAL CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 47 Transcribing Machine
Operators in 16 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Operate transcribing machine	16	100.0
Filing	10	62.5
Typewrite material from rough draft.	9	56.2
Prepare master copy for duplicating.	8	50.0
Typewrite statistical material	5	31.2
Operate ten-key adding listing machine	4	25.0
Take dictation in shorthand and transcribe notes . .	4	25.0
Transcribe legal reports	4	25.0
Compose and typewrite letters.	3	18.8
Examine and/or sort business papers.	2	12.5
Operate bookkeeping machine.	2	12.5
Perform personal services for employer	2	12.5
Receive business callers	2	12.5
Calculate and extend reports	1	6.2
Obtain credit ratings.	1	6.2
Operate full-bank adding listing machine	1	6.2
Operate telephone switchboard.	1	6.2
Operate Vari-Typer	1	6.2
Balance cash periodically.	0	0.0
Open, sort, and distribute mail.	0	0.0
Make entries in ledger accounts.	0	0.0
Make entries in journal.	0	0.0
Make travel arrangements	0	0.0
Operate billing machine.	0	0.0
Operate calculating machine.	0	0.0
Prepare checks	0	0.0
Prepare insurance and social security records. . . .	0	0.0
Prepare operating and/or financial statements. . . .	0	0.0
Prepare pay rolls.	0	0.0
Write orders	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE TABULATING MACHINE OPERATOR
OCCUPATIONAL CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 266 Tabulating Machine
Operators in 24 Business Firms

Frequency Per Cent

Examine and/or sort business papers.	20	83.3
Operate calculating machine.	5	20.8
Filing	4	16.7
Operate full-bank adding listing machine	4	16.7
Operate ten-key adding listing machine	4	16.7
Calculate and extend reports	3	12.5
Make entries in journal.	1	4.2
Open, sort, and distribute mail.	1	4.2
Operate billing machine.	1	4.2
Operate bookkeeping machine.	1	4.2
Operate transcribing machine	1	4.2
Prepare checks	1	4.2
Prepare pay rolls.	1	4.2
Write orders	1	4.2
Balance cash periodically.	0	0.0
Compose and typewrite letters.	0	0.0
Make entries in ledger accounts.	0	0.0
Make travel arrangements	0	0.0
Obtain credit ratings.	0	0.0
Operate telephone switchboard.	0	0.0
Operate Vari-Typer	0	0.0
Perform personal services for employer	0	0.0
Prepare insurance and social security records.	0	0.0
Prepare master copy for duplicating.	0	0.0
Prepare operating and/or financial statements.	0	0.0
Receive business callers	0	0.0
Take dictation in shorthand and transcribe notes	0	0.0
Transcribe legal reports	0	0.0
Typewrite material from rough draft.	0	0.0
Typewrite statistical material	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE KEY-PUNCH MACHINE OPERATOR
OCCUPATIONAL CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 158 Key-Punch Machine
Operators in 6 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Operate ten-key adding listing machine	5	83.3
Filing	4	66.7
Operate full-bank adding listing machine	3	50.0
Calculate and extend reports	2	33.3
Examine and/or sort business papers.	2	33.3
Make entries in journal.	1	16.7
Operate calculating machine.	1	16.7
Operate telephone switchboard.	1	16.7
Operate Vari-Typer	1	16.7
Typewrite statistical material	1	16.7
Balance cash periodically.	0	0.0
Compose and typewrite letters.	0	0.0
Make entries in ledger accounts.	0	0.0
Make travel arrangements	0	0.0
Obtain credit ratings.	0	0.0
Open, sort, and distribute mail.	0	0.0
Operate billing machine.	0	0.0
Operate bookkeeping machine.	0	0.0
Operate transcribing machine	0	0.0
Perform personal services for employer	0	0.0
Prepare checks	0	0.0
Prepare insurance and social security records.	0	0.0
Prepare master copy for duplicating.	0	0.0
Prepare operating and/or financial statements.	0	0.0
Prepare pay rolls.	0	0.0
Receive business callers	0	0.0
Take dictation in shorthand and transcribe notes	0	0.0
Transcribe legal reports	0	0.0
Typewrite material from rough draft.	0	0.0
Write orders	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE TELEPHONE OPERATOR OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 888 Telephone
Operators in 89 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Operate telephone switchboard	89	100.0
Receive business callers.	64	71.9
Filing.	27	30.3
Make travel arrangements.	27	30.3
Open, sort, and distribute mail	25	28.7
Perform personal services for employer.	20	22.5
Typewrite material from rough draft	15	16.8
Typewrite statistical material.	11	12.4
Operate full-bank adding listing machine.	10	11.2
Operate ten-key adding listing machine.	10	11.2
Write orders.	10	11.2
Examine and/or sort business papers	9	10.1
Operate calculating machine	6	6.7
Prepare master copy for duplicating	5	5.6
Take dictation in shorthand and transcribe notes.	5	5.6
Obtain credit ratings	3	3.4
Operate billing machine	3	3.4
Calculate and extend reports.	2	2.2
Transcribe legal reports.	2	2.2
Make entries in ledger accounts	1	1.1
Make entries in journal	1	1.1
Operate bookkeeping machine	1	1.1
Operate transcribing machine.	1	1.1
Operate Vari-Typer.	1	1.1
Prepare checks.	1	1.1
Balance cash periodically	0	0.0
Compose and typewrite letters	0	0.0
Prepare insurance and social security records	0	0.0
Prepare operating and/or financial statements	0	0.0
Prepare pay rolls	0	0.0

FREQUENCY WITH WHICH 30 SELECTED DUTIES ARE PERFORMED BY
EMPLOYEES IN THE MESSENGER-MAIL CLERK OCCUPATIONAL
CLASSIFICATION IN OKLAHOMA CITY

Duties as Performed by 172 Messenger-Mail
Clerks in 45 Business Firms

	<u>Frequency</u>	<u>Per Cent</u>
Open, sort, and distribute mail	45	100.0
Filing	24	53.3
Examine and/or sort business papers	16	35.3
Perform personal services for employer.	14	31.1
Operate ten-key adding listing machine.	10	22.2
Operate full-bank adding listing machine.	9	20.0
Operate telephone switchboard	9	20.0
Receive business callers.	5	11.1
Write orders.	5	11.1
Operate calculating machine	3	6.7
Prepare checks.	3	6.7
Prepare master copy for duplicating	3	6.7
Calculate and extend reports.	2	4.4
Make travel arrangements.	2	4.4
Typewrite material from rough draft	2	4.4
Make entries in journal	1	2.2
Operate transcribing machine.	1	2.2
Prepare pay rolls	1	2.2
Transcribe legal reports.	1	2.2
Balance cash periodically	0	0.0
Compose and typewrite letters	0	0.0
Make entries in ledger accounts	0	0.0
Obtain credit ratings	0	0.0
Operate billing machine	0	0.0
Operate bookkeeping machine	0	0.0
Operate Vari-Typer.	0	0.0
Prepare insurance and social security records	0	0.0
Prepare operating and/or financial statements	0	0.0
Take dictation in shorthand and transcribe notes.	0	0.0
Typewrite statistical material.	0	0.0