The purposes of this study were to determine the curriculum needs of the secretarial science program at Hutchinson Community College. To help determine this, a questionnaire was sent to 100 randomly selected businesses in the Hutchinson, Kansas, area. Eighty-five questionnaires were returned. Some questions on the questionnaire were left unanswered, and many marked more than one response per question.

Summary

1. The majority of the businesses employed between 0 and 5 full-time clerical employees.

2. Opportunity for job advancement exists in the Hutchinson, Kansas, area for clerical/secretarial employees.
3. Fifty percent of the respondents indicated a willingness to provide part-time training positions.

4. Eighty-eight percent of the businesses used electric typewriters.

5. Typewriting skill of at least 50 WPM and shorthand skill of 80 WPM was the minimum speed required for initial employment.

6. Alphabetic and numeric filing methods were used most often.

7. Seventy-nine percent of the businesses indicated a knowledge of bookkeeping/accounting was necessary for clerical/secretarial employees.

Conclusions

1. The majority of graduates will be employed by small offices.

2. There are sufficient training positions available to secretarial science students in Hutchinson, Kansas.

3. Secretarial science students should prove a proficiency in typewriting of at least 50 WPM and 80 WPM in shorthand.

4. A knowledge of bookkeeping/accounting is necessary for secretarial science students.

Recommendations

1. Curriculum in the secretarial science program should include subjects in all clerical areas.
2. Instruction should continue to be given on automatic typewriters, ten-key and full-key adding machines, electronic printing and display, and printing calculators, transcribing machines, computers, and electric typewriters.

3. The content of the records management course should not include special coded methods.

4. A survey of businesses should be made periodically to keep the secretarial science program abreast of current community needs.

5. Further research is needed to assess more accurately the kinds of office machines used.

6. Further research is indicated to determine personality traits deemed desirable in clerical/secretarial employees.
A SURVEY OF 100 SELECTED BUSINESSES IN HUTCHINSON, KANSAS, TO EVALUATE THE SECRETARIAL SCIENCE PROGRAM AT HUTCHINSON COMMUNITY COLLEGE

A Thesis
Presented to
the Division of Business and Business Education
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of the Requirement for the Degree
Master of Science

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Chapter 1

INTRODUCTION

Office education teachers continue to be challenged with the responsibility of keeping abreast of changing employment demands and of affording students an opportunity to develop salable skills.¹

An effective office training program is continually changing to meet the needs of both the students and the community. Training students to compete in today's tight job market is quite different from training students five years ago.²

Business and industrial firms and public education agencies must work together to provide education and training for post-secondary students as well as adults--the employed and the unemployed.

Keeping students up to date in the office education area is important because large numbers of students will be

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directly involved in the office occupations.\textsuperscript{1} Approximately one out of every six people in the labor force today is involved in office work.\textsuperscript{2}

Perhaps the most important business approach from which educational leaders could profit is the requirement to start where a need \ldots exists.\textsuperscript{3} Whether temporary or permanent, curriculum changes should be based on definite knowledge of local community needs. Such definite knowledge can only result from some type of local survey; it cannot come from the mere personal opinions of either teachers or school officials.\textsuperscript{4}

\textbf{The Problem}

A survey of 100 selected businesses in Hutchinson, Kansas, was made to determine if the secretarial science program is meeting the needs of the Hutchinson, Kansas, business community.

\begin{itemize}
  
  \item \textsuperscript{2}Frank Nelson, "Developing Junior College Business Education Models," \textit{The Journal of Business Education}, XLIX (March, 1974), 246.
  
  \item \textsuperscript{3}Leonard L. Kilgore, "Adaptation of Business and Industrial Technology to Education," \textit{The Balance Sheet}, LVII (March, 1976), 266.
  
  \item \textsuperscript{4}R. G. Walters, \textit{The Community Survey}, Monograph 58, (Dallas: South-Western Publishing Co., 1943), 5.
\end{itemize}
Statement of the Problem

The purposes of this study were to determine the curriculum needs of the secretarial science program at Hutchinson Community College and to determine the skills necessary for students to obtain initial employment and job advancement.

This study was concerned with the following questions:

1. Do employers think there is a need for the secretarial science program at Hutchinson Community College?
2. Which firms would be willing to provide part-time training in their firms for community college students?
3. What kinds of office equipment are being used in the Hutchinson, Kansas, area?
4. What are the minimum skills required for initial employment? for advancement?
5. Are pre-employment tests administered to job applicants? What skills do these tests measure?
6. Is there a need for present employees to upgrade their skills?

Significance of the Study

To achieve accountability, curriculum planning must be completed by establishing the occupational market
available to students enrolling in the business classes offered at a given school.¹

Hennington stated that a comprehensive study should be made of the employment area served by the school district to establish the need for business education programs.² To every extent possible, education for business curriculums should be based upon empirical evidence of the current and projected needs of the community according to Walls.³ "This would require continuing studies of employment needs..."⁴

To serve the community well, a program of occupational education at the local level must be comprehensive in scope. This means that education must be inclusive in terms of occupations, in types of service, and in the group of people it reaches.

Most communities differ insofar as business activities are concerned. There are differences in kinds of business enterprises, in kinds of workers employed, in requirements for workers in the same occupations, in the

¹Nelson, op. cit.
²Hennington, op. cit., p. 87.
⁴Ibid.
equipment employees are required to use, in opportunities and requirements for advancement.¹

Walls also stated that provision should be made for continuous evaluation as a part of the maintenance, improvement, or restructuring of the curriculum. The development of specific performance objectives would be an essential part of this evaluation process.²

Because vocational education has goals that involve preparation for the world of work, from the beginning it has been found necessary to turn to those who represent the occupational world for advice and information concerning the nature and content of the program.³

The end result of a student completing the curriculum of a vocational program is normally immediate employment; and, therefore, information such as current and projected employment demand must be considered. Nelson stated, (sic) "This required continuing studies of employment needs through community surveys including written surveys, coordinator contacts, and advisory committees."⁴

¹Walters, op. cit.
²Walls, op. cit.
⁴Nelson, op. cit., p. 247.
Lansing Community College attributes much of the success of its programs to maintaining proper criteria for curriculum development as well as carrying out a continuing evaluation. One specific criteria mentioned was a survey of business, industry, and government agencies to determine present and future community employment needs.¹

**Delimitations of the Study**

This study was delimited to 100 businesses in the Hutchinson, Kansas, community.

**Definition of Terms**

The definitions given for the following terms will be used for the purpose of this study.

**Automated Word Processing**

Broadly, the automation of document production. Among other definitions: (1) An automated system designed to cut the cost and time of the originate/dictate, check/type/retype, sign/mail/distribute cycle of producing business documents. (2) The combination of people, procedures, and equipment that transforms ideas into printed communications and helps facilitate that flow of related office work.²

¹Walls, op. cit., p. 132.

Community College
A college typically set up to meet the educational needs of a particular community and offering 2-year training, either terminal or preparatory, in professional and liberal arts field.¹

Office Education
The in-school phase of instruction that is offered in conjunction with Cooperative Education. Office Education contains units of study that are directly related to the duties performed by a student on the job.²

Records Management
The practice of preventing unnecessary forms and reports from being established, destroying papers that are no longer necessary, and streamlining present records.³

Methods of Procedures
Four secretarial science instructors at Hutchinson Community College agreed there was a need to determine what minimum standards for skill subjects were being required in the business world to realistically set classroom standards

³Good, op. cit., p. 348.
for grading purposes. A knowledge of equipment being used by businesses was also desirable in equipping the class-
rooms.

A survey instrument was developed during the first summer session at Emporia State University, 1978. The questionnaire was reviewed by the two coordinators of the Hutchinson Community College Secretarial Science Program. With their suggestions, a revised questionnaire was developed and reviewed by six summer school students at Emporia State University and a graduate committee to test their understand-
ing of the form.

From the suggestions offered by the summer school students and the graduate committee, revisions were made and the revised instrument was field tested by personally inter-
viewing six business firms in Hutchinson, Kansas. Suggested revisions were made and the final survey instrument was duplicated. The letter of transmittal and follow-up letter were individually typed and addressed on a magnetic card IBM Selectric typewriter on Hutchinson Community College letterhead stationery.

Businesses listed in the Hutchinson, Kansas, City Directory were assigned a number and a table of random numbers was used to select 100 businesses to receive the questionnaire. The letter of transmittal (Appendix A) and questionnaire (Appendix A) were sent to the 100 representative businesses on July 10, 1978. Of the 100 forms mailed, 49, or 49 percent were returned. A post card (Appendix A) was sent
as a reminder for those not yet returned on August 1, 1978. Of the remaining 51 forms not returned, 17, or 33 percent returned the questionnaire.

On September 1, 1978, a follow-up letter (Appendix A) and another questionnaire were sent to those who had not responded. As a final total, 85 percent of the firms contacted returned the questionnaire.

Data from the questionnaires were tabulated and percentages calculated on the basis of the responses of all businesses. The tables in this study show the results of the data collected from the questionnaires.

The results as collected were used to evaluate the present secretarial science program and make recommendations for improvement of the curriculum.
Chapter 2

REVIEW OF RELATED LITERATURE

Much research has been done and articles have been written showing the need for office education and the need for competencies in specific areas. Chapter 2 contains an overview of the need for office education in the curriculum and the specific areas of study to be included in the program.

Overview of Office Education

The Bureau of Labor Statistics reports that many new clerical positions are expected to open as industries employing large numbers of clerical workers continue to expand. The Bureau predicts that the need for clerical workers as a group is expected to increase by almost two-fifths between 1972 and 1983.\(^1\) The anticipated increase in clerical workers is projected at one-third—an increase to more than 20 million by 1985.\(^2\)

\(^1\)Lorene Barnes Holmes, "Now is the Time for All Good Typewriting Teachers to Come to the Aid of Their Students," Business Education Forum, XXX (February, 1976), 16.

In 1972, the Bureau of Labor Statistics' estimate for typists alone was 1,021,000. Employment trends and prospects indicate a rapid employment growth with good opportunities for competent typists, especially those familiar with automatic typewriters.¹

In the United States, more than 15 million individuals are employed as clerical workers. They comprise the largest occupational group and are also identified as the fastest growing occupational group for the 10-year period ending in 1985.² Counting clerical jobs resulting from growth as well as replacements, over one and a half million new clerical workers will be needed each year.³ Moskovis stated that the percentage of office workers is growing faster than that of the total work force.⁴

Snow commented that, before the present time, social change came so slowly man did not really see it in his lifetime; now it swirls past so fast that one can't even imagine its implications on the future.⁵

¹Holmes, op. cit.
²Ibid.
Changing emphasis and concerns are more prevalent today than ever before. Business programs must prepare students for present-day jobs in a constantly changing job market.¹

Kingston stated planning and accountability must be provided and considered, such as:

1. Current and usable information that identifies and projects job market opportunities and needs in the labor market served by the district.

2. Job performance requirements that specify and update, as a basis for instruction, skills and knowledges required by each occupation in the program.²

The most important single factor in teaching office education is its dynamic nature. Educators must keep current with the major changes taking place in today's offices as well as plan for the office of the future in order to provide up-to-date preparation for students seeking office occupations.³

Trends in administrative services management, office technology, productivity, and personnel administration


provide challenges to the teaching responsibilities in office education.\(^1\)

Because there is an obligation to open doors of opportunities in office careers for students, a comprehensive office education course of study should be offered which permits students to obtain sufficient knowledge and preparation of vocational job skills for entry-level positions and to establish a commitment for advancement in a career.\(^2\)

Vocational skills acquired in the classroom are usually consistent with skills required in business and industry. Classroom tasks for vocational business and office subject matter are continuously validated by surveying the needs of the businesses.\(^3\)

The community survey provides information that can be used in curriculum planning. For example, the survey results can help a teacher decide whether to place more emphasis on one particular type of machine or to provide a broader background in office procedures.\(^4\)

Roman suggested the survey as the means for evaluating the program and modifying, if necessary, to keep the

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\(^1\)Ibid.

\(^2\)Ibid.


school programs abreast with changing pupil and societal needs.¹

In planning vocational matter, the typical practice is to identify the behaviors and tasks the adult performs on the job in business and industrial enterprises.² Numerous office education research studies follow this process of examining and validating subject matter in relation to the actual practices in the business office.³ If instruction is to be functionally related to occupational conditions, the need for some sources of current information is clear.

Changes in the traditional secretarial position have occurred as requirements of the job have been altered. In addition, the subject matter areas included in the program should be current and reflect changes occurring in the field.

Arbuckle stated the greatest challenge to business education today is to provide students with a knowledge and

²Porreca, op. cit.
³Ibid.
understanding of the functions of business in our society, how it operates, and how it performs.\(^1\)

While methodology and materials or equipment help make the subject matter areas understandable and interesting, it is the content of a course of study that is critical.\(^2\) The content of a secretarial course or curriculum should include knowledges and understandings of business and economic problems considered important by employers. Skills and abilities are needed to be able to perform satisfactorily the tasks of a specific position.

Business education curriculums must be oriented to the individual needs of the groups served and must provide for job entry at different levels.\(^3\) Vocational business education programs are designed to provide the competencies necessary to find employment in a particular field.\(^4\)

Moskovis stated that schools must continue to offer relevant programs which permit students to obtain entry-level jobs while arming them with sufficient knowledge and job commitment to allow for advancement.\(^5\)

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\(^2\)Powell, op. cit.

\(^3\)Walls, op. cit., p. 121.

\(^4\)Powell, op. cit.

\(^5\)Moskovis, op. cit., p. 4.
Standards of achievement are too often representative of the classroom rather than of the business office. Specific tasks to be performed . . . should be determined and minimum performance levels for these tasks need to be identified.¹ With changing job requirements, both educators and businesses have a job to do in helping young people qualify themselves.

Culmination of the program for the student would include a real world environment via the use of the simulation and, if at all possible, a well-supervised and coordinated cooperative program to provide on-the-job experience.²

Ginn, a businessman stated,

. . . I think that perhaps business training needs added emphasis on "real world" experiences versus "textbook" training alone. As business operations become more and more sophisticated and complex, business education simply must keep pace in the process to provide the most up-to-date training and guidance.³

As a result of high unemployment, the business educator must review the office training curriculum and reassess priorities.⁴ Even though the projected office jobs available will be increasing, business educators must emphasize that there will be competition in the job market.⁵

¹Nelson, op. cit., p. 247.
²Ibid., p. 246.
⁴Ganser, op. cit.
⁵Bangs, op. cit.
Graduates must, of course, possess marketable entry-level skills; but more importantly, students must be trained to advance in a much more competitive business world.¹

Teachers should demand work which meets the highest professional standards. Justification will not be sheer numbers, but the product developed for business.

New machines and equipment require new skills. Changing technology necessitates refinement in office procedures and administrations.² Machines will never replace the secretary, but the secretary must be familiar with all the office equipment on the market.³

Specific Areas of Study

There is strong support for each of the subjects and courses being offered in the present secretarial science program at Hutchinson Community College as evidenced from the following references.

Typewriting

Many tasks performed by clerical or secretarial employees include some kinds of typewriting. The recent

¹Ibid.

²Jalowsky and Frame, op. cit., p. 15.

trend shows that most of the offices are using electric typewriters.

Cook and Lanham cited a study done by Ober which found that nearly 95 percent of the work samples were typed on electric typewriters, about evenly divided between standard electrics and selectrics.¹

Shorthand

Business executives and business educators have been hearing periodically for more than 50 years that manual shorthand is on the way out. Predictions have been made that dictating machines will take over completely within the next few years. However, even large firms that use a centralized word processing system still have secretaries who write shorthand for their top executives. Many executives do not like the impersonality of a centralized system and find it difficult to make deletions and corrections in their dictation.² Also, employers find that stenographers who have had manual shorthand training frequently make the best transcribers.³


³Ibid.
Training on transcribing machines and in manual writing should be included in the curriculum so that stenographers will be capable of working efficiently in any type system, whether it be all machine dictation, all manual writing, or a combination of the two.¹

Even a secretary who usually takes shorthand dictation may use a machine when her employer wishes to dictate at home, after hours, or while on a business trip.²

With the advent of word processing systems, office equipment manufacturing companies have been aggressively promoting the idea that machine dictation must displace dictation given to a manual shorthand writer. The idea that an "either-or" situation exists in training stenographers cannot be accepted. Stenographic students need preparation for all input systems.³

In establishing the terminal objective of a stenographic program including shorthand and transcription, it is first necessary to establish those competencies needed by the learner in order to obtain employment in a business office.⁴

¹Ibid.


³Hampton, op. cit., p. 203.

The secretary or stenographer who handles correspondence in any office should be prepared to transcribe from a machine, as the use of recorded media is widespread in small offices as well as in large ones.  

Office Machines

Previously, office machines were thought to be those capable of doing mathematical computations only. In the emerging data processing society, business machines encompass a large array of equipment. Machines of interest in this study included typewriters, copying equipment, adding and calculating machines, and transcribing machines.

Modern business is demanding that larger quantities of printed information be duplicated or reproduced in the "in-plant printing center." Therefore, education must provide the office reprographic skills necessary for entry-level employment in such areas as (1) fluid process, (2) stencil duplicating, (3) offset press, (4) special and automatic typewriters, and (5) office copier.

To provide training on those machines most representative of current business usage, the business educator must survey business firms. The survey provides the school or school system with information on which to

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1 Meyer, op. cit.

base decisions about selecting, discarding, or replacing equipment.\textsuperscript{1}

Computers

Businesses and teachers are experiencing a phenomenon within a lifetime: the origin and development of a new industry--the computer--and its attendant technology. And, as the industry produces new tools and mechanisms, training programs and facilities must follow: education, training, retraining, and upgrading the skills, knowledge and techniques of the employment force.\textsuperscript{2}

At first, computers were too expensive for general use; but during the past ten years, costs have dropped, speed of operation has increased, and memory units have been expanded.\textsuperscript{3} The reduction in size and cost has made computer usage an integral part of business today and more businesses are including them in their operations. The computer has not replaced office workers as earlier prophesied, but it has created a vast volume of paper work and increased the demand for clerical workers.\textsuperscript{4}

With the wide scope of applications available through the use of a minicomputer that can fit the budget of almost

\textsuperscript{1}Thomas and Busher, op. cit.
\textsuperscript{3}Bangs, op. cit., p. 8.
\textsuperscript{4}Hennington, op. cit., p. 102.
every business firm, there is little doubt that minicomputer systems will have a profound impact on the American business scene.¹

Technical Clerical Positions

Anyone interested in becoming a technical secretary will find opportunities in electronics, synthetics, aerospace, and communications industries as well as in construction firms and architectural businesses.² Frequently, these secretaries serve as administrative assistants, since scientists and engineers are known to dislike office routine, preferring to spend more of their time in the laboratory.³ The technical secretary also needs to have skill in typing numbers, formulas, and statistical tabulations; and a proficiency in mathematics is helpful.⁴

Secretaries must be familiar with "corporate" language. Great stress has been on medical and legal secretaries to learn the language of their profession, but secretaries in the general business world and technical world must also learn the language of their business.⁵ The technical

³Ibid.
⁴Ibid.
⁵Snelling, op. cit., p. 4.
secretary must be familiar with the technical vocabulary in a particular field of interest (much of which may be learned on the job).¹

Filing

With the mass of paperwork which today's high-speed machines can produce, the job of filing and retrieving records and of records management is increasing in importance.²

In addition to all the paper maintained, much of the pertinent information needed by business is stored on other media such as microfilm, microfiche, magnetic tape, magnetic disc, punched cards, and punched-paper tape. This variety emphasizes the fact that business is not concerned with the media, but it must have the information contained to function effectively.³

Business needs records management students who not only understand the basic filing methods and equipment, but who are capable of combining all available resources into an efficient and usable records management or information system.⁴

¹Walls, op. cit.


⁴Ibid.
Bookkeeping/Accounting

Before establishing the curriculum, the business teacher must first determine the objectives of the record-keeping/bookkeeping/accounting courses. Some of the objectives are concerned with the community, school, counseling, and required skills, so consideration must be given to these . . . .\(^1\)

Executives may require someone with an accounting background who can keep tax records, expenditures, or even do personal bookkeeping.\(^2\)

The most important objective of accounting at the community college and university levels is that students acquire the background needed for career employment.\(^3\)

Adult Education

Business educators must not think of business needs in the narrow terms of first jobs only. The changing nature and functions of office work emphasize the need for continuing education for students training in this field.\(^4\) Another


\(^2\) Snelling, Sr., op. cit., p. 2.


\(^4\) Hennington, op. cit.
area of service which would be found is supplementary or upgrading training for employed workers.

Community college programs in business will be a large part of the postsecondary education . . . these programs will be for occupational preparation and for upgrading the occupational skills that employed individuals already possess.¹

Word Processing

Automated word processing (AWP) in office operations has increased in importance during the last decade. In modern, corporate-style offices where AWP has been implemented, significant changes have been made in secretarial tasks, routines, procedures, and relationships with other personnel.² Also, modern word processing centers constitute the most innovative changes in the business communications system in recent years.³

In an attempt to stabilize costs, increase productivity, and improve the level of service to customers, many businesses are installing word processing centers, which combine up-to-date equipment with streamlined paper handling procedures.⁴ The growing use of word processing

¹Walters, op. cit.
²Powell, op. cit.
⁴Ibid.
in the modern office has opened a new field of job opportunities for secretaries.

Research on the impact of AWP on the traditional secretarial curriculum was conducted in the metropolitan Denver, Colorado, area and Powell stated, "... an assumption of the study was that certain secretarial tasks and duties must be performed regardless of whether the firm has a traditional secretarial system or an AWP system." The final results of the study revealed the need for a distinct curriculum for training administrative and correspondence secretaries for employment in an AWP system.

Business and office education teachers are responsible for preparing students for secretarial positions in AWP systems. An important consideration in determining curriculum content for changing office operations is to test the subject matter being taught to determine its relevance to new systems involved in a particular job.

Businessmen and educators will have to work together in exploring subject matter areas to be taught to students interested in an AWP secretarial career. If, after informally or formally surveying local businesses, a teacher finds that word processing centers are being organized, business courses must be modified in order to equip students with

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1 Powell, op. cit., p. 24.
2 Ibid.
3 Ibid., p. 23.
word processing skills necessary for entry-level jobs.\(^1\)
Internships or part-time employment in word processing centers is recommended as a prerequisite to entry-level employment.\(^2\)

Secretarial and/or clerical programs limited to typing, shorthand, and business machines are obsolete in the context of the word processing center.\(^3\) The typist who works in a word processing center and keyboards the recorded media must be especially proficient.\(^4\) The correspondence secretary in a word processing system must be proficient in transcription techniques to be able to direct and evaluate the work of the transcribers in the system.\(^5\)

**Summary**

Current studies and projections indicate the need for office personnel will continue to grow because of replacements and the new jobs that are being established due to modern technology and improved methods of communications. Educators need to keep informed of the technology and methods used by business to insure instructions given in the classroom will meet the demands graduates encounter on the job.

\(^1\)Jalowsky and Frame, op. cit., p. 15.
\(^2\)Ibid., p. 29.
\(^3\)Ibid.
\(^4\)Meyer, op. cit.
\(^5\)Ibid.
The methods used by businesses is as equally important as the kinds of equipment used. Business educators need to be aware of the equipment used in business offices so similar kinds of equipment will be utilized in the classroom for training purposes.
Chapter 3
PRESENTATION OF DATA

The purposes of this study were to determine the curriculum needs of the secretarial science program at Hutchinson Community College and to determine the skills necessary for students to obtain initial employment and job advancement. To help determine this, a questionnaire was sent to 100 randomly selected businesses in the Hutchinson, Kansas, area. Eighty-five questionnaires were returned, with 7 businesses indicating the business was no longer operating. The remaining 78 responses represented 13 areas: retail sales, 20 responses, or 25.64 percent; manufacturing, 13 responses, or 16.66 percent; finance-investments, 8; or 10.26 percent; service contracting, 7, or 8.97 percent; legal, 7, or 8.97 percent; real estate, 6, or 7.69 percent; medical, 4, or 5.12 percent; grain, 3, or 3.84 percent; news media, 3, or 3.84 percent; accountants, 2, or 2.56 percent; insurance, 2, or 2.56 percent; and travel agency, abstract company, architect, each 1, or 1.28 percent.

Some questions on the questionnaire were left unanswered by some of the businesses responding, and many of the businesses marked more than one response per question.

The 78 businesses employed 71 part-time clerical persons and 695 full-time clerical employees. There were
52 businesses that employed 0 to 5 full-time employees, or
66.66 percent of those responding. Thirteen businesses
employed 6 to 10 persons, being 16.66 percent. One business
employed 11 to 15 clerical personnel, or 1.28 percent. There
was no representation in the 16 to 20 range and 4 employed
21 to 25, or 5.12 percent. Five, or 6.41 percent, employed
26 or more clerical personnel. These represented 1 from each
of the following groups: medical, finance-investment, grain,
food distributor, and manufacturing. The largest employer
employed 150 full-time clerical personnel.

Table 1 shows where the businesses recruit clerical/
secretarial personnel. Many of the respondents indicated
using more than one source. The three sources used most
often were: word of mouth, which was used by 51, or 65.38
percent, of the respondents; public employment agency, which
was used by 42, or 53.85 percent, of the respondents; and
newspaper advertisement, which was used by 35, or 44.87
percent, of the respondents. The community college was used
by 25, or 32.05 percent, of the respondents. Seven, or 8.97
percent, of the respondents marked "other" and listed those
means as: walk-in, in-house recruiter, employment agency
operated within the company, and business college, each
listed once, or 1.28 percent; and application files was
listed twice, or 2.56 percent.

Businesses were asked how difficult clerical/secretarial positions were to fill. Table 2 shows that 9, or
11.54 percent, found the vacancies easy (6 to 10 qualified
Table 1
Sources of Clerical/Secretarial Applicants for Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Source</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Employment Agency</td>
<td>19</td>
<td>24.36</td>
</tr>
<tr>
<td>High Schools</td>
<td>10</td>
<td>12.82</td>
</tr>
<tr>
<td>Community College</td>
<td>25</td>
<td>32.05</td>
</tr>
<tr>
<td>Trade Schools</td>
<td>11</td>
<td>14.10</td>
</tr>
<tr>
<td>Public Employment Agency</td>
<td>42</td>
<td>53.85</td>
</tr>
<tr>
<td>Within Company</td>
<td>19</td>
<td>24.36</td>
</tr>
<tr>
<td>Newspaper Advertisement</td>
<td>35</td>
<td>44.87</td>
</tr>
<tr>
<td>Word of Mouth</td>
<td>51</td>
<td>65.38</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>8.97</td>
</tr>
</tbody>
</table>
## Table 2

**Difficulty of Filling Clerical/Secretarial Vacancies by Selected Businesses in Hutchinson, Kansas, 1978**

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy (6 to 10 Qualified Applicants)</td>
<td>9</td>
<td>11.54</td>
</tr>
<tr>
<td>Medium (3 to 5 Qualified Applicants)</td>
<td>35</td>
<td>44.87</td>
</tr>
<tr>
<td>Difficult (0 to 2 Qualified Applicants)</td>
<td>26</td>
<td>33.33</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3.85</td>
</tr>
</tbody>
</table>
applicants) to fill; 35, or 44.87 percent, found the vacancies medium difficult (3 to 5 qualified applicants) to fill; 26, or 33.33 percent, found the vacancies difficult (0 to 2 qualified applicants) to fill. Three, or 3.85 percent, indicated other, and responded that the positions were easy to find applicants, but not with sufficient qualifications for the vacancy.

Table 3 reveals the responses of businesses that provide opportunity for job advancement with 62, or 79.49 percent, responding yes; and 11, or 14.10 percent, responding no. Table 4 shows how job advancements are determined. Twelve, or 15.38 percent, indicated advancement was determined by seniority; 60, or 76.92 percent, by increased knowledge about the business; 45, or 57.69 percent, by improved skills; and 7, or 8.97 percent, by other means, such as: educational degree, ability to perform a variety of tasks, merit, qualifications, attitude, length of previous service in former employment, economic conditions, and ambition.

Office Education Program

Businesses were asked if there was a need for a cooperative office education program at Hutchinson Community College, and 54, or 69.23 percent, indicated yes; 1, or 1.28 percent, indicated no; and 21, or 26.92 percent, indicated a need for more information before an opinion could be given. These results are shown in Table 5.
Table 3

Opportunity for Job Advancement Within Selected Business Firms Employing Clerical/Secretarial Employees in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>62</td>
<td>79.49</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>14.10</td>
</tr>
</tbody>
</table>
Table 4
Method of Advancements for Clerical/Secretarial Employees in Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniority</td>
<td>12</td>
<td>15.38</td>
</tr>
<tr>
<td>Increased Knowledge About the Business</td>
<td>60</td>
<td>76.92</td>
</tr>
<tr>
<td>Improved Skills</td>
<td>45</td>
<td>57.69</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>8.97</td>
</tr>
</tbody>
</table>
Table 5
Need for a Cooperative Office Education Program at Hutchinson Community College as Indicated by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>54</td>
<td>69.23</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>Don't Know</td>
<td>21</td>
<td>26.92</td>
</tr>
</tbody>
</table>
Table 6 shows the companies indicating an interest in employing persons receiving clerical/secretarial training at the community college. Sixty-seven, or 85.90 percent, indicated yes; and 8, or 10.26 percent, indicated no. As shown in Table 7, 39, or 50 percent, indicated a willingness to provide part-time training in the firm for community college clerical/secretarial students; and 32, or 41.03 percent, responded no. Three, or 3.84 percent, responded more information was needed before a decision could be reached on the question.

Businesses indicating a willingness to provide part-time training could provide training in the following positions: receptionist was available by 16, or 20.51 percent, of the businesses; typist by 25, or 32.05 percent; file clerk by 18, or 23.08 percent; bookkeeper/accountant by 17, or 21.79 percent; secretary by 14, or 17.95 percent; and other positions by 11, or 14.10 percent. The other positions were: teller, proof machine operator, teletype operator, sales in addition to clerical duties, key punch operator, travel consultant, and EDP operator. The responses are revealed in Table 8.

**Equipment Used by Businesses**

Kinds of typewriters used by the 78 businesses are shown in Table 9. Sixty-nine, or 88.46 percent used electric typewriters; 27, or 34.62 percent, used manual typewriters; and 10, or 12.82 percent, had executive typewriters. Of the
Table 6
Firms Indicating an Interest in Employing Persons Receiving Clerical/Secretarial Training at Hutchinson Community College in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>67</td>
<td>85.90</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>10.26</td>
</tr>
</tbody>
</table>
Table 7

Firms Indicating a Willingness to Provide Part-time Training Positions for Community College Students in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>50.00</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>41.03</td>
</tr>
<tr>
<td>Maybe</td>
<td>3</td>
<td>3.84</td>
</tr>
</tbody>
</table>
Table 8

Part-time Training Station Positions Available to Students in the Secretarial Science Program at Hutchinson Community College in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Positions</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receptionist</td>
<td>16</td>
<td>20.51</td>
</tr>
<tr>
<td>Typist</td>
<td>25</td>
<td>32.05</td>
</tr>
<tr>
<td>File Clerk</td>
<td>18</td>
<td>23.08</td>
</tr>
<tr>
<td>Bookkeeper/Accountant</td>
<td>17</td>
<td>21.79</td>
</tr>
<tr>
<td>Secretary</td>
<td>14</td>
<td>17.95</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>14.10</td>
</tr>
</tbody>
</table>
Table 9
Kinds of Typewriters Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Typewriters</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td>69</td>
<td>88.46%</td>
</tr>
<tr>
<td>Manual</td>
<td>27</td>
<td>34.62%</td>
</tr>
<tr>
<td>Executive</td>
<td>10</td>
<td>12.82%</td>
</tr>
</tbody>
</table>
businesses indicating brands of typewriters used, 48, or 61.54 percent, used IBM electric typewriters; 4, or 5.13 percent, used Olympia; 4, or 5.13 percent, used Royal; 1, or 1.28 percent, used Underwood; 4, or 5.13 percent, used Smith-Corona; and 1, or 1.28 percent, used Secretarial. Fourteen, or 17.95 percent, used Royal manual typewriters; 6, or 7.69 percent, used Olympia manual; 2, or 2.56 percent, used Smith-Corona manual; and 1, or 1.28 percent, used Underwood manual.

Table 10 reveals that 23 businesses used automatic typewriters. Brands used by these businesses were: Telex, 3, or 3.85 percent; Magnetic tape, 2, or 2.56 percent; Memory, 8, or 10.26 percent; Magnetic card, 8, or 10.26 percent; and other, 2, or 2.56 percent. One of the respondents indicating "other" listed it as a DEC minicomputer, and the other respondent indicating "other" did not specify brand.

The kinds of copying equipment used by businesses are shown in Table 11. Xerox was the brand used most often with 25, or 32.05 percent, using that brand. Savin and 3-M brands were next with each used by 12, or 15.38 percent, of the respondents. The remaining brands and/or types listed on the questionnaire (IBM, Spirit Duplicator, Mimeograph, CRT & Printers, and Offset Duplicator) were used by no more than 7 of the respondents. Thermofax and Sharp copiers each had 0 responses. Seventeen, or 21.79 percent, indicated "other" and listed the following brands or types: Apeco, Royal Bond, Scott, Saxon, Pitney-Bowes, Canon, Mita Copystar, Toshibafax, and addressograph.
Table 10
Kinds of Automatic Typewriters Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Brand</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telex</td>
<td>3</td>
<td>3.85</td>
</tr>
<tr>
<td>Magnetic Tape</td>
<td>2</td>
<td>2.56</td>
</tr>
<tr>
<td>Memory</td>
<td>8</td>
<td>10.26</td>
</tr>
<tr>
<td>Magnetic Card</td>
<td>8</td>
<td>10.26</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2.56</td>
</tr>
</tbody>
</table>
Table 11
Copy Equipment Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Brand or Type</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xerox</td>
<td>25</td>
<td>32.05</td>
</tr>
<tr>
<td>IBM</td>
<td>5</td>
<td>6.41</td>
</tr>
<tr>
<td>3-M</td>
<td>12</td>
<td>15.38</td>
</tr>
<tr>
<td>Spirit Duplicator</td>
<td>4</td>
<td>5.12</td>
</tr>
<tr>
<td>Mimeograph</td>
<td>7</td>
<td>8.97</td>
</tr>
<tr>
<td>Thermofax</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Savin</td>
<td>12</td>
<td>15.38</td>
</tr>
<tr>
<td>Sharp</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>CRT &amp; Printers</td>
<td>2</td>
<td>2.56</td>
</tr>
<tr>
<td>Offset Duplicator</td>
<td>3</td>
<td>3.85</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>21.79</td>
</tr>
</tbody>
</table>
Adding machines and calculators used by the 78 businesses are shown in Table 12. Fifty-one, or 65.38 percent, used ten-key adding machines; 19, or 24.36 percent, used full-key adding machines; 45, or 57.69 percent, used electronic printing calculators; 27, or 34.62 percent, used ten-key printing calculators; 2, or 2.56 percent, used rotary calculators; and 33, or 42.31 percent, used electronic display calculators.

Table 13 lists the different kinds of transcribing machines used by the representative businesses. Ten, or 12.82 percent, of the businesses used the standard cassette; 11, or 14.10 percent, used belt; 1, or 1.28 percent, used disc; 9, or 11.54 percent, used mini-cassette; 2, or 2.56 percent, used loop and 4, or 5.13 percent, indicated "other." Those listed as "other" were Dictaphone Think Tank and reel to reel machine.

Thirty-seven businesses used computers; the results and brands used are shown in Table 14. Three, or 3.85 percent, used Burroughs computer; 8, or 10.26 percent, used key punch; 4, or 5.13 percent, used NCR; 3, or 3.85 percent, used Wang; and 19, or 24.36 percent, used IBM.

Provisions were made for businesses to list any other miscellaneous equipment used that was not specified on the questionnaire. These results are recorded in Table 15. Collators were used by 5, or 6.41 percent; word processing systems used by 1, or 1.28 percent; binders used by 3, or 3.85 percent; and 10, or 12.82 percent, indicated "other."
Table 12
Adding Machines and Calculators Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ten-Key Adding</td>
<td>51</td>
<td>65.38</td>
</tr>
<tr>
<td>Full-Key Adding</td>
<td>19</td>
<td>24.36</td>
</tr>
<tr>
<td>Electronic Printing Calculator</td>
<td>45</td>
<td>57.69</td>
</tr>
<tr>
<td>Ten-Key Printing Calculator</td>
<td>27</td>
<td>34.62</td>
</tr>
<tr>
<td>Rotary Calculator</td>
<td>2</td>
<td>2.56</td>
</tr>
<tr>
<td>Electronic Display Calculator</td>
<td>33</td>
<td>42.31</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Table 13
Transcribing Machines Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Types</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Cassette</td>
<td>10</td>
<td>12.82</td>
</tr>
<tr>
<td>Belt</td>
<td>11</td>
<td>14.10</td>
</tr>
<tr>
<td>Disc</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>Mini-cassette</td>
<td>9</td>
<td>11.54</td>
</tr>
<tr>
<td>Loop</td>
<td>2</td>
<td>2.56</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>5.13</td>
</tr>
</tbody>
</table>
Table 14
Brand of Computers Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Brand</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diablo</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Burroughs</td>
<td>3</td>
<td>3.85</td>
</tr>
<tr>
<td>Key Punch</td>
<td>8</td>
<td>10.26</td>
</tr>
<tr>
<td>NCR</td>
<td>4</td>
<td>5.13</td>
</tr>
<tr>
<td>Wang</td>
<td>3</td>
<td>3.85</td>
</tr>
<tr>
<td>IBM</td>
<td>19</td>
<td>24.36</td>
</tr>
</tbody>
</table>
Table 15

Miscellaneous Equipment Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collators</td>
<td>5</td>
<td>6.41</td>
</tr>
<tr>
<td>Word Processing Systems</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>Binders</td>
<td>3</td>
<td>3.85</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>12.82</td>
</tr>
</tbody>
</table>
The other equipment was: postal machine, teletype, bookkeeping machine, CRT, Frieden add-punch, NCR posting, and DMC terminals.

Skills Needed by Employees

The minimum typing speed required for initial employment by the responding businesses is shown in Table 16. Eight, or 10.26 percent, of the businesses required 40 WPM; 30, or 38.46 percent, required 50 WPM; 22, or 28.21 percent, required 60 WPM; 5, or 6.41 percent, required 70 WPM; and 1, or 1.28 percent, required over 80 WPM.

The minimum shorthand speed required for initial employment is shown in Table 17. Eight, or 10.26 percent, of the businesses required 70 WPM; 10, or 12.82 percent, required 80 WPM; 3, or 3.85 percent, required 90 WPM; 2, or 2.56 percent, required 100 WPM; 1, or 1.28 percent, required 120 WPM; and none required over 120 WPM.

Only 6 respondents indicated a higher speed for either typewriting or shorthand for the more advanced positions in the company. There was 1 response each for typewriting speeds of 60 WPM, 75 WPM, and 80 WPM; and 1 response each for shorthand speeds of 50 WPM, 100 WPM, and 125 WPM. These results are shown in Table 18.

Responses to the question concerning pre-employment tests being given for typewriting and shorthand skills are shown in Table 19. Eighteen, or 23.08 percent, indicated giving pre-employment tests and 52, or 66.66 percent,
Table 16
Minimum Typing Speed for Initial Employment Required by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Speed</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 WPM</td>
<td>8</td>
<td>10.26</td>
</tr>
<tr>
<td>50 WPM</td>
<td>30</td>
<td>38.46</td>
</tr>
<tr>
<td>60 WPM</td>
<td>22</td>
<td>28.21</td>
</tr>
<tr>
<td>70 WPM</td>
<td>5</td>
<td>6.41</td>
</tr>
<tr>
<td>80 WPM</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Over 80 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
</tbody>
</table>
Table 17
Minimum Shorthand Speed for Initial Employment Required by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Speed</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 WPM</td>
<td>8</td>
<td>10.26</td>
</tr>
<tr>
<td>80 WPM</td>
<td>10</td>
<td>12.82</td>
</tr>
<tr>
<td>90 WPM</td>
<td>3</td>
<td>3.85</td>
</tr>
<tr>
<td>100 WPM</td>
<td>2</td>
<td>2.56</td>
</tr>
<tr>
<td>120 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>Over 120 WPM</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Table 18

Required Typewriting Speed and Shorthand Speed for Advanced Positions in Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Speed</th>
<th>Typewriting</th>
<th>Shorthand</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>60 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>75 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>80 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>50 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>100 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>125 WPM</td>
<td>1</td>
<td>1.28</td>
</tr>
<tr>
<td>Response</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td>23.08</td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>66.66</td>
</tr>
</tbody>
</table>
indicated not giving pre-employment tests. Of those respond-
ing yes to giving pre-employment tests, Table 20 lists the
areas covered by the tests. Fifteen, or 19.23 percent, of the
businesses used a speed test; 6, or 7.69 percent, used a
problem letter; 6, or 7.69 percent, tested transcription
skills; 7, or 8.97 percent, tested English skills; and 7,
or 8.97 percent indicated "other." Spelling, ability to
follow instructions, and accuracy were the other skills
tested.

Table 21 shows the methods of filing used by the
respondents with 74, or 94.87 percent, using the alphabetic
method; 42, or 53.85 percent, using numeric method; 8, or
10.26 percent, using geographic; and 4, or 5.13 percent,
indicating "other," which were chronologic, subject, and
color coding.

Seven, or 8.97 percent, of the businesses responding
use microfilm equipment; and 9, or 11.54 percent, use
microfiche equipment. These results are shown in Table 22.

A knowledge of bookkeeping/accounting for clerical/
secretarial personnel was necessary by 62, or 79.49 percent,
of the businesses responding, as shown in Table 23.

Table 24 shows 43, or 55.13 percent, of the businesses
canvased use technical terminology in the business; however,
every respondent indicated this knowledge is gained on the
job.

Thirty-two, or 41.03 percent, indicated providing
an in-house training program (Table 25) and Table 26 reveals
Table 20
Kinds of Pre-employment Tests Given by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>15</td>
<td>19.23</td>
</tr>
<tr>
<td>Problem Letter</td>
<td>6</td>
<td>7.69</td>
</tr>
<tr>
<td>Transcription</td>
<td>6</td>
<td>7.69</td>
</tr>
<tr>
<td>English</td>
<td>7</td>
<td>8.97</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>8.97</td>
</tr>
</tbody>
</table>
Table 21
Methods of Filing Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Method</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alphabetic</td>
<td>74</td>
<td>94.87</td>
</tr>
<tr>
<td>Numeric</td>
<td>42</td>
<td>53.85</td>
</tr>
<tr>
<td>Geographic</td>
<td>8</td>
<td>10.26</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>5.13</td>
</tr>
</tbody>
</table>
Table 22
Special Filing Equipment Used by Selected Businesses in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microfilm</td>
<td>7</td>
<td>8.97</td>
</tr>
<tr>
<td>Microfiche</td>
<td>9</td>
<td>11.54</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Table 23

Firms Requiring a Knowledge of Bookkeeping/Accounting by Their Clerical/Secretarial Employees in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>62</td>
<td>79.49</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>17.95</td>
</tr>
</tbody>
</table>
Table 24
Firms Requiring a Knowledge of Technical Terminology by Their Clerical/Secretarial Employees in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>43</td>
<td>55.13</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>41.03</td>
</tr>
</tbody>
</table>
Table 25

Firms Providing In-house Training for Clerical/Secretarial Employees in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>41.03</td>
</tr>
<tr>
<td>No</td>
<td>41</td>
<td>52.56</td>
</tr>
</tbody>
</table>
Table 26
Firms Willing to Participate in a Clerical/Secretarial Retraining Program Offered by Hutchinson Community College in Hutchinson, Kansas, 1978

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>19</td>
<td>24.36</td>
</tr>
<tr>
<td>No</td>
<td>35</td>
<td>44.87</td>
</tr>
<tr>
<td>Maybe</td>
<td>17</td>
<td>21.79</td>
</tr>
</tbody>
</table>
the interest of the respondents in a retraining program being offered by Hutchinson Community College. Nineteen, or 24.36 percent, indicated they would be interested in such a program; 35, or 44.87 percent, indicated not being interested in such a program; and 17, or 21.79 percent, indicated possible interest in a retraining or up-grading program at the community college.
Chapter 4

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purposes of this study were to determine the curriculum needs of the secretarial science program at Hutchinson Community College and to determine the skills necessary for students to obtain initial employment and job advancement.

Current studies and projections indicate the need for office personnel will continue to grow because of replacements and the new jobs that are being established due to modern technology and improved methods of communications. Educators need to keep informed of the technology and methods used by businesses to insure instructions given in the classroom will meet the demands graduates encounter on the job.

To help determine the curriculum needs of the secretarial science program at Hutchinson Community College, a questionnaire was sent to 100 randomly selected businesses in the Hutchinson, Kansas, area. Eighty-five questionnaires were returned, with 7 businesses indicating the business was no longer operating. The 13 areas represented by the 78 responding companies were: retail sales, manufacturing, finance-investments, service contracting, legal, real estate, medical, grain, news media, accountants, insurance, travel
agency, abstract company, and architecture. Some questions on the questionnaire were left unanswered by some of the businesses responding, and many of the businesses marked more than one response per question.

Summary

The following summary pertains to the responses from the questionnaires and how they relate to the secretarial science program at Hutchinson Community College.

1. Word-of-mouth was the source used by the majority of businesses in filling clerical/secretarial vacancies, with 65.38 percent using that source. Public employment agency was used by 53.85 percent and newspaper advertising was third most popular, with 44.87 percent of the businesses using that source.

2. The majority of the businesses represented by the questionnaire employed between 0 and 5 full-time clerical employees.

3. Over 33 percent of the businesses indicated it was difficult to find qualified applicants for the vacancies in the clerical/secretarial positions.

4. Opportunity for job advancement exists in the Hutchinson, Kansas, area as evidenced by 79.49 percent of the responding businesses. Advancements are determined by increased knowledge about the business and by improved skills.

5. The majority of businesses believed there is a need for the secretarial science program at Hutchinson
Community College, and 26.92 percent indicated a need for more information about the program.

6. Fifty percent of the respondents indicated a willingness to provide part-time training positions for Hutchinson Community College secretarial science students.

7. Over 57 percent of the businesses indicated available training positions requiring typewriting skill.

8. Eighty-eight percent of the businesses responding to the questionnaire indicated the use of electric typewriters in the firm.

9. Only 23 of the 78 responding businesses indicated using automatic typewriters in their offices.

10. The five adding machines and calculators used most often are ten-key adding machine, electronic printing calculator, electronic display calculator, ten-key printing calculator, and full key adding machine.

11. Transcribing machines were used by 47.73 percent of the businesses.

12. Computers were used by 47.45 percent of the businesses represented, with IBM being the one used most often.

13. Typewriting skill of at least 50 WPM was required by 38.46 percent of the businesses as the minimum speed.

14. Shorthand was used by 30.77 percent of the businesses responding with the largest percent requiring a minimum speed of 80 WPM.
15. Speed tests in typewriting and shorthand, typing problem letters, transcribing from shorthand or transcribing machines, and completing tests measuring ability in the English language are administered by many prospective employers.

16. Alphabetic and numeric filing methods were used by most of the businesses with alphabetic being used by 94.87 percent of the respondents and numeric by 53.85 percent. Some businesses indicated using both.

17. Special filing equipment was used by 20.51 percent of the businesses.

18. Seventy-nine percent of the businesses responding indicated a knowledge of bookkeeping/accounting was necessary for clerical/secretarial employees.

19. A large number, 55.13 percent, of the businesses indicated a need for a knowledge of technical terminology for clerical/secretarial employees; however, every business indicated the knowledge was learned on the job.

20. More than half the respondents indicated the business did not offer in-house training; however, 44.87 percent indicated no interest in a retraining program being offered by Hutchinson Community College.

Conclusions

1. It appears the graduates of the secretarial science program will be employed primarily by small offices.
2. Use of the public employment agency is the best source to use when seeking employment in the clerical area.

3. It appears the secretarial science program could be valuable to clerical/secretarial employees in job advancement by improving the clerical skills.

4. It appears the secretarial science program enjoys a reputation for training qualified clerical/secretarial personnel, as 85.90 percent of the businesses indicated an interest in employing graduates of the program.

5. Fifty percent of the businesses indicating a willingness to provide part-time training is evidence of strong support for the secretarial science program and cooperation between the community and the Hutchinson Community College.

6. Typewriting appears to be a subject that should be required of all clerical/secretarial students as 57.68 percent of the businesses indicated training positions requiring typewriting skill.

7. It appears that IBM brand electric typewriters are used by the majority of businesses.

8. Automatic typewriters are not widely used by Hutchinson, Kansas, businesses at this time.

9. It appears there is not a need to have instruction of copying equipment, as there is such a variety of brands and methods used, it would be impossible to have a representative group of equipment available for instructional purposes.
10. It appears there is no longer a need to provide instruction on the rotary calculator as only 2.56 percent of the businesses are still using that type of machine.

11. Training on transcribing machines in the secretarial science program is indicated because over 47 percent of the businesses use transcribing machines.

12. There is a need for instruction on the use of computers.

13. So few businesses indicated a more advanced speed for either typewriting or shorthand skills at more advanced levels of employment, it would seem speed was not an important factor for advanced levels of employment.

14. With only 20.51 percent of the businesses using special filing equipment, it is indicated instruction would not be necessary in the classroom on this type of equipment.

15. There appears to be a need for accounting courses in the secretarial science program.

16. Indications are that instructions in technical terminology need not be provided by the secretarial science curriculum.

**Recommendations**

1. Curriculum in the secretarial science program should include subjects in all clerical areas, as most graduates will be employed in small offices, indicating a need to be versatile.
2. Electric typewriters should be used in the classroom for training purposes.

3. Visitations should be made to businesses in the Hutchinson, Kansas, area to inform the community of the secretarial science program.

4. Businesses indicating a willingness to provide part-time training for community college secretarial science students should be contacted by a coordinator.

5. Secretarial science students should prove a proficiency in typewriting of at least 50 WPM.

6. Instruction should continue to be given on automatic typewriters.

7. Instruction should not be provided on copying equipment.

8. Instruction should continue to be given on the ten-key and full-key adding machines and the electronic printing, electronic display, and printing calculators. Instruction on rotary calculators should be omitted from the business machines course.

9. Instruction on transcribing machines should continue to be provided.

10. Instruction on computers should continue to be provided.

11. Typewriting speed of 50 WPM should be assigned an average "C" grade, with higher grades requiring higher speeds.
12. Shorthand speed of 80 WPM should be assigned an average "C" grade, with higher grades requiring higher speeds.

13. Students should be provided practice in taking pre-employment tests covering typewriting and shorthand speed, transcription, typing letters, and English skills.

14. The content of the records management course should have an emphasis on alphabetic and numeric filing and special coded methods should be omitted.

15. At least one course in accounting should be required of secretarial science students.

16. Business firms should encourage their employees to up-grade their skills and to seek instruction on up-to-date equipment.

17. A survey of businesses should be made periodically to keep the secretarial science program abreast of current community needs.

18. Further research is needed to assess more accurately the kinds of office machines used by businesses. It is the opinion of the writer some businesses mistakenly marked ten key printing calculator instead of electronic calculators because the electronic calculators have a ten-key keyboard.

19. Further research is indicated to determine personality traits deemed desirable in clerical/secretarial employees.
BIBLIOGRAPHY

A. BOOKS


B. MONOGRAPHS


C. PERIODICALS


Holmes, Lorene Barnes. "Now is the Time for All Good Typewriting Teachers to Come to the Aid of Their Students," Business Education Forum, XXX (February, 1976), 16-19.


D. GOVERNMENT PUBLICATIONS


APPENDIXES
APPENDIX A

Letter of Transmittal
Questionnaire
Post Card
Follow-up Letter
Thank-you Letter
July 10, 1978

Personnel Officer
Krause Plow Corporation
305 South Monroe
Hutchinson, Kansas 67501

Dear Personnel Officer:

In order to keep the secretarial science program at Hutchinson Community College relevant to the needs of the business community, we are asking your cooperation in completing a survey of business firms employing secretarial/clerical workers.

With improved techniques and modern technology, it is vital that we obtain current information of what businesses in Hutchinson expect from their secretarial/clerical employees. Having your responses included will enable us to offer a program of study that will better prepare our graduates for secretarial/clerical positions.

Your assistance in this survey will be appreciated and will be beneficial to both the business firms in Hutchinson and the secretarial science program at Hutchinson Community College.

We believe the enclosed questionnaire is self-explanatory; however, should you need further information please feel free to call.

An addressed, postage-paid envelope is enclosed for your convenience.

Sincerely,

Karen Wingfield, Coordinator
Home phone: 663-3221

Sandra Allison, Related Instructor
Home phone: 662-8424

KW/SA

Enclosures: Two-page questionnaire
Self-addressed envelope
1. Name of firm or business ____________________________

2. Address ____________________________

3. Phone ____________________________ 4. Nature of business ____________________________

5. Person to contact about clerical/secretarial positions:

6. Total number of clerical/secretarial employees:
   ______ part-time ________ full-time

7. Where do you go to find persons to fill clerical/secretarial jobs:
   ____ private employment agency   ____ public employment agency
   ____ high schools                ____ within the company
   ____ community college          ____ newspaper advertisement
   ____ trade schools              ____ word of mouth
   ____ other, please specify ______

8. When clerical/secretarial vacancies do occur, how difficult are they to fill:
   ____ easy, (6-10 qualified applicants)  ____ difficult, (0-2 qualified applicants)
   ____ medium, (3-5 qualified applicants)  ____ other, please specify ______

9. Is there opportunity for job advancement within your firm:
   ____ yes   ____ no

10. How are these advancements determined:
    ____ seniority    ____ improved skills
    ____ increased knowledge about the business    ____ other, please specify ______

The following questions relate to the cooperative office education program as offered at Hutchinson Community College

11. Do you believe there is a need for this cooperative education program at Hutchinson Community College:
    ____ yes   ____ no
    ____ don't know, need more information

12. Would your firm be interested in employing persons who have received clerical/secretarial training at the community college:
    ____ yes   ____ no

13. Would your firm be willing to assist in providing part-time training at your firm for community college students:
    ____ yes   ____ no

14. If the answer to question 13 is yes, what kinds of part-time training positions would be available:
    ____ receptionist    ____ bookkeeper/accountant
    ____ typist          ____ secretary
    ____ file clerk      ____ other, please specify ______

The following questions relate to the types of equipment your firm is using in the clerical/secretarial offices at the present time or anticipate using within the next year.

15. Typewriters:
    ____ electric typewriter (brand name)    ____ executive typewriter
    ____ manual typewriter (brand name)       

16. Automatic typewriters:
    ____ Telex    ____ memory
    ____ Mag tape   ____ Mag card
    ____ other, please specify ______
17. Copying equipment:
- Xerox
- IBM
- 3-M
- Spirit duplicator
- Mimeograph
- Thermofax
- Savin
- CRT & printers
- offset duplicator
- other, please specify

18. Adding machines and calculators:
- ten-key adding machine
- full-key adding machine
- electronic printing calculator
- other, please specify
- ten-key printing calculator
- rotary calculator
- electronic display calculator

19. Transcribing machines:
- standard cassette
- belt
- disc
- other, please specify
- mini-cassette
- loop

20. Computers:
- Diablo
- Burroughs
- key punch
- (model no.)
- NCR
- Wang
- IBM

21. Miscellaneous equipment
- collators
- binders
- word processing systems
- other, please specify

The following questions relate to the level of skills needed by your employees. Please check all of the blanks as they apply to your business.

22. Minimum typewriting skill (words per minute) for initial employment
- 40 WPM
- 50 WPM
- 60 WPM
- over 60 WPM, please specify

23. Minimum shorthand skill (words per minute) for initial employment
- 70 WPM
- 80 WPM
- 90 WPM
- over 90 WPM, please specify

24. Is there a required level of skill for more advanced positions? If so,
- WPM for typewriting
- WPM for shorthand

25. Are pre-employment tests given for typewriting and shorthand skills?
- yes
- no

26. If the answer to question 25 is yes, which of the following skills do these tests measure?
- speed
- problem letter
- English
- other, please specify

27. What method or methods of filing are used by your firm?
- alphabetic
- geographic
- numeric
- other, please specify

28. Special filing equipment used, if any
- microfilm
- microfiche
- other, please specify

29. Is a knowledge of bookkeeping/accounting needed by your clerical/secretarial employees?
- yes
- no

30. Is a knowledge of technical terminology used by your business needed by your clerical/secretarial employees?
- yes
- no

31. Is there an in-house training or retraining program for clerical/secretarial employees provided by your firm?
- yes
- no

32. Would your employees participate in a clerical/secretarial retraining program offered by Hutchinson Community College?
August 1, 1978

Dear Personnel Officer:

A few weeks ago I sent you a questionnaire about the secretarial science program at Hutchinson Community College. As of this date, I have not heard from you.

Your opinion is valuable in evaluating the secretarial science curriculum. Won't you please fill out and return the questionnaire.

Sincerely yours,
September 1, 1978

Personnel Officer
Decker-Mattison Company
500 West Second
Hutchinson, KS 67501

Dear Personnel Officer:

A few weeks ago I mailed a questionnaire to you concerning the secretarial/clerical program at Hutchinson Community College. Perhaps the questionnaire did not reach you or has been mislaid, so I have enclosed another one.

This study is important in helping us keep our curriculum updated in the secretarial/clerical program here at Hutchinson Community College. As an employer of secretarial/clerical personnel, your responses are of value and are needed.

Please use the enclosed, self-addressed envelope to send in your completed questionnaire. Your help will be sincerely appreciated.

Sincerely,

Karen Wingfield
Coordinator

Sandi Allison
Related Instructor

Enclosures
Mrs. Pat Nichols  
Decker & Mattison Company  
500 West Second  
Hutchinson, KS 67501  

Dear Mrs. Nichols:

I would like to thank you for your assistance in completing the questionnaire concerning the secretarial/clerical program at Hutchinson Community College.

The results have been tabulated from all the responses we received and are of great value to us in evaluating the curriculum of the secretarial science program at the College.

If we can be of any assistance to your businesses in any way, please contact us.

Again, thank you for taking time to help in this survey.

Sincerely,

Sandi Allison
APPENDIX B

List of businesses receiving questionnaire

List of businesses indicating a willingness to provide part-time training positions
List of Businesses Receiving Questionnaire
Hutchinson, Kansas

1. Accountants Realty, 720 North Main
2. Architectural Millwork, 401 South Adams
3. Ark Veterinary Clinic, 1717 North Plum
4. Associates Veterinary, 701 North Main, (South Hutchinson)
5. Avco Financial Services, Inc., 328 North Main
7. Bailly Farm Supply, 2601 East Fourth
8. Beach, Ed Electric Co., Inc., 313 South Main
10. Bevan Motor Co., 108 West First Avenue
11. Bloskey, Terry, For Women, 108 North Main
12. Bottomly, Bob, Oldsmobile-Cadillac-Datsun, Inc., Corner East Eleventh
13. Boyd Motors, Inc., 124 West Second
15. Bunge Corporation, 702 Wiley Building
17. Carey Salt Co., The, 1800 Carey Boulevard
18. Cargil Salt, Cleveland & Campbell
19. Central Glass Co., Inc., 209 West Second
20. Central Kansas Credit Union, 27th & Main
21. Cessna Fluid Power Division, 3742 East Fourth
22. Chemi-Sol Chemical & Sales Co., 2412 East Fourth
23. Coleman Transfer & Storage, Inc., 515 East Second
25. Conklin, Stuart, Buick-Honda, 110 West Second
27. Continental Realty, 500 North Main
28. Countryside Mobile Homes of Hutchinson, 700 North Main, (South Hutchinson)
29. Crawford-Harman, Inc., 2602 North Main
30. Davenport Auction-Realty, Inc., 27 South Main, (South Hutchinson)
31. Decker-Mattison Co., Inc., 500 West Second
32. DeMint Appliance Service, Inc., 317 North Main
33. Dental Center, 200 East Thirtieth
34. Dillon Companies, Inc., 2516 East Fourth
35. Gottschalk, Bolton & Juhnke, 421 West First
36. Eve, Inc., 225 South Main
37. Ewing Construction, Inc., 219 North Whiteside
38. Far-Mar-Co., Inc., 1600 North Lorraine
39. Financial Planning & Consulting Services, 520 First National Bank Building
40. First Federal Savings & Loan Assn., Main Street at Ninth Avenue
41. First National Bank, The, 1 North Main
42. First National Travel Agency, Inc., 201 East First
43. Galloway, Dexter E., 401 First National Center, 1 North Main
44. Gilliland, Hayes & Goering, 330 West First
45. Go-Steel, Inc., Avenue D and South Washington
46. Graber's, 22-30 West First
47. Great American Life Insurance Co., The, 23 East First
48. Hageman & Bartlett Accounting, 1210-A North Main
50. Home Credit Co., 14 West First
51. Huey, Bruce R., Builders, Wiley Building
52. Hutchinson Bag Corp., 215 South Poplar
53. Hutchinson Clinic, 1125 North Main
54. Hutchinson News, The, 300 West Second
55. Hutchinson Orthopaedic Clinic, 2415 North Main
56. Hutchinson Small Animal Hospital, 1201 East Thirtieth
57. Hutchinson Travel Agency, 19 West Second
58. Jayhawk Realty Co., Inc., 510 East Seventeenth
59. K S K U Stereo Radio, 2627 East Fourth
60. K W H K Broadcasting Co., Inc., 535 North Main
61. Kaiser Aluminum & Chemicals Sales, Inc., 300 East Avenue B
62. Kingsley-Wagner Supply, 115-21 East Sherman
63. Kirk, Earl Chrysler Plymouth, Inc., 100 West Second
64. Kline-Haverty Inc., 100 South Walnut
65. Knightly, J. William & Co., 316 West First
66. Krause Plow Corp., 305 South Monroe
67. Lane & Leslie Advertising Agency, Inc., 720 First National Bank Building
68. Leech Products, Inc., 1420 West Fourth
69. McNaghten Investment Co., Inc., 205 First National Center, 1 North Main
70. Man Del Co., 504 North Main
71. Mann & Co., 700 First National Bank Building
72. Martindell, Carey, Hunter, & Dunn, 601-10 Wolcott Building
73. Massey Ferguson, Inc., 1401 West Fourth
74. Messing, Terry Realtors, 1011 North Main
75. Miller, Hiett, Dronberger, Arbuckle & Walker, 825 North Main
76. Mitchell, Wm. L., 119 West Sherman
77. Morton Salt Company, 1000 Morton Drive, (South Hutchinson)
78. Orkin Exterminating Co., Inc., 316b North Poplar, (South Hutchinson)
79. Oswald, John, Real Estate, 13 East Thirteenth
80. Packaging Corporation of America, P. O. Box 1267
81. Penn Mutual Life Insurance Co., First National Center, 1 North Main
82. Polaris Leasing Corporation, 1 Polaris Plaza
83. Reno County Abstract & Title, Inc., 301 First National Center, 1 North Main
84. Robinson Chevrolet, 1100 East Thirtieth
86. Salt City Federal Savings & Loan Assn., 501 East Thirtieth
87. Sears, Roebuck and Company, 15 North Adams
88. Security Pacific, 820 North Main
89. Shane Homes, Inc., 615 First National Bank Building
90. Shears', J. H. Sons, Inc., 819 West First
91. Stevens, Inc., 225 South Main
92. Stuckey Lumber & Supply Inc., 1103 North Lorraine
93. Sunflower Glass & Paint Co., Inc., 118 West Second
94. Syler Osteopathic Clinic, 14 West Sixth
95. Triple K Sales, 1220 West Fourth
96. Valley Federal Savings & Loan Assn., 1020 North Main
97. Waddell & Reed, Inc., 407 Wolcott Building, 201 North Main
98. Weinlood, Cole, Shaffer & Brown, 525 First National Center, 1 North Main
99. Woodwork Manufacturing & Supply, 16 West Fourth

100. Zephyr, Inc., 400 East Second
Businesses Indicating Possible Part-time Training Positions for Secretarial Science Students

1. Baillys Farm Supply, Inc.
2. Continental Grain Company
3. Continental Realty
5. J. William Knightly & Company
6. K W H K Radio
7. Branine, Chalfant, Hyter & Hill
8. Galloway & Melvin Law Office
9. Law Offices of Mitchell and Henry
10. Cargill Salt
11. First National Bank
12. Stuart Conklin Buick-Honda
15. John C. Oswald Real Estate
16. Sears, Roebuck and Company
17. Penn Mutual
18. Decker & Mattison Co., Inc.
19. Collingwood Grain, Inc.
20. Dillon Stores Co., Inc.
21. Hageman, Bartlett & Babcock Accounting
22. Hutchinson Travel Agency
23. J. H. Shears' Sons, Inc.
24. The Hutchinson News
25. Robinson Chevrolet
27. Stuckey Lumber & Supply
28. Coleman American Storage
29. R. W. Rogg & Associates
30. Lane & Leslie Advertising Agency, Inc.
31. Gottschalk, Bolton & Juhnke
33. Hutchinson Bag Corporation
34. Architectural Millwork, Inc.