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## A survey of selected business offices in Modesto with implications for curriculum and guidance at Modesto Junior College

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A SURVEY OF SELECTED BUSINESS OFFICES IN MODESTO  
WITH IMPLICATIONS FOR CURRICULUM AND  
GUIDANCE AT MODESTO JUNIOR COLLEGE

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A Thesis  
Presented to  
the Faculty of the School of Education  
College of the Pacific

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts in Education

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by  
Carol Kent Savage  
August 1950

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## CHAPTER I

### THE PROBLEM

#### INTRODUCTION TO THE PROBLEM

Business education in a junior college serves a dual purpose. First, it aims to prepare students with the technical skills, information, and the personal competence which will enable them to take their place in business occupations. Second, it provides the first two years of undergraduate work for students who plan to continue their business training at a four-year college or university in preparation for professional service in the business world.

Completion of the junior college program marks the end of formal classroom training for most of the students in the first group; therefore, the junior college has the great responsibility of providing these students with the following: (1) a marketable skill which will enable them to enter employment, do satisfactory work, and advance in the occupation; (2) a general education with a practical approach which will provide for their personal development in the attainment of social understanding and competence; (3) guidance in making educational-vocational plans and in becoming vocationally adjusted.

If the junior college is to meet these important obligations, its terminal education program cannot be based on traditional ideas but must be geared to the changing conditions and requirements of business. This idea is well expressed in the California State Senate Report on Education for 1949:

An imperative in an adequate junior college program is an administration and staff of teachers who are constantly alert to and studying the changing patterns of needs and demands of the local community that surrounds and supports the college, the effect of changes in the wider communities of state, nation, and world upon the local community.<sup>1</sup>

To prepare young men and women for more effective living in our modern world, the schools must stress that type of training which bridges the gap between knowing and doing. This necessitates a careful analysis of the needs of the community and of the students.

Some effort has been made in the past in Modesto to study the needs of the community and the students. Brief mention of these studies will be made now, but they will be discussed at greater length in Chapter II. A study was made at Modesto High School in 1936 to evaluate the cooperative part-time program from the businessmen's viewpoint and from the viewpoint of the students who participated in the program.

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<sup>1</sup> Fourth Report Senate Investigating Committee on Education, 1949 (Senate of the State of California) p. 26.

In 1940, a business occupational survey was made to evaluate the commercial curriculum at Modesto High School. A study of the occupational choices of senior students was made at the local high school in 1944.

On the junior college level a local occupational survey was made in 1932 in which data were obtained about employment opportunities, employers' opinions in regard to local business training, and equipment used in these firms. A study was completed in 1949 dealing with the opinions of the alumni of Modesto Junior College to determine how adequately the College had served their needs.

All of these studies have contributed to keeping the business training in the Modesto schools consistent with the varied needs of both trainees and local business offices. This present study is a continuation of this effort to achieve a closer coordination between the needs of the businessmen and the needs of those students interested in business education.

#### STATEMENT OF THE PROBLEM

This survey of one hundred business offices in Modesto was conducted for the purpose of determining whether office training curriculum offered by the Modesto Junior College adequately prepares students to enter successfully the office occupations in the community.

## ANALYSIS OF THE PROBLEM

The following questions are related to the problem:

1. What jobs are available in the one hundred selected business offices in Modesto?
  - a. What is the number of workers now employed in each office position?
  - b. What is the proportion of male and female workers in each office position?
  - c. Where did the present employees receive their business training?
  - d. What is the estimated rate of turnover among these office employees?
  - e. How many of the employees hired within the last year are replacements? additions?
  - f. In what age groups do these office employees fall?
  - g. What proportion of these office jobs are filled by employees with previous experience?
2. What is the attitude of employers toward the hiring of employees who have been trained in local public schools?
  - a. From what sources are new employees secured?
  - b. Are employers willing to hire beginners from local public schools for part-time and full-time jobs?
  - c. Are employers satisfied with those employees who have been trained locally?

- d. What importance do employers attach to grades, attendance and tardy records, recommendations, and scores on aptitude tests.
  - e. What suggestions do employers have for improving training in regard to subject matter, skills, and personal characteristics?
3. How adequate is the business training equipment in use at the Modesto Junior College when compared with the equipment in business offices?
4. As a result of this investigation, what additions and changes might be made in the present curriculum to prepare students for the jobs available? What improvements might be made in the vocational guidance program?

#### IMPORTANCE OF THE PROBLEM

Cooperation between the employers and the business training departments in schools in planning the business curricula and the vocational guidance program is being stressed to a great extent at the present time. It is generally agreed that an adequate program for business training and an effective vocational program cannot be based completely on what has been done in the past, on what other communities are doing, or on the personal opinions of instructors in the commercial department.

Bruce F. Jeffery, Director of Business Teacher Training at the State Teachers' College in Salem, Massachusetts, in an article "Does My Clerical Course Meet Today's Needs?" states:

The instructional program of all phases of business education, especially that of general clerical, should be so flexible and subject to modification that it stands in constant readiness to meet the changing needs of the business community which it aims to serve . . . This revision and modification should be made upon the basis of valid and authoritative information and evidence secured from a representative sampling of the businesses and industries served.<sup>2</sup>

Such information can be obtained by various means: by making occupational surveys and job analyses, by setting up local advisory committees made up of representative businessmen and business instructors, and by follow-up studies of former students who are locally employed.

The great interest of business teachers in such a program is evidenced by the large amount of literature being written on the subject. Commercial periodicals such as the UBEA Forum, The Journal of Business Education, and The Business Education World have featured a number of articles recently dealing with the close relationship of the business training program and the community needs. Many research studies of the survey type have been made

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<sup>2</sup> Bruce F. Jeffery, "Does My Clerical Course Meet Today's Needs?" UBEA Forum, III:36, February, 1949.

by graduate students, and a number of bulletins and monographs have been published by state departments of business education and by vocational guidance bureaus giving suggestions and techniques for carrying out different types of surveys.

The values derived from such a study as this present one are many. In the first place, it will provide statistical data concerning the types of office jobs available, the educational training of the present workers, the age groups in which these workers fall, and the kinds of office jobs in which experienced workers are preferred. This up-to-date information on job opportunities is of value to counselors and business instructors.

By using the personal interview method, the interviewer is given the opportunity of visiting the business offices and becoming personally acquainted with the persons in charge. Such associations are valuable. Businessmen are given a chance to express their opinions regarding the quality of the office training given by the local schools and to make suggestions for improving this training. Employers are pleased to know that the schools are interested in providing them with well-trained employees. They become more aware of what the schools are doing in training young people for office work and that the school is an excellent



source for part-time and full-time help. The impression that the businessman has of the school is of importance as his support is necessary for a successful placement program.

In turn, the interviewer has the opportunity of seeing local offices in operation and learning of employers' problems. Much worth-while information was gained in regard to office procedures and standards during this survey which is not pertinent to this study, but which is of great interest to the interviewer in her capacity as a business instructor.

A check up on the type of equipment being used in local offices is of value in determining if the school is giving training on machines that are actually being used and is also of value in making plans for buying new equipment.

This idea of an exchange of information between businessmen and the school staff is well expressed by Frank Rowland, executive secretary of the Life Office Management Association, in an article entitled "Trends in Commercial Education from the Employer's Viewpoint"; he states, "Educate the employer as to your problems and how you are coping with them, and learn from him the exact nature of his problems and how you can cooperate."<sup>3</sup>

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<sup>3</sup> Frank Rowland, "Trends in Commercial Education from an Employer's Viewpoint," Eastern Commercial Teachers' Association Ninth Yearbook, 1936, p. 45.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### PURPOSE OF THIS CHAPTER

This chapter presents summaries of the findings of studies which are directly and indirectly related to this investigation.

#### STUDIES DIRECTLY RELATED TO THIS INVESTIGATION

Modesto surveys. In 1932 an occupational study<sup>1</sup> was carried out under the sponsorship of the Modesto Junior College and the Chamber of Commerce. Over seven hundred questionnaires were sent to local businesses. Some of the questions asked were of interest only to the Chamber of Commerce, while other questions dealing with occupational statistics are of no value now since this survey was carried out seventeen years ago. However, the questions asked regarding employers' opinions concerning locally trained employees are pertinent to this present study.

English and spelling were listed by 103 employers as subjects which should be stressed more. Arithmetic was

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<sup>1</sup> A. Larsen, Occupational Study of Business Firms in Modesto, California, (Unpublished mimeographed leaflet, Modesto Junior College, 1932) 10 pp.

listed by seventy-seven employers as a subject in which their workers were deficient. Bookkeeping, typing, and salesmanship were high on the list of subjects that should be taken by college business students according to these employers.

Of 368 employers who replied to the question "Would you consider Modesto Junior College graduates and former students to fill vacancies in your business?" 310 employers replied in the affirmative.

In regard to office equipment, it was interesting to note for comparative purposes with this study that 45 per cent of the typewriters in use in 1932 in the business firms studied were Royals, 23 per cent were Underwoods, 12 per cent were Remingtons, and the remaining 20 per cent were of miscellaneous makes.

Helen Holmberg<sup>2</sup> in 1940 conducted an investigation for the purpose of determining whether the commercial curriculum in the Modesto High School adequately and efficiently prepared students to enter successfully the business occupations of the community. The writer personally called on seventy-three business firms employing one office worker or more.

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2 Helen P. Holmberg, "A Business Occupational Survey of Modesto, California, as a Basis for Evaluating the Commercial Curriculum in Modesto High School," (unpublished Master's thesis, The University of Southern California, Los Angeles, 1940) 117pp.

This survey differs from the present one in that distributive occupations were included as well as office occupations. The most important findings were as follows:

- (1) The five occupations having the highest percentage of people were selling, bookkeeping, business management, stenographic work and the managing of offices. The largest field of employment was in selling for both men and women.
- (2) The greatest employee turnover was in selling, secretarial, general clerical, and accounting fields.
- (3) With respect to the educational status of employees, 37.8 per cent were high school graduates, 25.7 per cent were graduates of Modesto High School, 13.7 per cent were junior college graduates, 14.7 per cent were business college graduates, and 8.1 per cent were college graduates.
- (4) The five outstanding causes for failure in business were lack of interest, ambition, initiative, dependability, and poor training in the fundamentals. Weakness in character traits rather than in skills accounted for most of the failures.
- (5) Businessmen felt that more training should be given in spelling, penmanship, business English, and arithmetic.
- (6) This investigation pointed to the need for more training in the fields of ethics, personality, morals, and character.
- (7) More training was needed on all kinds of office machines.
- (8) Business life situations, wherever possible, should be established in the

office practice classes. (9) More young people should train for the selling field. (10) In regard to equipment, of all the typewriters used in Modesto firms 72 per cent were Royals and Underwoods.

Sacramento survey. Gladys Hayford<sup>3</sup> in 1942 made a survey which was concerned with finding out what the opportunities were for employment in the business-clerical field in the area served by the Sacramento Junior College and discovering what could be done specifically to train junior college students for the jobs available.

Personal calls were made to twenty representative private business firms as well as to civil service offices. Since this survey was made during the war years, the defense program made more office jobs than would exist in normal times. Therefore the data concerning job opportunities in the Sacramento study would be of no value for comparative purposes with the occupational data reported in this study. However, many of the questions asked in regard to employers' opinions concerning the quality of the training given by the schools are of interest in relation to this present study.

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<sup>3</sup> Gladys M. Hayford, "Civil Service and Other Office-Clerical Occupations in Sacramento as a Basis for Curriculum Improvements in the Junior College," (unpublished Master's thesis, University of California, Berkeley, 1942) 130 pp.

When employers were asked to name the weaknesses of employees trained locally, lack of ability to perform simple arithmetic headed the list, closely followed by weakness in spelling, vocabulary, and English. The inability to follow written directions and the lack of a serious attitude toward work were mentioned by many employers. Businessmen felt that it took a period of from three to six months before the new employee became of real value to the firm and that this time could be cut down if students were well trained in the fundamentals.

Miss Hayford made the suggestion that an up-to-date file of state civil service tests announcements and job analyses sheets be kept to serve as a guide in planning courses and also for guidance purposes.

One of the chief recommendations made in this study was that the junior college must not offer its business courses on an academic basis but on an office basis. It was pointed out that there is a growing tendency for the high schools to give the background courses for commercial training and the junior college to give the specific business training in the development of the skills. This training must prepare the student for his initial job and for advancement on the job.

Stockton survey. In 1948 a census-type survey including all the businesses within the Stockton unified school district was made. Using the material collected in this survey, Carol C. Thomas<sup>4</sup> completed a study in which she analyzed these data concerning office occupations and compared them with the occupational choices of students in Stockton High School and Stockton College.

Information was obtained concerning the number of people employed, number of people in each age group, number of people employed in the last twelve months, and the educational background of these employees. In this survey it was found that over 60 per cent of the people employed in non-supervisory jobs were between the ages of 25-50 while 25 per cent were under 25 years of age. The rate of turnover for non-supervisory office employees was 21.75 per cent.

Approximately 48 per cent of the non-supervisory office employees had gone beyond high school, 50 per cent, beyond the eighth grade. Those jobs in which more than half the employees had education beyond the high school level were bookkeeper, secretary, stenographer, typist, and transcription machine operator.

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<sup>4</sup> Carol C. Thomas, "A Study of Office Occupations and Student Job Preference in Stockton, California," (unpublished Master's thesis, University of California, Berkeley, 1949) 83 pp.

It would appear from this Stockton study that students are not well acquainted with occupational titles or job requirements and that there is a tendency for students to select the more familiar jobs such as secretary or bookkeeper as their preferences for careers.

Some of the recommendations which resulted from the Stockton study which are pertinent to this Modesto study are summarized as follows: (1) that a campaign to interest students in distributive occupations be started; (2) that more effort be made to relate on-the-job training with the classroom training; (3) that some training in selling be required of all business majors; (4) that training for non-supervisory office positions include a larger amount of information and business practice of a general clerical nature; (5) that more specific job information be included in guidance courses; (6) that information be collected as to the types of industries which employ the greatest number of cashiers, bookkeepers, typists, et cetera, as an aid in making business courses more practical; (7) that possibilities of cooperative on-the-job training courses be investigated; (8) that data be collected on the kinds of office machines used in the business community and that students should be informed of the job opportunities in office machine work.



## STUDIES INDIRECTLY RELATED TO THIS INVESTIGATION

Modesto surveys. Ward M. Nichols<sup>5</sup> in 1936 made an evaluation of the cooperative part-time training program in effect in the Business Department of the Modesto High School. This study is of interest to the present study in that the establishment of a cooperative work program is one of the answers to the problem of bridging the gap between the schools and the office, between theory and actual practice.

This study showed that over 90 per cent of the employers who participated in this cooperative work program indicated a favorable reaction to it, feeling that it offered practical training and that it supplemented the regular classroom work. They stated that the cooperative part-time students excelled those students who had not had this training in the possession of such traits as rapidity, neatness, reliability, cooperation, loyalty, self-confidence, accuracy, initiative, ambition, and good judgment.

Students who had received cooperative part-time training felt that their experience had increased their self-confidence upon later entering regular employment.

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<sup>5</sup> Ward M. Nichols, "An Evaluation of the Cooperative Part-time Training Program in Effect in the Business Department of Modesto High School," (unpublished Master's thesis, Stanford University, Stanford, California, 1936) 147 pp.

Alice Ahlberg<sup>6</sup> in 1946 completed a study concerned with the problem of the occupational choices of high school students and some of the salient factors affecting those choices. A vocational analysis questionnaire was submitted to 318 senior students at Modesto High School. Results of this study pointed to the need for a more realistic program of vocational guidance as social prestige and economic advancement seemed to be given first consideration by many students in making their occupational choices.

The writer felt that more opportunities should be provided for students to acquaint themselves with "(1) the most common occupations, the working conditions, income, opportunities available, trends, and mental and physical requirements for each; (2) the local job market, its present and future possibilities; (3) their own capabilities by means of objective tests and work experience."

Since the community has a responsibility to youth in the matter of acquainting them with job opportunities, it was recommended that a community guidance council be formed with representatives from the schools, service agencies, agriculture, business, industrial and professional groups to aid in giving information to students.

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<sup>6</sup> Alice Ahlberg, "A Study of the Occupational Choices of Senior Students at Modesto High School and Some of the Salient Factors Affecting Those Choices" (unpublished Master's thesis, College of the Pacific, Stockton, 1946) 161 pp.

A study completed by J. Kenneth Rowland<sup>7</sup> in 1949 had for its purpose to determine by means of a follow-up of former students how adequately Modesto Junior College had met the needs of its students. Questionnaires were sent to all former students who had attended the College in the ten-year period from 1937 to 1946.

Some of the questions asked of these former students are of significance in relation to this present study. For example, in the majority of cases, these former students came from homes within commuting distance of the college which would seem to indicate, according to Rowland, that the program of the College should fit the needs of the students from Modesto and the surrounding area. This investigation also showed that the majority of the alumni members continued to live in the same community or area after they finished school.

Vocational courses were listed by the majority of alumni as the ones which had been of most value to them. This fact would seem to indicate that the College program had met the needs of most of the alumni in the field of vocational preparation. The only criticism of these courses by the

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<sup>7</sup> J. Kenneth Rowland, "An Analytical Study of the Opinions of the Alumni of Modesto Junior College to Determine How Adequately the College Has Served Their Needs," (unpublished Master's thesis, Claremont Graduate School, Claremont, California, 1949) 181 pp.

alumni members was that in some cases instructors stressed theory and did not allow for enough practical application of the theory.

In answer to the question, "How did you secure your present job?", 30.3 per cent of the men got their jobs by direct application while only 10.3 per cent got their jobs through the College. Of the women, 21.7 per cent got their jobs by direct application while 5.4 per cent found employment through the College. Rowland stated that the manner in which these alumni members received their jobs would seem to indicate that there is a need for a more active placement service at the College.

The most severe criticism offered by the alumni members was that the College did not meet their needs for adequate educational and vocational guidance. Many of the former students thought that the areas of the curriculum dealing with family and community life were inadequate. One of the subjects which they thought students should be encouraged to take and which is in the field of business education was a course in consumer problems.

Many of the former students who had participated in extra-curricular activities felt that they had gained lasting benefits from their participation. Some of the women who responded said that participating in these activities had

helped them to develop poise and self-confidence.

San Joaquin Valley Study. An investigation was carried out by Earle P. Crandall<sup>8</sup> in 1946 which was directed toward discovering the qualities of the various vocational plans which high school students were making. He attempted to evaluate these plans in terms of probable occupational opportunities in the communities in which these students resided and in terms of a number of school and community relationships.

This study presented comparisons of occupational choices of eleventh grade high school pupils with occupational distributions of certain counties in California using as a basis for these comparisons data from the 1940 census. Thirty-nine schools from fifteen counties of the San Joaquin Valley, including Modesto High School, participated in this study.

As a result of his findings, Crandall came to the conclusion that from a fourth to a third of the high school pupils on the eleventh grade level in the San Joaquin area were not making a satisfactory adjustment to school if progress toward their occupational objectives was conceived of

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<sup>8</sup> Earle P. Crandall, "An Evaluation of the Occupational Plans of High School Pupils in the San Joaquin Valley," (unpublished Doctor's dissertation, Stanford University, Stanford, 1946) 175 pp.

as a fundamental function of the school. Both boys' and girls' preferences for professional and semi-professional careers exceeded all other choices. These pupils showed a decided preference for the jobs in the upper socio-economic bracket, and a decided lack of preference for jobs which are lacking in prestige.

Of all the girls studied, 32.15 per cent reported that they planned to enter the clerical occupations. Only 3.19 per cent of the boys planned to enter the occupational classification of clerical, sales, et cetera. However, in the part of this study dealing with the permanence of occupational choices, it was found that the boys and girls did a certain amount of shifting of plans as they became more mature.

### SUMMARY

Five surveys dealing with vocational problems have been conducted in Modesto in the last eighteen years. Two of them were concerned with securing occupational data and employers' opinions about training given in the schools; one with an evaluation of the Modesto High School cooperative part-time program; one with occupational choices of senior students at Modesto High School; and one with the opinions of the alumni members of Modesto Junior College to determine how adequately the College had served their needs.

Other surveys made in Central California which had some relationship to this present study were the city-wide occupational survey in Stockton, a sampling survey of offices in Sacramento, and a study of vocational plans of students from selected high schools in the San Joaquin Valley.

## CHAPTER III

### THE PROCEDURE

#### PURPOSE OF THE CHAPTER

The purpose of this chapter is to explain the procedure used in planning and carrying out this survey of one hundred selected business offices in Modesto. An explanation is given of the occupational titles used in this study, terms are defined, and the limitation of the study is stated. A brief description of the community in which this survey took place is included in this chapter.

#### METHOD OF PROCEDURE

The research procedure included (1) formulation of plans for the survey, (2) construction of a satisfactory questionnaire, (3) distribution of the questionnaire and the personal interviewing of the employer, (4) tabulating the data, (5) interpreting the results.

Formulation of plans for the survey. In making plans for the survey, current literature dealing with present trends in business education was read, similar surveys were examined, and plans were discussed with other business training instructors and administrators.



The interview method using a questionnaire seemed to be the best approach as it would provide an opportunity to visit local business offices, would enable the interviewer to explain the questionnaire to the employer to prevent misunderstandings as to the information wanted, and would give a complete response. By using the interview method more detailed opinions could be obtained than could be expressed in writing, and personal reactions could be observed.

Development of the questionnaire. A preliminary questionnaire was made and discussed with the members of the business training departments in both the Modesto High School and the Modesto Junior College. The questionnaire was then submitted to three office managers; and after they gave their suggestions, the questionnaire was revised. Then sample surveys were made to discover if there were ambiguities from the employers' viewpoint. After some minor revisions, the questionnaire<sup>1</sup> was found to be satisfactory for obtaining the information desired.

Distribution of the questionnaire. A list of one hundred business offices was made from the telephone and city directories. An attempt was made to get a representative

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1 Appendix A, pp. 123-126.

sampling of both large and small offices of many different types and representing different occupations. A list<sup>2</sup> has been made of the offices visited with the number of male and female workers employed. These same offices have been classified as to type<sup>3</sup> to show the variety of offices visited.

The interviewer called upon each employer, explained the purpose of the survey, and presented the questionnaire. In the smaller offices and in most of the larger offices the questionnaires were filled out immediately. However, in a few offices where a number of office workers were employed, the employers asked for more time; the questionnaires were left and mailed to the interviewer upon their completion. The actual interviewing was done over a period of six weeks.

#### DEFINITIONS OF TERMS USED

The titles of the occupations used in this study were taken from the Dictionary of Occupational Titles, Part II,<sup>4</sup> under the general heading of Clerical and Kindred Occupations. This group includes occupations concerned with the preparation,

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2 Table A, Appendix B, pp. 128-130.

3 Table B, Appendix B, p. 131.

4 Dictionary of Occupational Titles, Part II, Divisions of Standards and Research, Washington, D. C.: U. S. Government Printing Office, 1939.

transcribing, transferring, systematizing, or preserving of written communications and records in offices, shops, and other places of work where such functions are performed.

The term "office occupations" refers both to supervisory and non-supervisory jobs. However, the only supervisory job included in this study is that of office manager.

This investigation is limited to office occupations and does not go into the field of distributive occupations.

#### DESCRIPTION OF THE COMMUNITY STUDIED

Modesto, the county seat of Stanislaus County, is located in the center of California at the northern tip of the San Joaquin Valley nearly one hundred miles southeast of San Francisco and over three hundred miles north of Los Angeles. This section was first settled in 1870 by men engaged in stock raising and dry farming. With the coming of irrigation in 1904, the city of Modesto and the surrounding area increased rapidly in population. According to a special census taken in 1946, the population was estimated to be 18,403 while a 1949 estimate gives the population of the city as 22,000.

Stanislaus County now has an estimated population of 131,700. According to figures released by the California Taxpayers Association in their 1949 report, the population of this county has increased 75.9 since the 1940 census.

Stanislaus County receives the greatest share of its income from agricultural products. It ranks ninth in all counties of the United States in total farm income. It ranks first in turkey production and stands very high in the production of cattle, grapes, tomatoes, truck crops, tree fruits, and dairy products. Most of the industry of the county is centered around the processing of agricultural products. There are a number of large fruit packing, canning, and dehydrating plants; several frozen food packaging firms; and two large milk processing plants.

The school system of Modesto consists of twelve elementary schools with two additional schools under construction. A new high school, being built at the present time, will relieve the crowded conditions at the Modesto High School, which now has nearly three thousand pupils enrolled.

The next unit in the Modesto school system is the Modesto Junior College with an approximate enrollment of twelve hundred students. The College offers training to four groups of students: the academic students who wish to continue their education at a four-year college or university; the technical students who want to prepare for semi-professional fields involving technical training; the trade students who wish basic training in skilled trades; and those students who do not belong in any of the foregoing categories but who wish

to acquire more experience in general education. The ten major divisions of the college curricula are as follows: agriculture, business training, literature and language arts, home economics, mathematics and engineering, music, physical education and hygiene, science, social science, and trades and industries.

The last unit in the Modesto school system is the Modesto Evening Junior College with an enrollment of approximately three thousand students. A wide variety of courses is offered to the adults of the community including the following courses which prepare for office occupations: book-keeping, typewriting, shorthand, business mathematics, and business English.

#### SUMMARY

The method of procedure in planning and carrying out this survey was explained in this chapter. Also included were definitions of terms used, the limitations of the study, and a brief description of the community in which the survey took place.

## CHAPTER IV

### OCCUPATIONAL DATA CONCERNING EMPLOYMENT OPPORTUNITIES IN ONE HUNDRED SELECTED BUSINESS OFFICES IN MODESTO

#### PURPOSE OF THE CHAPTER

The purpose of this chapter is to present occupational data concerning the number of employees in the offices studied, their educational training, length of service, previous experience, age groupings, and the additions and replacements that have taken place in these occupations during the past year.

#### CLASSIFICATION OF EMPLOYEES IN OCCUPATIONAL GROUPS

The 513 office employees included in this survey have been classified into fifteen occupational groups according to Table I with one miscellaneous classification which included such jobs as pricing clerks, credit clerks, record clerks, IBM operators, and service representatives.

For purposes of job-classification in this study, each employee was classified according to the type of work he did most frequently. It was found in a number of the jobs studied that there were frequent combinations of skills necessary. The occupation of bookkeeper often required, in addition to a knowledge of record keeping, the ability to

TABLE I

DISTRIBUTION OF EMPLOYEES OF ONE HUNDRED MODESTO  
BUSINESS OFFICES ACCORDING TO OCCUPATION AND SEX

Positions	No. of males	No. of females	Total	Per cent
Bookkeeper	14	76	90	17.6
Machine bookkeeper	2	23	25	4.9
Cal. mach. operator	0	2	2	.4
Cashier	0	27	27	5.3
Duplicating clerk	0	3	3	.5
Filing clerk	0	3	3	.5
General clerk	14	76	90	17.6
Office manager	28	13	41	8
Payroll clerk	3	6	9	1.8
Receptionist	0	13	13	2.5
Secretary	0	54	54	10.5
Stenographer	0	51	51	9.9
Switchboard operator	0	11	11	2.2
Transcription operator	0	3	3	.5
Typist	0	42	42	8.2
Miscellaneous	17	32	49	9.6
Totals	78	435	513	100.0

type and to operate calculating machines. Frequently bookkeepers were required to be able to take and transcribe shorthand.

Typists were required to operate calculating and duplicating machines and to do filing. The general clerk performed such miscellaneous duties as typing, filing, keeping simple records, and operating calculating machines. The switchboard operator oftentimes acted as receptionist and also did some typing. In some cases the office manager served as head bookkeeper or as a secretary. In a few offices stenographers were required to operate the Ediphone or Dictaphone machine as well as to take and transcribe their shorthand notes. The cashier in some instances had a number of miscellaneous office duties to perform.

In some of the job-classifications given in Table I, there were very few employees listed. For example, out of the 513 employees studied, two were listed as calculating machine operators, three as transcription machine operators, and three as duplicating clerks. This does not mean that these were the only employees performing these kinds of tasks. It does indicate that in the smaller type of office, typical of Modesto, the work of the office employee is not highly specialized and that the broader classification of general clerk or typist or bookkeeper is used to designate the person who performs a variety of tasks.



Of the 513 jobs listed in Table I, ninety or 17.6 per cent of them were bookkeeping jobs with seventy-six or 84.4 per cent of the workers being women and fourteen or 15.6 per cent being men. The jobs ranged from simple record keeping to head bookkeeping jobs. Auditors and accountants were not included in this investigation as these jobs are usually considered professional in character. In the small offices the bookkeeper was usually responsible for the complete bookkeeping operation while in the larger offices each bookkeeper was assigned certain divisions of the operation.

The figures for the job of general clerk were the same as those for bookkeeper with ninety people or 17.6 per cent employed in this classification with 84.4 per cent of them being women and the remaining 15.6 per cent being men. In most cases these general clerical workers performed routine duties under supervision, doing such work as typing letters, filing, compiling data, keeping simple records, making appointments, giving information, and in general, assisting in the work of the office. In this group as in the bookkeeping group there was found a wide range in the skill required and in the responsibilities of the job.

The next largest group was in the secretarial classification. There were fifty-four women in this category or 10.5 per cent of the total, closely followed by the job of

stenographer in which fifty-one women were employed or 9.9 per cent of the total. There is a considerable distinction between the job of secretary and stenographer according to the job descriptions in the Dictionary of Occupational Titles. However, it was found that in some of the offices visited the terms were used synonymously, which accounts for the fact that more secretaries were listed than stenographers since the former is a higher ranking job.

In these two classifications there is also a wide range of skill demanded. Some of those workers who were listed as secretaries acted more in the capacity of receptionist using very little shorthand while other secretarial jobs required a high level of stenographic skill.

The number of typists listed seemed low being 8.2 per cent of the total or fifty-two persons. However, in many cases typists were classified as general clerks because they had a variety of duties to perform in addition to typing.

The only classification in which men exceeded women was in that of office manager. Of the one hundred offices visited, forty-one of them had office managers. In this group, twenty-eight of the office managers or 68.3 per cent were men and thirteen or 31.7 per cent were women.

## BUSINESS TRAINING OF EMPLOYEES

Table II shows the number of office employees who received their business training in high school, junior college, business college, college, or on the job. In some cases it was difficult to obtain complete and accurate information as to the business training of the office help. There was a reticence on the part of a few employers to discuss the business training of their employees, and in a few of the large offices the information was not available. As a result, there were sixty-five employees out of the 513 whose educational training could not be obtained. The data on percentages in Table II were based on a total of 448 employees.

There were instances of employees who received business training at both Modesto High School and Modesto Junior College and of employees who were college graduates who got their start in business training in local schools. However, in this study, the school in which most of the commercial work was taken has been the one which was recorded.

Also shown in Table II are the percentages of employees receiving their business training in high school, junior college, business college, college, or on the job. Out of the 448 employees, 48.6 per cent received their business training in high school. This would seem to indicate that

TABLE II

OFFICE EMPLOYEES FROM ONE HUNDRED SELECTED BUSINESS  
FIRMS IN MODESTO CLASSIFIED AS TO WHERE THEIR BUSINESS  
TRAINING WAS OBTAINED

	High School	Junior College	Business College	College	Training on the job	Training not known	Totals
Bookkeeper	35	12	29	2	0	12	90
Mach. bookkeeper	5	3	2	0	12	3	25
Cal. mach. op.	0	0	0	0	0	2	2
Cashier	15	1	1	1	7	2	27
Duplicating clerk	1	1	0	0	0	1	3
Filing clerk	3	0	0	0	0	0	3
General clerk	52	15	8	3	0	12	90
Office manager	9	7	5	14	0	6	41
Payroll clerk	4	1	0	0	0	4	9
Receptionist	8	2	2	0	0	1	13
Secretary	20	9	15	4	0	6	54
Stenographer	20	11	18	0	0	2	51
Switchboard op.	4	0	0	0	5	2	11
Trans. operator	2	0	1	0	0	0	3
Typist	22	8	10	0	0	2	42
Miscellaneous	18	10	3	6	2	10	49
Totals	218	80	94	30	26	65	513
Totals in per cent	48.6	17.9	21.0	6.7	5.8		

many of the high school students got jobs as soon as they finished high school. The availability of jobs brought about by the recent war may help to account for this high percentage. The ease with which high school graduates have been able to secure jobs in offices may help to explain why more young people, especially girls, have not been going on to junior college.

This study does show, however, that of the 448 office employees listed, 45.6 per cent received most of their business training beyond their high school years; 17.9 per cent having attended junior college; 21 per cent, business college; and 6.7 per cent, a four-year college or a university. The 5.8 per cent who are listed as receiving their training on the job are employed for the most part as machine bookkeepers in banks, cashiers, or switchboard operators and had taken very few, if any, business courses in school.

Table III is of interest because it shows the number and the percentages of the employees in each occupation who were trained in high school, junior college, business college, four-year college, or on the job. In this table percentages have been omitted for those occupations in which fewer than twenty people were employed.

The job of general clerk was the one in which the highest percentage of high school trained employees were

TABLE III

COMPARISON OF PERCENTAGES OF  
EMPLOYEES IN DIFFERENT OCCUPATIONS CLASSIFIED AS TO  
WHERE BUSINESS TRAINING WAS OBTAINED

Positions	High School		Junior College		Business College		College		Training on the job		
	No.	%	No.	%	No.	%	No.	%	No.	%	Total
Bookkeeper	35	44.9	12	15.4	29	37.2	2	2.5	0	-	78
Mach. bookkeeper	5	22.7	3	13.6	2	9.1	0	-	12	54.5	22
Cal. mach. op.	0	-	0	-	0	-	0	-	0	-	0
Cashier	15	60.0	1	4.0	1	4.0	1	4.0	7	28.0	25
Duplicating clerk	1	-	1	-	0	-	0	-	0	-	2
Filing clerk	3	-	0	-	0	-	0	-	0	-	3
General clerk	52	66.7	15	19.2	8	10.3	3	3.8	0	-	78
Office manager	9	25.7	7	20.0	5	14.3	14	40.0	0	-	35
Payroll clerk	4	-	1	-	0	-	0	-	0	-	5
Receptionist	8	-	2	-	2	-	0	-	0	-	12
Secretary	20	41.7	9	18.7	15	31.2	4	8.4	0	-	48
Stenographer	20	40.8	11	22.4	18	36.8	0	-	0	-	49
Switchboard op.	4	-	0	-	0	-	0	-	5	-	9
Transcription op.	2	-	0	-	1	-	0	-	0	-	3
Typist	22	55.0	8	20.0	10	25.0	0	-	0	-	40
Miscellaneous	18	46.2	10	25.6	3	7.7	6	15.4	2	-	39
Totals	218		80		94		30		26		448

Note: This table should read as follows: Of the 78 bookkeepers classified as to where their business training was obtained, 35 or 44.9 per cent of them received their business training in high school.

found. According to these data 66.7 per cent of the people in this classification had received their training in high school. Sixty per cent of the cashiers listed and 55 per cent of the typists listed were high-school trained. Almost half or 46.2 per cent of the employees coming under the miscellaneous classification had their training in high school. In this group are the service representatives, a job peculiar to the telephone company, in which the employees are concerned with keeping simple records and in serving the public.

It was found that 55.1 per cent of the bookkeepers had their business training beyond high school, and this was also true of 58.3 per cent of the secretaries and 59.2 per cent of the stenographers. The job in which the highest percentage of employees had training beyond high school was that of office manager with 20 per cent having had their training at junior college; 14.3 per cent, training at business college; and 40 per cent, training at a four-year college.

Table IV shows the number of office employees who received their business training in the Modesto schools. Out of 448 employees whose training record was known, 182 stated that their training was received locally while 266 were trained outside of Modesto. Of those who were locally trained, eighty-seven or 19.4 per cent received their training at

TABLE IV

CLASSIFICATION OF EMPLOYEES FROM ONE HUNDRED SELECTED  
BUSINESS OFFICES WHO HAVE RECEIVED  
BUSINESS TRAINING IN MODESTO SCHOOLS

	Modesto High School	Modesto Junior College	Modesto Business College	Total number of employees studied
Bookkeeper	9	8	11	78
Machine bookkeeper	2	2	1	22
Cal. mach. op.	0	0	0	0
Cashier	10	1	0	25
Duplicating clerk	0	1	0	2
Filing clerk	3	0	0	3
General clerk	21	12	4	78
Office manager	3	5	1	35
Payroll clerk	2	1	0	5
Receptionist	3	2	1	12
Secretary	12	7	8	48
Stenographer	6	10	3	49
Switchboard op.	2	0	0	9
Transcription op.	2	0	0	3
Typist	5	7	1	40
Miscellaneous	7	7	2	39
Totals	87	63	32	448
Totals in per cent	19.4	14.1	7.2	

Note: This table should read as follows: Of the 78 bookkeepers classified as to where their business training was obtained, 9 of them received their business training at Modesto High School; 8, at Modesto Junior College; 11, at Modesto Business College.



Modesto High School; sixty-three or 14.1 per cent, at Modesto Junior College; and thirty-two or 7.2 per cent, at the local business college.

Table V shows a comparison in the percentages of office employees receiving their training locally or outside of Modesto. Of the employees studied, 46.5 per cent were trained either at Modesto High School, Modesto Junior College, Modesto Business College, or received their training on the job. The remaining 53.5 per cent had their training outside of Modesto. Out of the 48.6 per cent who had received their business training in high school, 19.4 per cent were trained at Modesto High School and 29.2 per cent from outside high schools. In this latter group, some of the workers were trained at high schools in nearby towns such as Hughson, Turlock, and Oakdale; but the majority of this group received their training in high schools out of the state with many of them coming from the Middle West. The increase in population in Modesto brought about by the influx of people from other states may help to account for the large number of office employees who have not been trained in the local high school.

The same situation existed in regard to the employees who had received business college training. Only 7.2 per cent of the employees studied took their training at the local business college while 13.8 per cent had their training at outside business colleges.

TABLE V

COMPARISON OF PERCENTAGES OF OFFICE EMPLOYEES  
RECEIVING THEIR TRAINING LOCALLY OR  
OUTSIDE OF MODESTO

Institution	Local training	Outside training	Total
High school	19.4	29.2	48.6
Junior college	14.1	3.8	17.9
Business college	7.2	13.8	21.0
College	-	6.7	6.7
Training on the job	5.8	-	5.8
Totals	46.5	53.5	100.0

The situation was different, however, in regard to junior college training. Here out of the 17.9 per cent of the employees who had received business training on the junior college level, 14.1 per cent attended Modesto Junior College, while only 3.8 per cent received their training at outside junior colleges. Again the recent increase in population seems to influence these figures. Many of the people employed in the offices surveyed had come from states where there are very few junior colleges; and as a result, their business training had to be obtained in high school or in business college.

#### LENGTH OF SERVICE OF OFFICE EMPLOYEES

Table VI shows the employees studied classified as to the number of years they have been on their present jobs. Information as to length of service could not be obtained for 31 of the 513 employees; therefore the percentages in the table are based on 482 employees.

Of these 482 employees, 122 or 25.3 per cent had been on their jobs for less than one year. Ninety-seven or 20.1 per cent had been on their jobs from one to two years. Eighty or 16.6 per cent had held their jobs from two to three years. Fifty-four or 11.2 per cent had been on their jobs from three to four years. Only seventeen or 3.5 per cent had been on

TABLE VI

CLASSIFICATION OF EMPLOYEES FROM ONE HUNDRED SELECTED  
BUSINESS OFFICES IN MODESTO AS TO THE NUMBER OF YEARS THEY  
HAVE BEEN ON THEIR PRESENT JOBS

	Less than 1 year	1 to 2 yrs.	2 to 3 yrs.	3 to 4 yrs.	4 to 5 yrs.	5 to 10 yrs.	10 to 15 yrs.	15 to 20 yrs.	Over 20 yrs.	Total
Bookkeeper	13	15	18	10	2	15	6	7	1	87
Mach. bookkeeper	2	7	8	5	0	2	0	0	0	24
Cal. mach. op.	1	1	0	0	0	0	0	0	0	2
Cashier	7	3	7	3	1	3	0	1	0	25
Duplicating clerk	1	0	1	0	0	1	0	0	0	3
Filing clerk	2	1	0	0	0	0	0	0	0	3
General clerk	27	18	11	8	5	10	5	2	0	86
Office manager	6	4	5	2	1	6	6	2	3	35
Payroll clerk	1	1	1	0	2	0	1	1	0	7
Receptionist	5	2	3	2	0	1	0	0	0	13
Secretary	10	15	6	7	2	11	0	0	1	52
Stenographer	15	12	5	11	1	2	1	0	0	47
Switchboard op.	4	3	2	1	0	0	1	0	0	11
Transcription op.	0	1	1	0	0	0	0	0	0	2
Typist	15	9	8	2	2	4	1	1	0	42
Miscellaneous	14	5	3	3	1	9	3	2	3	43
Totals	122	97	80	54	17	64	24	16	8	482
Totals in per cent	25.3	20.1	16.6	11.2	3.5	13.3	5.0	3.3	1.7	100.0

their jobs from four to five years. There were sixty-four or 13.3 per cent of the employees who had held their jobs from five to ten years; twenty-four or 5 per cent, from ten to fifteen years; sixteen or 3.3 per cent, from fifteen to twenty years; and eight or 1.7 per cent beyond twenty years.

Table VII is concerned with the number of replaced and added office employees for a one-year period and the percentage of turnover in each position. Of the 122 employees who had been on their jobs for less than one year, ninety-five of them or 19.7 per cent represented replacements and twenty-seven or 5.6 per cent represented new jobs which had opened up during the year.

The biggest turnovers in relation to the number of people employed in these classifications were in the jobs of receptionist, switchboard operator, typists, miscellaneous jobs, stenographers, and general clerks. All of the jobs listed above had a turnover of over 30 per cent. Jobs in which the turnover was less than 20 per cent were machine bookkeeper, bookkeeper, office manager, and secretary. In the jobs in which the turnover was less, it is interesting to note how long some of these employees had stayed on the job. For example, twenty-nine or 33.4 per cent of the bookkeepers had been on their jobs over five years; seventeen or 48.6 per cent of the office managers had been on their jobs over five

TABLE VII

NUMBER OF REPLACED AND ADDED OFFICE EMPLOYEES  
FOR A ONE-YEAR PERIOD AND PERCENTAGE  
OF TURNOVER IN EACH POSITION\*

	Total employees	Replaced No.	%	Added No.	%	Rate of turnover
Bookkeeper	87	9	10.3	4	4.6	14.9
Mach. bookkeeper	24	2	8.3	0	-	8.3
Cal. mach. op.	2	1	-	0	-	-
Cashier	25	6	24.0	1	4.0	28.0
Duplicating clerk	3	1	-	0	-	-
Filing clerk	3	1	-	0	-	-
General clerk	86	20	23.3	7	8.1	31.4
Office manager	35	4	11.4	2	5.7	17.1
Payroll clerk	7	1	-	0	-	-
Receptionist	13	4	30.8	1	7.7	38.5
Secretary	52	8	15.4	2	3.8	19.2
Stenographer	47	10	21.3	5	10.6	31.9
Switchboard op.	11	2	18.2	2	18.2	36.4
Transcription op.	2	0	-	0	-	-
Typist	42	12	28.6	3	7.1	35.7
Miscellaneous	43	14	32.6	0	-	32.6
Total	482	95	19.7	27	5.6	25.3

\* Percentages have been omitted for those jobs in which fewer than ten people were employed.

years; and twelve or 23.1 per cent of the secretaries had been on their jobs over five years.

In connection with Table VI, page 43, it is significant that 76.8 per cent of the 482 employees had been on the job for less than five years.

#### EXPERIENCED AND NONEXPERIENCED HELP IN OFFICE OCCUPATIONS

Table VIII shows the classification of the employees being studied as to previous experience in office work. Information as to past experience was obtained for 479 employees; 319 or 66.6 per cent had had previous experience, and 160 or 33.4 per cent had not had previous experience. Jobs in which employees having previous experience predominated were bookkeeper, office manager, secretary, stenographer, typist, and miscellaneous jobs. Jobs in which the proportion of experienced and inexperienced help was about equal were those of general clerk, receptionist, and switchboard operator. Jobs in which the majority of the employees were inexperienced were machine bookkeeper and cashier.

#### OFFICE EMPLOYEES CLASSIFIED INTO AGE GROUPS

Table IX, page 48, shows the classification of office employees of one hundred selected business offices into age groups. Of the 432 employees for whom information was

TABLE VIII

CLASSIFICATION OF EMPLOYEES IN ONE HUNDRED SELECTED  
BUSINESS OFFICES AS TO PREVIOUS EXPERIENCE  
IN OFFICE WORK

	Previous experience	No previous experience	Total of employees reported
Bookkeeper	60	25	85
Mach. bookkeeper	9	15	24
Cal. mach. operator	2	0	2
Cashier	10	14	24
Duplicating clerk	2	1	3
Filing clerk	1	2	3
General clerk	44	45	89
Office manager	33	4	37
Payroll clerk	5	2	7
Receptionist	7	6	13
Secretary	40	11	51
Stenographer	38	9	47
Switchboard op.	5	6	11
Transcription op.	2	1	3
Typist	28	11	39
Miscellaneous	33	8	41
Totals	319	160	479
Totals in per cent	66.6	33.4	100.0



TABLE IX

CLASSIFICATION OF OFFICE EMPLOYEES OF ONE HUNDRED  
SELECTED BUSINESS OFFICES INTO AGE GROUPS

	Under 25	Between 25 and 50	Over 50	Not known
Bookkeeper	26	44	6	14
Machine bookkeeper	16	8	-	1
Calculating machine op.	1	1	-	-
Cashier	16	6	-	5
Duplicating clerk	2	1	-	-
Filing clerk	1	2	-	-
General clerk	36	25	9	20
Office manager	3	25	4	9
Payroll clerk	2	5	-	2
Receptionist	7	4	1	1
Secretary	19	29	-	6
Stenographer	26	20	1	4
Switchboard op.	6	3	-	2
Transcription op.	1	2	-	-
Typist	18	15	4	5
Miscellaneous	15	19	3	12
Totals	195	209	28	81
Totals in per cent	45.1	48.4	6.5	

obtained regarding ages, 195 or 45.1 per cent were under 25 years of age; 209 or 48.4 per cent fell in the 25-to-50 age group; and 28 or 6.5 per cent were in the age group over 50. Jobs in which the young people predominated were those of bookkeeper, cashier, general clerk, receptionist, stenographer, switchboard operator, and typist. Jobs in which the majority of employees fell in the 25-to-50 age group were those of bookkeeper, office manager, payroll clerk, and secretary.

## SUMMARY

An attempt has been made in this chapter to present occupational data concerning employment opportunities in one hundred selected business offices in Modesto. There were 513 employees reported in this survey of which 435 or 84.8 per cent were women. The only job in which men employees exceeded women was in the job of office manager. These 513 employees were classified into sixteen kinds of jobs. It was found that in a number of the job classifications there were frequent combinations of skills necessary and that in many of these job classifications there was a wide range in the skill required and in the responsibilities of the job.

More people were employed as bookkeepers and general clerks than in any of the other office occupations. Secretaries, stenographers, and typists were next in order.

In regard to the business training these employees received, 48.6 per cent of them obtained their training in high school; 45.6 per cent, in junior college, business college, or in a four-year college; and 5.8 per cent had on-the-job training. Jobs in which employees with high school training predominated were cashier, general clerk, and typist. Jobs in which employees who had their business training beyond high school predominated were bookkeeper, office manager, secretary, stenographer, and miscellaneous office jobs.

Of all the employees studied, 46.5 per cent were trained locally, whereas 53.5 per cent received their training outside of Modesto. Of those locally trained, eighty-seven or 19.4 per cent received their training at Modesto High School; sixty-three or 14.1 per cent, at Modesto Junior College; thirty-two or 7.2 per cent, at the local business college; and twenty-six or 5.8 per cent had training on the job.

In respect to length of service of office employees, 25.3 per cent had been on their jobs less than one year; 19.7 per cent of these jobs represented replacements and 5.6 per cent represented new jobs. The biggest turnovers were in the jobs of receptionist, switchboard operator, typist, miscellaneous jobs, stenographers, and general clerks. Jobs in which the turnover was less than 20 per cent were machine bookkeeper, bookkeeper, office manager, and secretary. Of the 482 employees studied in regard to length of service, 76.8 per cent had been on the job for less than five years.

In classifying the employees as to previous experience it was found that 66.6 per cent of the employees had had some previous experience and 33.4 per cent were inexperienced. Jobs in which employees having some experience predominated were bookkeeper, office manager, secretary, stenographer, typist, and miscellaneous jobs. Jobs in which the proportion of experienced and inexperienced help was just about equal were those of general clerk, receptionist, and

switchboard operator. Jobs in which the majority of the employees were inexperienced were machine bookkeeper and cashier.

The largest number of office employees studied fell into the 25-to-50 group with 48.4 per cent in this classification. This group was closely followed by the under-25 group with 45.1 per cent in this classification. Only 6.5 per cent of the employees studied were in the over-50 group. Jobs in which the young people predominated were bookkeeper, cashier, general clerk, receptionist, stenographer, switchboard operator, and typist. Jobs in which the majority of employees fell in the 25-to-50 age group were bookkeeper, office manager, payroll clerk, and secretary.

## CHAPTER V

### EMPLOYERS' ATTITUDES TOWARD EMPLOYEES TRAINED IN THE MODESTO PUBLIC SCHOOLS

#### PURPOSE OF THE CHAPTER

The purpose of this chapter is to determine what the employers' attitudes are toward employees trained in the Modesto public schools. Where do employers seek new office help? Are local businessmen aware of and are they using the school placement service? What office jobs do businessmen find most difficult to fill? Are employers willing to hire beginners from local public schools for part-time and full-time help? Do employers find it necessary to have a training program of their own for their new office employees? Of what importance are school grades, attendance and tardy records, recommendations, and scores on aptitude tests to the employer? What are the employers' opinions concerning the quality of the office training given by the local schools and what suggestions can they make regarding ways in which the schools could improve their instruction in the development of office skills and personal characteristics?

#### SOURCES FOR NEW EMPLOYEES

In this study employers were asked what sources they

used in securing new office help. Table X shows the response made to this question. Some employers stated that they used several sources; for example, a number of employers used the school placement bureau and also the state and private employment agencies. Others stated that, if possible, they preferred to select new employees from applications made directly to them; but, if this source failed, they would apply to the schools.

Forty-two businessmen stated that they used the employment agencies as a source for new employees; thirty-eight, the school placement bureau; and twenty-three, the local business college. Newspaper advertisements were used by twenty of the employers; and other sources, such as obtaining new employees through friends or by direct applications of persons interested, were used by thirty-five employers.

In some cases, businessmen or office managers were not aware of the fact that the schools had a placement program and were quite interested in learning that they could call upon the public schools when they needed new employees.

A few businessmen were not interested in employing students who were just out of school as they were too immature and would not take their jobs seriously. These employers said that they were able to secure the type of workers they desired through the employment agencies.

TABLE X

SOURCES USED BY MODESTO EMPLOYERS IN  
OBTAINING NEW EMPLOYEES

Sources	Number of employers using this source
Employment agencies	42
Local public schools	38
Local business college	23
Newspaper advertising	20
Other sources	
Applications made directly	23
Friends	12



## OFFICE JOBS MOST DIFFICULT TO FILL

In answer to the question "What office jobs do you find most difficult to fill?", twenty-one employers stated that they had the most difficulty finding bookkeeper-stenographers. This was particularly true in small offices in which the bookkeeper was required to do some stenographic work. Sixteen employers said that they had a need for well-trained, experienced bookkeepers and had trouble finding them. Stenographic jobs were hard to fill according to fourteen employers, and capable, experienced secretaries were very scarce according to ten employers.

Six employers said that it was difficult to find workers who had received thorough training in the use of duplicating machines and five employers had trouble finding machine transcription operators. Several of the businessmen interviewed stated that they would like to use the Ediphone or Dictaphone equipment but could not find trained operators.

In answering this question concerning the office jobs which were the most difficult to fill, local businessmen emphasized the fact that there was no dearth of people applying for these jobs, but often their training and ability were not adequate enough for them to perform the jobs in a satisfactory manner. This condition was especially true for the higher bracket jobs.

## OPPORTUNITIES FOR FULL-TIME AND PART-TIME JOBS

Local businessmen showed by their answers to the question "Are you willing to hire beginners from local schools?" that they would cooperate with the schools in trying to place former students. There were forty-six employers who said that they would be willing to hire beginners from local schools for full-time jobs while twenty additional employers stated that there were some jobs in their firms which could be filled by locally trained beginners. Twenty-three employers said they were not interested in hiring beginners as a rule because they needed office workers who were experienced.

Out of the one hundred business offices visited, twenty-eight of them had occasion to use some part-time help. Most of the part-time office jobs were found in firms that are especially busy at certain times of the year. During the harvest season, such firms as turkey processing plants or bean storage plants require extra help. Community organizations, such as the Chamber of Commerce and the Red Cross, have need for part-time help at certain times of the year. A few of the automobile and truck dealers said that they could use part-time help during the summer months. School offices take advantage of student part-time help throughout the school year.

## TRAINING PROGRAMS GIVEN IN LOCAL OFFICES

In answer to the question "Do you have a training program of your own?", twenty office managers or employers said that they did have some kind of a definite training program.

For example, the Pacific Telephone and Telegraph Company gave each new office employee three months of class training in preparation for the job assigned. A different type of training program was that given by the banks. Here beginners were sponsored by an experienced person who worked with the newcomer, orienting him for a period of approximately thirty days. In-service training was also given by the banks through night school courses offered by the American Institute of Banking. The state and county offices provided induction and continuous on-the-job training, in many cases taking advantage of the adult training classes offered by the public schools.

Where instruction on special machines such as the IBM Machine and the Varsityper was involved, occasionally employees were sent away to larger cities for complete instruction and training. In those offices in which specialized work dealing with law enforcement, medicine, insurance, et cetera was carried on, a considerable training period was required for the new office worker to learn the technical vocabulary and other peculiarities of the job. This training was usually given by other employees.

In some offices a continuous training program was taking place because it was necessary that the office workers be trained to do all the jobs in the office. Other employees said that while they did not have a definite training program, new employees had to go through a certain adjustment period in which they learned the office routine.

Although the period of training varied from a few hours to six months in different offices, employers were unanimous in stating that thorough training in the schools aided in shortening the training period in the office.

#### QUALITY OF OFFICE TRAINING GIVEN BY THE PUBLIC SCHOOLS

When employers were asked how well they thought those workers who took their business courses in the local public schools were trained, forty-two thought that the training had been good for the most part. Twenty-five of the employers said that the training had been fair, and ten employers said that the training had been poor. However, most of the businessmen who found fault with the school training admitted that they had most of their difficulty during the war years when they were willing to take students whose business training had not been completed and who had not been recommended by their instructors. Other employers said they did not feel qualified to make comments because most of their employers had had previous experience.

Some of the employers not only graded the training as good, fair, or poor but gave added comments. A sampling of such responses representing a variety of opinions is given below:

The secretaries and clerks on our staff seem to have received enough good background training so that they were able to work into very satisfactory and valuable employees.

Your students have been well trained but lack confidence in their own ability.

Training in the skill subjects is fairly satisfactory, but we are not satisfied with the employees' application of these skills.

The training received in our schools has been good, but success on the job depends to a great extent on personal characteristics, which are in many cases weak.

The school training is good as far as an over-all business background is concerned, but students still have a great deal to learn before they become experts on the job.

Too many of your students apply for office work when they haven't had enough office training. One semester of typing and one semester of bookkeeping does not qualify a student to work in an office; yet many of them seem to think that is sufficient training. Urge your students interested in business to take a complete commercial course.

It is difficult to judge the training given by the schools because so much depends on the individual.

From a psychological standpoint students' training has been poor. They are not interested in giving their best on the job.

There is nothing wrong with the instruction given in the schools. The fault is in the lack of seriousness on the part of the student.

We have found the training in the local schools to be satisfactory, but we hire only those students who come to us highly recommended. The judgment of your instructors has been excellent in recommending students for jobs with our firm.

Our employees who were trained locally show evidence of having had extensive, thorough instruction.

The training is fine as far as it goes, but it cannot give the student the feeling of responsibility toward his position; it takes a few more years and some experience to acquire that.

The training has been very good, and we find that your former students handle their jobs well with a little coaching.

#### VALUE OF SCHOOL RECORDS TO EMPLOYERS

Employers answered the question "Of what importance do you consider school grades, attendance and tardy records, recommendations, and scores on aptitude tests?" in different ways. Twenty-five employers said that they had never had access to such information and had no comment to make concerning the importance of it. Fourteen employers said that they felt all of these records were of great importance and that they would like to have all of this information made available to them when locally trained applicants were applying for jobs. Ten employers took an opposite point of

view in declaring that such records were of little or no importance to them. These employers said they preferred to judge the applicant on personality, appearance, and a try-out on the job.

Some of the employers checked the four different kinds of records in order of their importance. These responses have been given in Table XI. Not all of the respondents checked all four items; this fact accounts for the discrepancy in the totals.

Eighteen employers felt that recommendations given by school personnel were of first importance, and eight employers considered this type of record as second in importance. Some employers remarked that they had found recommendations given by the school instructors to be trustworthy; however they attached very little importance to "To Whom It May Concern" recommendations, and some said they were skeptical of recommendations from other employers.

School grades were rated first in importance by seventeen employers and in second place by eight employers. From comments made by some of the employers interviewed it would appear the the "A" student did not necessarily make the best office worker. Several employers remarked that they preferred the student of average ability because he could adjust himself better to the routine type of work found in offices.

TABLE XI

IMPORTANCE OF SCHOOL RECORDS TO THE  
ONE HUNDRED EMPLOYERS INTERVIEWED

Records	Order of importance				Total
	1	2	3	4	
School grades	17	8	8	5	38
Recommendations	18	8	5	3	34
Attendance and tardy records	10	12	6	4	32
Scores on aptitude tests	3	4	4	3	14



Ten employers ranked attendance and tardy records in first place and twelve placed these records in second place in regard to importance. Regularity in attendance was especially stressed by employers in offices where the work was specialized in nature and could not be readily done by other employees.

Most of the businessmen were not familiar with aptitude tests; consequently many of them did not check this item. Only three employers checked scores on aptitude tests as being first in importance, and four employers rated them as second in importance.

#### EMPLOYERS' SUGGESTIONS FOR IMPROVING BUSINESS TRAINING

Employers in answering the question "In what ways could the schools better prepare students for office jobs with your concern?" gave a variety of responses. For convenience these responses will be listed in two different tables. In Table XII are listed the subjects which employers felt should be stressed more in the schools.

One of the most common criticisms that businessmen made of their young office employees was that they lacked proficiency in arithmetic, spelling, vocabulary, penmanship, English, and reading comprehension. The subject mentioned most frequently by employers as needing more emphasis was arithmetic.

TABLE XII

OPINIONS OF LOCAL OFFICE EMPLOYERS AS TO THE BUSINESS  
SUBJECTS WHICH NEED MORE EMPHASIS IN THE SCHOOLS

Subjects	Frequency
Arithmetic fundamentals	38
Spelling	29
Personal relationships	24
Applying for a job	22
Penmanship	21
Salesmanship	18
Office etiquette	18
English fundamentals	18
Filing	16
Public speaking	16
Office practice	13
Reading comprehension	13
Speed and accuracy on office machines	13
Business correspondence	12
Telephone techniques	11
Practical bookkeeping	11
Shorthand transcription	10
Speed and accuracy development in typing	10
Proofreading	8
Cutting stencils and preparing master copies	8
Consumer problems	8
Use of business forms in typing	7
Proper care of the typewriter	6
Business vocabulary	6
Business law	6
Installment buying	6
Operation of various duplicating machines	6
Insurance	5
Shortcuts in typing	4
More practice in the typing of numbers	4
Statistical typing	3
Letter placement	3
Machine transcription	3
Use of reference material	3
Accounting	2

Thirty-eight employers stated that they felt the schools should give more thorough training in arithmetic fundamentals, including mastery of addition, subtraction, multiplication, division, and a working knowledge of decimals, percentages, weights and measures, discount, and interest. It was suggested that training be given in the correct way to make change and in doing simple calculations mentally rather than with paper and pencil. Several employers asked that students be trained to make legible figures and to work in a neat and orderly manner.

Spelling was the next subject listed by the businessmen as being in need of improvement. Twenty-nine employers suggested that more training should be given in spelling. The complaints concerning weaknesses in spelling came principally from those offices where there was considerable stenographic work being done. Closely connected with spelling was the need for training in proofreading mentioned by eight employers and the need for development of a workable business vocabulary mentioned by seven employees. A number of office managers stated that for the first three or four months it was necessary to supervise very closely all letters and other written materials prepared by new employees because they seemed to be unaware of and incapable of finding their own errors. It was suggested that a great deal more effort be put forth

in training the students to recheck their work for errors in spelling and for errors in word meanings.

Twenty-four businessmen mentioned the need for more attention to training young people in the art of getting along with their fellow workers, their employers, the customers of the firm, and other people in general. Some of these employers suggested that a short course in personal relationships or personality development be given, while others felt that social competence could not be taught as a subject but must be stressed in all the courses offered and developed by participation in group activities. These employers emphasized the importance of taking part in extra-curricular activities as one means of learning to work with others. A course in office etiquette suggested by eighteen employers would also be of help in improving the social competence of employees. Closely related to office etiquette is training in correct telephone techniques mentioned by eighteen employers as a need.

"Give your students a complete course of training in how to apply for a job," said twenty-two employers. Young people need thorough instruction in how to go about looking for a job in a systematic manner, how to write letters of application and fill in application blanks, and how to conduct themselves while being interviewed by employers.

The need for more thorough training in penmanship was

voiced by twenty-one businessmen who felt that legible handwriting was a necessity for the office worker. Several employers thought that students should have instruction in learning how to print rapidly and legibly in addition to instruction and practice in cursive writing.

Salesmanship was listed by eighteen employers as having value for the office employee, for they felt that the ability to apply the principles of selling was important to all workers even though they were not actively engaged in sales work.

In the field of communications, both oral and written, employers had many comments to make. Eighteen employers criticized the deficiencies of their young employees in their knowledge of English fundamentals. Clerks, receptionists, cashiers, and switchboard operators were criticized for their slovenly speech habits, their inability to express themselves clearly, and their errors in grammar. Typists, stenographers, and secretaries were judged to be weak in punctuation, grammar, sentence structure, and composition. In addition to a need for improvement in English fundamentals, sixteen employers suggested that students take a public speaking course in which the emphasis should be on the application to business situations. In this same field of communications, twelve employers felt that students could profit from a course in business correspondence since it happened frequently that office workers were expected to be able to compose letters of the routine type.

"Teach your students the alphabet and the principles of filing," stated seventeen employers. They felt that clear and concise knowledge of filing procedures was necessary for all office workers who had any occasion to refer to the files.

The problem of what the schools could do to bridge the gap between classroom instruction and actual work in the office could be partially solved, according to thirteen employers, by a course in office practice, planned as a finishing course for students before they enter the business world. Such a course should provide an opportunity for students to perform office duties under conditions that simulate actual job situations.

Training in reading comprehension was considered important by thirteen of the businessmen interviewed. They suggested such training because they felt that some of their young employees had difficulty in following written directions.

For the most part the businessmen visited seemed to think that the training given in those subjects involving manipulative skill was quite satisfactory. Thirteen of them did suggest that students be encouraged to develop more speed and accuracy on adding and calculating machines. One local employer who was experiencing difficulty in obtaining skilled Comptometer operators said that it would be of help to his firm if a few students who showed aptitude in machine

calculation could be given intensive training in the operation of the Comptometer.

In regard to typewriting, ten employers felt that speed and accuracy development should be stressed more. Student typists should be given the opportunity to use a variety of business forms with carbon copies according to seven employers. Instruction in the proper care of the typewriter was stressed by six employers. More training in typing numbers, statistical typing, letter placement, and typing shortcuts was mentioned by a few employers as being desirable. Instruction in machine transcription was listed by three employers as being needed.

Eleven employers believed that better results in training bookkeepers could be obtained if the instruction in bookkeeping did not stress so much theory but was more practical. Two employers said that they needed employees who had received complete and thorough training in accounting.

Eight employers listed the need for more training in cutting stencils and preparing master copies, and six employers wanted their office help to have more instruction in the operation of the various duplicating machines.

Such courses as consumer problems, business law, insurance, and installment buying were mentioned by a few employers as containing valuable background information of value to the young employee in both his business and personal life.

Three employers wanted business students to have more training in the use of reference material.

In addition to suggesting subjects which might be stressed more in training students for office employment, many of the businessmen made comments concerning the more intangible aspects of business training. Some of these comments have been summarized and are listed in Table XIII. Others not adaptable to table form will be quoted.

Training students to get along with others, mentioned by twenty-five employers as a need, ties in with the suggestion made by them that students be given a course in personal relationships. The development of a pleasing personality named by twenty-three employers is also closely related to this problem of personal relationships.

Suggestions by employers of characteristics which make for competence on the job followed in this order: good work habits, adaptability, turning out of usable work, attention to detail, following directions, and accepting responsibility. Thirteen employers listed training in good grooming and selection of suitable apparel for office wear as important.

Some of the businessmen interviewed felt that one of the hardest adjustments for the beginning worker just out of school to make was to get accustomed to working without supervision. "Too much of their training has been based on the



TABLE XIII

SUGGESTIONS BY LOCAL EMPLOYERS AS TO WAYS IN WHICH  
THE SCHOOLS COULD BETTER PREPARE  
STUDENTS FOR OFFICE JOBS

Suggestions	Frequency
Train students	
1. to get along with others	25
2. to develop a pleasing personality	23
3. to develop good work habits	21
4. to be adaptable to different situations	18
5. to turn out usable work	17
6. to pay attention to detail	15
7. to follow directions	13
8. to accept responsibility	13
9. to be well-groomed and suitably dressed	13
10. to work without supervision	11
11. to work rapidly and accurately	10
12. to have initiative	10
13. to do independent and analytical thinking	7
14. to ask questions when they do not understand	4
Encourage students	
1. to stay in school until their training is completed	17
2. to acquire a broad general education in addition to the acquiring of skills	15
3. to participate in extra-curricular activities	13
4. to tell the truth about their training and ability when applying for a job	12
5. to be curious about and interested in their jobs	6

completion of a textbook," said one employer. Eleven employers wanted to see students trained to work more independently.

Other traits reported by employers which the school could help to develop were the ability to work rapidly and accurately, to have initiative, to do independent and analytical thinking, and to ask questions when needed.

Seventeen employers urged that business students stay in school until their training was completed. They were most emphatic in saying that they were tired of having young people apply for jobs when they were not qualified. Twelve employers felt that it was necessary for students to be honest in describing their training and ability when applying for a job. Inasmuch as some students seemed to have a tendency to overrate their ability and enlarge on their training when seeking jobs, employers felt that they should be cautioned about the invisability of such procedures while still in school.

Fifteen employers seemed to feel that a broad general education was very desirable for the beginning office worker as this type of education develops social understandings, gives a cultural background, and makes the individual more adaptable to a variety of jobs.

Participation in extra-curricular activities was listed as being of value by thirteen businessmen in that such participation taught students leadership and gave them self-confidence.

"Encourage your students to be curious about and interested in their jobs," was a statement made by six businessmen, who felt that the worker who takes an active interest in the business and who endeavors to learn more about it is a real asset to the employer.

A number of responses in regard to ways in which schools could better prepare students for office jobs could not be easily summarized for use in Table XIII. Some representative responses are quoted below:

In an office there are times when the work is very heavy. Young people have a tendency to resent this and feel that at such times they are overburdened. They should be willing to put forth extra effort when necessary.

Too many of the newcomers just out of school are not willing to give their best efforts for the full eight hours. They may tend to business for the first six hours but after that there is a decided letdown.

Young employees, while they may be hired for a specific job, must be willing to help out on any of the jobs in the office. They must be able and willing to adapt themselves to different situations.

Emphasize to your students the importance of refraining from talking too much, either on the inside or on the outside.

The new employee must learn to adapt himself to the established routine in the office in which he is employed and not try to do his work in exactly the same fashion as he did at school or on previous jobs.

The new worker just out of school must accept the fact that it is necessary to settle down to one job.

Please teach your students that company telephones are not to be used by the office help to visit with boy friends.

Students should be taught to maintain an impersonal attitude in the office. It is no place for a display of emotions or for the airing of one's personal problems.

Impress your students with the undesirability of trying to "put something over" on the boss or their fellow employees.

Young employees just out of school do not realize the importance of being on the job every day. They feel it is their privilege to stay home whenever they so desire. They are also careless about getting to work on time. Stress the importance of regularity and punctuality on the job.

A certain amount of aggressiveness is necessary for the office employee who has to meet the public.

#### DESIRABLE PERSONAL CHARACTERISTICS FOR OFFICE WORKERS

Employers interviewed in this study were asked to list those personal characteristics which they felt were essential for their employees. Their responses are shown in Table XIV.

In comparing this table with Table XIII, page 72, it is evident that many of those personal characteristics that the employer wishes his office worker to possess are the same as those which the employer would like the schools to stress in training newcomers for office work.

TABLE XIV

PERSONAL CHARACTERISTICS WHICH EMPLOYERS IN ONE HUNDRED  
OFFICES FELT WERE ESSENTIAL FOR THEIR EMPLOYEES

Personal characteristics	Frequency
Cooperative spirit	41
Ability to get along with fellow employees	38
Ability to meet the public	36
Pleasing personality	36
Adaptability	35
Competence on the job	33
Good health	30
Common sense	29
Interest in the work	29
Willingness to accept responsibility	25
Initiative	24
Neat appearance	24
Self-confidence	24
Reliability	21
Regularity and punctuality	20
Permanence	19
Loyal attitude	18
Ability to keep confidences	18
Honesty	18
Resourcefulness	15
Systematic manner of working	15
Ability to take orders and supervision	14
Willingness to give service	13
Cheerfulness	13
Ability to follow directions	13
Conscientiousness	12
Willingness to accept rules and regulations	12
Quiet manner	11
Maturity	11
Industriousness	10
Considerate of others	9
Alertness	9
Poise	9
Keep personal life out of business	9
Ability to follow through on difficult assignments	8
Ability to see employer's point of view	6
Respect for other's ideas	4
Good morals	3
Abstinence or moderation in smoking and drinking	2
Ability to remember names and faces	2

## SUMMARY

In this chapter the attitudes of employers toward locally trained employees were examined. It was found that employment agencies were named most frequently as the source of new employees with the local public schools in second place. Some employers were not aware that the schools had a placement service.

Employers reported that the office job most difficult to fill was that of bookkeeper-stenographer. Well-trained, experienced bookkeepers and secretaries were in demand according to some employers. While employers had many more applicants for jobs than formerly, there was still a lack of applicants who were well qualified for the jobs.

The majority of employers said they were willing to hire beginners from local schools for full-time jobs. Those who were not interested in hiring beginners said that the type of work done in their offices required experienced help.

In twenty-eight of the one hundred offices visited, there were some occasions when part-time help was needed.

The training period for new employees ranged from a few hours in some offices to six months in others. Employers said that thorough training in the schools aided in shortening the training period in the office.

In regard to the importance of school records, recommendations by staff members and academic records seemed to be

of equal importance to employers. Third in importance were attendance and tardy records; and fourth in importance, scores on aptitude tests. Fourteen employers felt that all four records were of great importance; whereas ten employers were not interested in using such records at all. Other employers who had never used school records said they did not feel qualified to judge their importance.

Business subjects which needed more emphasis in the schools, according to the businessmen interviewed, included arithmetic, spelling, vocabulary, proofreading, penmanship, English, and reading comprehension. A number of employers also recommended that more training be given in personal relationships, office etiquette, telephone techniques, and correct procedures in applying for a job. Such specialized subjects as filing and business correspondence were mentioned by some businessmen as being of value to the office worker. A course in office practice in which students would have an opportunity to practice their skills in an office atmosphere was also suggested. Training in salesmanship and public speaking was considered by some of the interviewees as being essential.

Most of the employers interviewed seemed to be fairly well satisfied with the training given in those subjects which demand manipulative skill. Some employers recommended that more speed and accuracy be developed in the use of office machines.

In regard to typing, the following suggestions were made by a few employers: more speed and accuracy development, practice in the use of business forms, proper care of the typewriter, shortcuts in typing, practice in typing of numbers, statistical typing, and letter placement. Operation of duplicating machines and the cutting of stencils and master copies needed more attention according to a few of the respondents, and three employers suggested that more emphasis be put on training in machine transcription.

Businessmen felt that the bookkeeping training should be practical; only two of them asked that students have complete, thorough training in accounting. The only criticism of the shorthand training was weakness in transcription, which in many cases is due to deficiencies in English, spelling, and vocabulary.

According to a few businessmen, courses in business law, installment buying, insurance, and consumer problems should be given to the business student as such courses would be of value to him in both his personal and business life. One other suggestion made by several employers was that students should have more training in the use of reference material.

In addition to suggesting subjects which might be stressed more in the schools, businessmen made comments concerning desirable personal characteristics and attitudes.



They felt that the schools should give more training to the students in the art of getting along with others, developing a pleasing personality, developing good work habits, learning adaptability to different situations, turning out usable work, paying attention to detail, following directions, accepting responsibility, working without supervision, working rapidly and accurately, developing initiative, and doing independent and analytical thinking.

Employers urged that students be encouraged to acquire a broad general education in addition to the acquiring of occupational skills, that they participate in extra-curricular activities, and that they stay in school until their training is complete. One point that was strongly emphasized by employers was that students must learn to tell the truth about their training and ability when applying for jobs.

Many of the desirable personal characteristics that the employer felt that his office workers must possess were the same as those which the employer would like the schools to stress in training students for office jobs.

## CHAPTER VI

### BUSINESS EQUIPMENT

#### PURPOSE OF THE CHAPTER

The purpose of this chapter is to find the types and number of machines used in the one hundred business offices visited and to compare them with the machines available for instructional purposes at the Modesto Junior College. For a commercial department to offer the best possible business training it is essential that the office machines be up to date and in keeping with the needs of local business offices.

#### TYPEWRITERS

Table XV is a tabulation of 416 typewriters reported. Of this total 75 were the long-carriage typewriters and the remaining 340 had the standard-length carriage. In comparing the latter as to size of type, 181 or 53.3 per cent were pica type and 159 or 46.7 per cent were elite type. The leading makes of typewriters were found to be the Royal with 163 machines reported and the Underwood with 147 machines reported. There were 70 Remingtons listed and 18 L. C. Smiths. Of the 12 electric typewriters reported, 8 were IBM machines, 2 were Burroughs, 1 was a Remington, and 1 was an Underwood.

The kinds and number of typewriters available for

TABLE XV

KINDS OF TYPEWRITERS USED IN ONE HUNDRED OFFICES  
IN MODESTO

Typewriters	Pica type	Elite type	Long carriage	Total
Burroughs	-	1	-	1
L. C. Smith	12	4	2	18
Remington	30	26	14	70
Royal	77	70	16	163
Underwood	49	55	43	147
Woodstock	1	-	-	1
Miscellaneous				
Autotyper	3	-	-	3
Varityper	-	-	-	1
Electric				
Burroughs	2	-	-	2
IBM	5	3	-	8
Remington	1	-	-	1
Underwood	1	-	-	1
Totals	181	159	75	416

instructional purposes in the Business Training Department at Modesto Junior College are shown in Table XVI. Classroom instruction is given on Remington, Royal, and Underwood machines. Forty-eight of these machines are pica type and thirty-eight are elite type. Members of the office training classes have some opportunity to use the IBM electric typewriter. Two long-carriage machines are available for class use also.

#### ADDING AND CALCULATING MACHINES

Table XVII, page 85, gives a comparison of the types and number of adding and calculating machines used in one hundred local offices with the types and number of similar equipment used in the Business Training Department at Modesto Junior College. Among the adding machines having the full keyboard, the Burroughs was in the lead with sixty electric models and thirty-nine hand models. Both types of machines are available at the College for instructional purposes. Fourteen Monroe electric adding machines were reported by the offices surveyed. Instruction is given on one machine of this type. Other types of adding machines found in small numbers in the local offices were the Remington, Allen-Wales, R. C. Allen, Clary, and Victor. One R. C. Allen is available at the College for class instruction.

In the ten-key model adding machine the Sundstrand

TABLE XVI

KINDS AND NUMBER OF TYPEWRITERS USED FOR INSTRUCTIONAL  
PURPOSES IN THE BUSINESS TRAINING DEPARTMENT  
AT MODESTO JUNIOR COLLEGE

Typewriters	Pica type	Elite type	Long carriage	Total
Remington	11	12	0	23
Royal	18	13	1	32
Underwood	18	13	1	32
Electric				
IBM	1	0	0	1
Totals	48	38	2	88

TABLE XVII

COMPARISON OF TYPES AND NUMBER OF ADDING AND CALCULATING  
MACHINES USED IN ONE HUNDRED LOCAL OFFICES WITH SIMILAR  
TYPES OF EQUIPMENT FOUND IN THE BUSINESS TRAINING  
DEPARTMENT AT MODESTO JUNIOR COLLEGE

Types of machines	Equipment in local offices		School equipment	
	Hand	Electric	Hand	Electric
Adding machines				
Full keyboard				
Burroughs	39	60	2	1
Monroe	1	14	-	1
Remington	1	3	-	-
Allen Wales	2	4	-	-
R. C. Allen	3	2	-	1
Clary	1	3	-	-
Victor	3	-	-	-
Ten-key				
Remington	2	3	-	-
Sundstrand	15	29	2	2
Dalton	2	2	-	-
Desk Monarch	2	-	-	-
Calculating machines				
Crank-driven				
Friden	-	6	-	-
Marchant	-	27	-	3
Monroe	9	29	2	5
Key-driven				
Burroughs	2	20	6	-
Comptometer	7	-	1	-

led with fifteen hand models and twenty-nine electric models. The College has two hand and two electric models. Other makes of ten-key adding machines reported were the Remington, Dalton, and Desk Monarch, but the College does not have any of these machines.

The Monroe calculator led in the report on the crank-driven models with twenty-nine electric and nine hand-operated machines. To give training on this type of machine, the College has two hand-operated Monroes and five electric models. The Marchant calculator was listed twenty-seven times, and the College has three machines of this type. The Friden calculator was found in six offices, but no machine of this type is available for class instruction at the College.

In the key-driven calculating machines, seven Comptometers were listed. The College has one of these machines available for instructional purposes. The Burroughs electric key-driven calculator was reported twenty times and the hand model was listed twice. Six hand-operated models of this make are available for instruction. The operation of the hand and electric models is practically the same; therefore no electric models have been purchased.

#### MISCELLANEOUS OFFICE MACHINES

Table XVIII deals with a comparison of miscellaneous machines in the one hundred offices visited with those found

TABLE XVIII

COMPARISON OF TYPES AND NUMBER OF MISCELLANEOUS MACHINES  
 USED IN ONE HUNDRED LOCAL OFFICES WITH SIMILAR TYPES  
 OF EQUIPMENT FOUND IN THE BUSINESS TRAINING  
 DEPARTMENT AT MODESTO JUNIOR COLLEGE

	Equipment in local offices	School equipment
Billing machines		
Burroughs	6	-
Bookkeeping machines		
Burroughs	27	-
National Cash Register	7	-
Remington	1	-
Sundstrand	3	1
Underwood-Fisher	2	-
Posting machines		
Burroughs	2	1
Underwood	4	-
Transcribing machines		
Ediphone	17	2
Dictaphone	9	1
Wire recorder	5	-
Addressing machines		
Addressograph	10	1
Graphotyper	3	1
Others		
Folding machine	2	1
Sealing machine	5	-
Switchboard	21	-
Automatic change maker	2	-
Check protector	31	-



at the College. The number and kinds of billing, posting, and bookkeeping machines are listed in this table; however no class in machine bookkeeping is being offered at the College at the present time as there is little need for it. Machine bookkeepers can best be trained on the job. A course in bookkeeping and training in the operation of adding and calculating machines are of value in learning machine bookkeeping, however.

Under transcribing machines, seventeen Ediphone machines, nine Dictaphones, and five wire recorders were listed. The College has available one Dictaphone and two Ediphone machines. Complete training is offered in machine transcription including instruction in the use of the dictating, transcribing, and shaving machines.

Ten Addressograph machines and three Graphotypers were listed, and the College has one machine of each type.

#### DUPLICATING MACHINES

According to Table XIX, the Mimeograph proved to be the most common type of duplicating machine with twenty hand models and twelve electric models listed. Training is available on both types of machines at the College. Students are also given instruction on the Hectograph, Ditto (both gelatin and liquid types) and hand-operated Multigraph.

TABLE XIX

COMPARISON OF TYPES AND NUMBER OF DUPLICATING MACHINES  
 USED IN ONE HUNDRED LOCAL OFFICES WITH SIMILAR TYPES  
 OF EQUIPMENT FOUND IN THE BUSINESS TRAINING  
 DEPARTMENT AT MODESTO JUNIOR COLLEGE

	Equipment in local offices		School equipment	
	Hand	Elect.	Hand	Elect.
Stencil type				
Mimeograph	20	12	2	-
Niagara	-	-	-	1
Gelatine type				
Hectograph	2	-	1	-
Ditto	2	-	1	-
Liquid type				
Ditto	6	-	1	1
Standard	1	-	-	-
Multigraph	-	1	1	-
Multilith	-	1	-	-

## FILING SYSTEMS

Table XX shows the filing systems used in the local business offices visited. Nearly all of the offices used some form of alphabetic filing. Three offices reported geographic filing; twenty-seven offices used a numeric system; nineteen offices filed by subject; two offices used Soundex; thirteen offices used the Kardex system and two offices reported using a visible record system.

A two-unit course in filing offered at Modesto Junior College gives training in these different systems mentioned.

## TYPEWRITING DESKS AND CHAIRS

According to Table XXI, page 92, the height of the typewriting desks in the business offices visited ranged from 24 inches to 31 inches with the most common heights being 26 and 26½ inches. In most of the offices adjustable posture chairs were used, and the height of these ranged from 17 to 19 inches.

The typewriter tables used at Modesto Junior College range from 27 to 31 inches in height. The chairs used in the typing rooms are of the nonadjustable type and are 18 inches in height.

TABLE XX

FILING SYSTEMS USED IN ONE HUNDRED  
LOCAL BUSINESS OFFICES

Filing systems	Number reported
Alphabetic	87
Geographic	3
Numeric	27
Subject	19
Soundex	2
Kardex	13
Visible Record	1
Acme Visible	1

TABLE XXI

HEIGHT OF TYPEWRITING DESKS  
IN LOCAL BUSINESS OFFICES

Height of desks in inches	Frequency
24	4
$24\frac{1}{2}$	2
25	11
$25\frac{1}{2}$	3
26	18
$26\frac{1}{2}$	17
27	8
$27\frac{1}{2}$	3
28	3
$28\frac{1}{2}$	1
29	3
$29\frac{1}{2}$	1
30	5
$30\frac{1}{2}$	1
31	1

## SUMMARY

In this chapter a comparison was made between the number and types of office equipment found in one hundred local business offices and the number and types of office equipment available for instructional purposes at the Modesto Junior College.

There were three leading makes of typewriters found in these local offices: 40.8 per cent of the typewriters listed were Royals; 36.8 per cent, Underwoods; and 14.7 per cent, Remingtons. The College is equipped to give instructions on these three makes.

It was found that 53.3 per cent of the typewriters in these offices were pica type and 46.7 per cent were elite type. The machines used for instructional purposes at the College are about evenly divided between pica and elite type.

In the electric typewriter field, the IBM machines were most commonly found. An IBM electric typewriter is available for student use in advanced office practice classes.

Out of the 136 full-keyboard adding machines listed, 72.7 per cent were Burroughs and 11 per cent were Monroe machines. Training is given on both of these machines at the Modesto Junior College.

Fifty-five ten-key adding machines were used in the offices studied, and 80 per cent of these were Sundstrand

machines. Four of these machines are available to students at the College.

Seventy-one crank-driven calculating machines were listed with 53.5 per cent of them being Monroe machines and 38 per cent being Marchant machines. Instruction is given on both machines at the College.

In regard to key-driven calculating machines, there were twenty-two Burroughs machines and seven Comptometers listed. Six hand-operated Burroughs machines are used at the College, but no electric models are available. One Comptometer is provided for student use.

There were twenty-two Ediphone and Dictaphone machines in use in the local offices studied, and the College provides complete training in the use of these machines. Training is also given in the Addressograph and Graphotype machines which are used in a few offices.

Switchboards are often found in the large business concerns, but the facilities for giving such training at the College are very limited.

The College is well equipped to provide instruction on the Mimeograph machine and the gelatin and liquid types of duplicating machines found in Modesto offices.

A complete two-unit course in filing is given at the College which would seem to meet the filing needs of local business offices.

It was found that the height of the typewriting desks in business offices ranged from 24 to 31 inches with the most common heights being 26 and  $26\frac{1}{2}$  inches. The typewriting tables at Modesto Junior College ranged from 27 to 31 inches in height. In most of the business offices, adjustable posture chairs were used. In the typing classrooms at the College, straight-back, nonadjustable chairs were used.



## CHAPTER VII

### THE BUSINESS CURRICULA AND THE GUIDANCE AND PLACEMENT PROGRAM AT MODESTO JUNIOR COLLEGE

#### PURPOSE OF THE CHAPTER

In order to determine if Modesto Junior College is meeting the needs of the community and the students it serves, it is necessary to know something of its business training curricula and its vocational guidance program. In this chapter a description will be given of the courses offered in the Business Training Department and of the vocational guidance and placement program at Modesto Junior College.

#### BUSINESS TRAINING CURRICULA

Aims of the Business Training Department. The aims of this department are threefold: first, to provide an intensive two-year course in five vocational fields for those students who intend to seek employment after completing junior college; second, to enable students to meet lower division requirements for university or college; third, to give business training for personal use.

Business Training Majors. In preparation for a major in this department the student must complete satisfactorily a minimum of twenty units of business courses. In order to

assure adequate preparation for employment, students are urged to take additional business courses beyond the twenty units. For graduation all students are required to take six units of English, four units of social science, a course in hygiene, and a course in physical education each semester. If students have had some business training in high school, they have more opportunity to take elective courses both in business and in other fields.

By taking a two-year course and completing the graduation requirements, a student may obtain the degree of Associate of Arts. Students not wishing to graduate or students majoring in other fields may take any courses they desire in the Business Training Department.

Business Courses Offered. For the terminal student the Business Training Department offers courses in vocational accounting, vocational merchandising, general business, stenography, and general clerical. The three fields which are of particular significance to this study are vocational accounting, vocational stenography, and general clerical. The suggested program of courses for each of these fields is given on pages 98-100.

## VOCATIONAL ACCOUNTING

This curriculum is designed for the college student who desires to prepare himself to meet the demands of business in the field of general bookkeeping and accounting.

## FIRST SEMESTER

Physical Education	$\frac{1}{2}$
English A or X	3
Bus. Ad. 1 (Accounting)	3
Economics 1	3
Hygiene 2 or 4	2
Math. 51 or 53	3
Bus. Ad. 48 (Business Management)	2
	<u>16<math>\frac{1}{2}</math></u>

## SECOND SEMESTER

Physical Education	$\frac{1}{2}$
English 41	2
Bus. Ad. 2 (Accounting)	3
Economics 2	3
Sec. Tr. 54 (Typing)	2
Math. 2	3
Electives	2
	<u>15<math>\frac{1}{2}</math></u>

## THIRD SEMESTER

Physical Education	$\frac{1}{2}$
English 42	2
Soc. Sci. 3	2
Bus. Ad. 3 (Accounting)	3
Bus. Ad. 17 (Commercial Law)	2
Psychology 41	3
Speech 15	3
	<u>15<math>\frac{1}{2}</math></u>

## FOURTH SEMESTER

Physical Education	$\frac{1}{2}$
Soc. Sci. 4	2
Bus. Ad. 42 (Cost Accounting)	3
Economics 40 (Statistics)	3
Bus. Ad. 52 (Tax Accounting)	2
Bus. Ad. 18 (Commercial Law)	2
Electives	3
	<u>15<math>\frac{1}{2}</math></u>

## GENERAL CLERICAL

This curriculum prepares the student for positions requiring skill in typing, filing, figuring, business machine operation, and record keeping.

## FIRST SEMESTER

Physical Education	$\frac{1}{2}$
English 41	2
Hygiene 2 or 4	2
Sec. Tr. 50 (Beginning Typing)	3
Math. 51 (Business Math.)	3
Sec. Tr. 59 (Machine Cal.)	2
Elective	2
	<u>14<math>\frac{1}{2}</math></u>

## SECOND SEMESTER

Physical Education	$\frac{1}{2}$
English 42	2
Sec. Tr. 51	3
Sec. Tr. 73 (Vocab. and Spelling)	2
Bus. Ad. 51 (Bookkeeping)	3
Bus. Ad. 55 (Salesmanship)	2
Elective	2
	<u>14<math>\frac{1}{2}</math></u>

## THIRD SEMESTER

Physical Education	$\frac{1}{2}$
Social Science 3	2
Sec. Tr. 52	3
Sec. Tr. 70 (Duplicating)	3
Sec. Tr. 71 (Filing)	2
Sec. Tr. 74 (Bus. Corres.)	2
Speech 1 or Speech 15	3
	<u>15<math>\frac{1}{2}</math></u>

## FOURTH SEMESTER

Physical Education	$\frac{1}{2}$
Sec. Tr. 53	2
Sec. Tr. 75 (Business Practice)	3
Bus. Ad. 58 (Business Law)	2
Social Science 4	2
Electives	6
	<u>15<math>\frac{1}{2}</math></u>

## VOCATIONAL STENOGRAPHY

The stenographic curriculum aims to give a thorough knowledge of and training in stenographic work and modern office appliances. It prepares the student for positions as stenographer, secretary, and office manager.

## FIRST SEMESTER

Physical Education	$\frac{1}{2}$
English 41	2
Hygiene 2 or 4	2
Sec. Tr. 50 (Beginning Typing)	3
Sec. Tr. 60 (Beginning Stenography)	5
Sec. Tr. 73 (Vocab. and Spelling)	2
	<u>14<math>\frac{1}{2}</math></u>

## SECOND SEMESTER

Physical Education	$\frac{1}{2}$
English 42	2
Sec. Tr. 51	3
Sec. Tr. 61 (Stenography)	5
Sec. Tr. 71 (Filing)	2
Sec. Tr. 74 (Business Corres.)	2
	<u>14<math>\frac{1}{2}</math></u>

## THIRD SEMESTER

Physical Education	$\frac{1}{2}$
Bus. Ad. 51 (Bookkeeping)	3
Sec. Tr. 70 (Duplicating)	3
Social Science 3	2
Sec. Tr. 63 (Stenography)	4
Sec. Tr. 52	3
	<u>15<math>\frac{1}{2}</math></u>

## FOURTH SEMESTER

Physical Education	$\frac{1}{2}$
Social Science 4	2
Sec. Tr. 64 (Stenography)	4
Sec. Tr. 66 (Adv. Sec. Tr.)	3
Sec. Tr. 53	2
Sec. Tr. 59 (Machine Cal.)	2
Electives	2
	<u>15<math>\frac{1}{2}</math></u>

## GUIDANCE PROGRAM

The guidance program at the Modesto Junior College is under the supervision of the Director of Student Personnel, assisted by one full-time counselor and two part-time counselors.

The guidance program starts to function before the student comes to Modesto Junior College. All students interested in attending college are invited to spend a day at Modesto Junior College while they are still seniors in high school. They are taken on a tour of the campus and have a chance to talk with the instructors in the fields of their choice. Counselors from the Junior College also visit the neighboring high schools and help students to plan their programs for their first semester in the Junior College.

All incoming freshmen must register in a ten-week orientation course called Introduction to College Life. In addition to helping the student make an adjustment to college life, this course offers an opportunity for each student to discover his personal interests and aptitudes so that he may be better able to make a wise vocational choice.

A series of mental tests, interest and aptitude tests, study-skill tests, and reading tests are given to the new students, followed by an individual testing program, if necessary. As a result of this testing program each student

makes a test record and profile chart. Then the counselor aids the student in analyzing his skills, aptitudes, and interests in preparation for planning his program for the remainder of the time that the student plans to remain in the Junior College.

Students are encouraged to consult with the counselors when they are having scholarship or personal difficulties, when they wish to make program changes, and when they wish occupational information. A file of up-to-date occupational material is made available to all students.

An effort is made to bring together in a folder, which is available to the director of placement, the instructors, and the counselors, pertinent information about the student such as high school and college grades, health records, scores on aptitude tests, rating sheets of instructors, and records of extra-curricular activities.

#### PLACEMENT PROGRAM

The placement program at the Modesto Junior College is in the process of reorganization at the present time. Formerly there was a Central Placement Bureau that served both the High School and the Junior College, but at the present time the Chairman of the Business Training Department at the Modesto Junior College is taking care of the placement of the college students.

Students who are interested in part-time work file application with the Placement Bureau at the time they register for the new semester. Those students who have completed their training and are ready for full-time employment also make use of the school placement service. In an effort to widen the scope of this service, letters have been written to recent business training graduates informing them of the Placement Bureau now established on the Modesto Junior College campus which is available to them as former students.

The duties of the Director of Placement are to keep on file the applications of all those students interested in obtaining part- or full-time employment, to collect data on available jobs from employers, and to arrange meetings between employers and applicants for jobs.

In an attempt to obtain more definite information about job opportunities for junior college students, present plans call for a classification of all Modesto business firms with a record kept of all students and former students employed by them and information about the jobs which these students have held.

All students who are interested in part- or full-time employment are requested to take the course, Business Etiquette, taught by the Director of Placement.



## CHAPTER VII

### CONCLUSIONS AND RECOMMENDATIONS

#### PURPOSE OF THE CHAPTER

Although the number of employers and employees considered in this study is not sufficiently large to warrant conclusive generalizations, it is felt that this study is broad enough to indicate certain trends in the office occupations, to provide a sampling of employers' attitudes toward locally trained employees, and to give some indication of the kinds and types of equipment being used in local offices. It is the purpose of this chapter to discuss the findings made in this study and to make recommendations based on these findings.

#### CONCLUSIONS AND RECOMMENDATIONS REGARDING CURRICULUM

1. Arithmetic, spelling, penmanship, English, and reading comprehension were among the subjects most frequently mentioned by employers as needing additional emphasis in the schools. In regard to arithmetic and spelling, courses are offered in both of these subjects at Modesto Junior College. In order to make certain that students who need remedial work in these subjects enroll in these classes, diagnostic tests in both subjects are given to all business training students. If the student shows a weakness in the subject,

he is requested to take the remedial course. It is recommended that this procedure be continued.

The English Department is sponsoring a spelling laboratory in which students who have difficulty in spelling may go for additional help. Business instructors should encourage their students who are deficient in spelling to take advantage of the special remedial instruction given in this spelling laboratory.

No training is being given in penmanship at the present time. It is recommended that a course in penmanship be added to the business training curriculum when possible and that all instructors stress the importance of legible writing in their class work.

All students who plan to graduate from Modesto Junior College must take a minimum of six units of English. However, those students who do not plan to attend college the full two years are not required to fulfill the English requirements; and, as a result, some students are preparing for office jobs without an adequate knowledge of English.

While the Business Training Department offers a course in business correspondence in which a review of English fundamentals is given, it is recommended that a course in Business English be offered for those students who are planning to graduate but who still need additional training in English

fundamentals and for those students who are not required to take the regular English courses.

All incoming students who are found to be weak in reading are requested to take a special course in remedial reading under the direction of a reading expert. At the present time a number of the business training students are taking advantage of this opportunity to improve their reading ability and are finding this training beneficial. It is recommended that these special reading classes be continued.

Since all five of these subjects, arithmetic, spelling, English, penmanship, and reading require practice and application over a long period of time, it is recommended that they be emphasized in every subject and in every class period. Business instructors should not recommend students for office positions until deficiencies in the fundamentals have been corrected.

2. The employers interviewed seemed to feel that the schools should do more to make the transition from school life to office life easier for the student. It is recommended that as far as possible business instructors should try to cultivate an office atmosphere rather than a classroom atmosphere in the teaching of business subjects; that the students' work be judged by office standards, not by academic standards; that advanced students be trained to carry on their work without constant teacher supervision; and that students be given

an opportunity to participate in actual work experience while still in school.

3. One of the greatest shortcomings of young employees according to the employers was weakness in personality and character traits. Three courses are being offered in the Business Training Department of Modesto Junior College which give some training in personal relationships. A course in secretarial practice for students who are preparing for stenographic jobs and a course in business practice for general clerical students both stress the various factors which help to make an efficient office worker--office manners, personal appearance, personality development, and development of good working habits. A course in business etiquette provides information on how to get a job and how to be successful in it.

While these three courses give definite training in getting along with people and should be of great help to the business student, it is recommended that business instructors in every course give instruction in and stress the importance of personal relationships as a factor in job success.

4. Businessmen mentioned such courses as salesmanship, public speaking, consumer problems, and business law as being of value to the office worker. It has been the policy of the instructors in the Business Training Department to encourage students training for office work to include these courses in their programs when possible. Courses mentioned by

employers as needing more emphasis were filing, business correspondence, and business vocabulary. These courses are being offered at the College at the present time and are required for all general clerical and secretarial training students who are planning to graduate.

Complete training is being given in those courses involving manipulative skill such as typing, office machines, duplicating, and machine transcription, and in most cases the suggestions made by the employers are being carried out in these courses. A course in bookkeeping fundamentals is provided for the general clerical and secretarial students, and several accounting courses are given for those students who are majoring in the accounting field.

5. By comparing the subjects offered at Modesto Junior College with the suggestions made by local employers, it appears that the office training curriculum is, for the most part, adequate. Those students who take a recommended course for office work and complete it in an acceptable manner should have marketable skills and the social competence which would enable them to perform satisfactorily on the job. A problem does exist when a student who has failed to do acceptable work in school or drops out before his training is complete secures a job and is not able to do the work. Frequently the employer will blame the school curriculum when he employs such a student. This problem will be discussed under placement.

## CONCLUSIONS AND RECOMMENDATIONS REGARDING VOCATIONAL GUIDANCE

1. It is recommended that counselors and business instructors make use of the following information in giving vocational guidance to students planning to become office workers.

a. The fact that there was a turnover of 25.3 per cent in the office jobs studied in this survey and that 76.8 per cent of the employees studied had been on the job for less than five years would seem to indicate that there are good job opportunities in office work in Modesto. Jobs with a high turnover rate and which therefore make good entry jobs are cashier, general clerk, receptionist, stenographer, switchboard operator, and typist.

b. Office work is a profession that attracts many young people; 45.1 per cent of the office employees studied were under twenty-five years of age. Jobs in which young people predominated were bookkeeper, cashier, general clerk, receptionist, stenographer, switchboard operator, and typist.

c. This survey shows that two thirds of the employees studied had had previous office experience, and the percentage of office workers employed as bookkeepers, office managers, secretaries, and stenographers were especially high in regard to previous experience.

Previous experience is undoubtedly an important factor in securing a job, and students should be encouraged and aided in obtaining part-time and summer employment while still attending school.

d. As 17.6 per cent of all the workers studied were employed as bookkeepers and 17.6 per cent were employed as general clerks, it would seem that more students should be encouraged to prepare for these two jobs instead of secretarial jobs in which 10.5 per cent of the workers were employed or stenographic jobs in which 9.9 per cent were employed.

e. Of the 513 employees studied, 51.4 per cent had received most of their business training beyond high school. For jobs of bookkeeper, stenographer, secretary, and office manager advanced training beyond high school is especially recommended.

f. Because of the great increase in population in this area, locally trained students are competing with workers who have had their training outside of Modesto. This study showed that 46.5 per cent of the employees studied were trained locally; whereas 53.5 per cent had received their training in other localities. Since this competition does exist, it is advantageous for local students to obtain as high a degree of training as possible.

g. Since it was found that there was a considerable overlapping of duties in the jobs studied in this survey, and since many of the employers interviewed emphasized the fact that their employees must be adaptable to different kinds of work in the office, it would seem that in the small type of office, typical of Modesto, a well-rounded business training course is of more value than a specialized course. It is not sufficient to train students as calculating machine operators, filing clerks, or transcription operators. To fill the needs of local offices, it is recommended that students have complete training in general clerical work in order to be capable of performing varied office duties.

h. Students should be urged to complete their business training before leaving school. While at the present time there is an increasing number of applicants for each job, there are still excellent job opportunities for the person who is well trained not only for an entry job but also for advancement on the job. It is recommended that provision be made for those students who do not intend to stay in the junior college for two years to take as much skill training as possible early in the college course.

i. It is recommended that qualified students be encouraged to train for bookkeeper-stenographer jobs as



employers stated that these jobs were the most difficult to fill.

2. It is recommended that students should be given an opportunity to become better acquainted with local job situations by making school-conducted visits to local offices, by inviting employers to speak to groups of business students, and by giving students some work experience in local offices while they are still attending school. Students should also be more familiar with occupational titles and job requirements.

3. It is recommended that students be encouraged to participate in extra-curricular activities as such participation is of value in learning to work with others and in acquiring poise and self-confidence.

#### CONCLUSIONS AND RECOMMENDATIONS REGARDING PLACEMENT

1. It appears from this study that the employers interviewed were for the most part fairly well satisfied with the instruction that the business training students were receiving and were willing to hire them for part- and full-time jobs. However, it is recommended that employers be encouraged to check with the Junior College Placement Bureau concerning the applicant's academic record, his attendance and tardy records, recommendations by instructors, and special aptitudes and interests as shown by various tests.

Such a procedure once established would be of benefit to the employer and the applicant. The employer would be protected against hiring an applicant who had not received adequate training or whose school record had not been satisfactory, and the applicant would be prevented from taking a job for which he was not prepared.

2. It was found in this study that there were some employers who were not familiar with the vocational training program being given at the College. It is recommended that a campaign be started to acquaint more businessmen with the type of business training that is offered at the College and to encourage them to think of the Placement Bureau as a source for well-trained office workers.

#### CONCLUSIONS AND RECOMMENDATIONS REGARDING EQUIPMENT

1. It appears from the data given in Chapter V concerning office equipment that the Business Training Department at Modesto Junior College is adequately equipped in regard to typewriters, adding and calculating machines, duplicating machines, and transcription machines and is giving training on the types and kinds of machines found in Modesto offices. The filing equipment is adequate for the training in different filing systems used locally.

2. It is recommended that students be given an opportunity to see the operation of such miscellaneous machines as the Varityper, Autotyper, National Cash Register, IBM Machines, multigraph, and multilith either by visits to local offices using such equipment or by demonstrations put on at the school by representatives from different office equipment concerns.

3. Since there were seventy-five long-carriage typewriters in use in the Modesto offices visited, it is recommended that all students in the advanced typing classes be given more instruction in the use of such machines. Two long-carriage typewriters are available for such instruction.

4. There is a need for giving office training students instruction on the switchboard, but at the present time facilities are limited for this type of instruction. However, a number of the advanced secretarial training students are given some experience in handling the switchboard located in the main office at the College, and it is recommended that this procedure be continued.

5. The purchasing of adjustable posture chairs for use in the typing rooms is recommended.

## GENERAL CONCLUSIONS AND RECOMMENDATIONS

1. The local businessmen interviewed for this study were in nearly all cases cooperative and willing to do their share to bring about better rapport between business and the school. It is recommended that business training instructors be encouraged to do their part in developing favorable school-business relationships by visiting employers to find out what the demands of local business offices are, by encouraging employers to become familiar with all aspects of the school business training program, and by trying to coordinate the work of the school with that of business.

2. In order to prepare students to meet the ever-changing demands of business, it is necessary that there should be a continuous study of the business of the community. Such studies might take the form of single occupation surveys to reveal entrance and advancement requirements, employment opportunities, and the possibilities of cooperative part-time training; job analyses to determine what skills and abilities are required for each type of job; and follow-up studies of former students locally employed to discover how successfully they have been able to meet the requirements of the business world.

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## APPENDIX A



1. From what sources do you secure your new employees?
2. How many new office employees have you hired this last year and for what kinds of jobs?

Replacements

Additions

3. What office jobs in your business are the most difficult to fill?
4. Are you willing to hire beginners from local schools for full-time jobs?
5. Do you have part-time jobs available for high school and junior college students? If so, what kinds of jobs are they?
6. Do you have a training program of your own for your office employees? Explain.

7. Referring to those employees who received their training in the local schools, in your opinion, how well have they been trained?
8. Please state for those employees who were trained locally
  - (a) Strong points
  - (b) Weak points
9. Of what importance do you consider the following factors in employing office workers?
  - (a) School grades
  - (b) Attendance and tardy records
  - (c) Recommendations
  - (d) Aptitude tests
10. In what ways could the schools better prepare the students for office jobs with your concern?
11. List some specific personal characteristics which you consider essential for the employees in your office.

How many of each of the following machines do you use in your business? 126

Adding Machines

(Full Keyboard) Hand Elec.

Burroughs	_____	_____
Monroe	_____	_____
Remington	_____	_____

(Ten-key)

Remington	_____	_____
Sundstrand	_____	_____

Calculating Machines

(Crank-driven)

Friden	_____	_____
Marchant	_____	_____
Monroe	_____	_____

(Key-driven)

Burroughs	_____	_____
Comptometer	_____	_____

Billing Machines

Burroughs	_____	_____
Remington	_____	_____
Underwood	_____	_____
I B M	_____	_____

Addressing Machines

Addressograph	_____	_____
Elliot	_____	_____

Bookkeeping Machines

Hand Elec.

Burroughs	_____	_____
Monroe	_____	_____
Remington	_____	_____
Underwood	_____	_____

Duplicating Machines

(Stencil Type)

Mimeograph	_____	_____
Niagara	_____	_____

(Gelatine Type)

Hectograph	_____	_____
Ditto	_____	_____

(Liquid Type)

Ditto	_____	_____
Standard	_____	_____

Multigraph	_____
Multilith	_____
Davidson Duplicator	_____

Machine Transcription

Ediphone	_____
Dictaphone	_____
Wire Recorder	_____
Tape Recorder	_____

Miscellaneous

Folding Machine	_____
Sealing Machine	_____
Switchboard	_____

Typewriters

Pica Elite Long Carriage

Standard			
L. C. Smith	_____	_____	_____
Remington	_____	_____	_____
Royal	_____	_____	_____
Underwood	_____	_____	_____
Woodstock	_____	_____	_____
Noiseless	_____	_____	
Electric			
I B M	_____	_____	
Underwood	_____	_____	
Autotyper	_____	_____	

Filing Systems

Alphabetic	_____
Variadex	_____
Triple Check	_____
Automatic	_____
Geographic	_____
Numeric	_____
Subject	_____
Soundex	_____
Kardex	_____

Height of typewriting tables or desks \_\_\_\_\_

Kinds of chairs used \_\_\_\_\_

## APPENDIX B



TABLE A (continued)

ALPHABETICAL LIST OF BUSINESS OFFICES SURVEYED  
WITH DISTRIBUTION OF EMPLOYEES BY SEX

Firm name	Employees		Total
	Male	Female	
36. Galliher's Furniture	0	1	1
37. Gallion Claims Service	0	2	2
38. Gant, Vernon (Attorney)	0	3	3
39. Giddings Bros.	0	3	3
40. Giffen-Stone Motors (Lincoln)	1	2	3
41. Girl Scout Office	0	1	1
42. Grange Co.	4	14	18
43. Green & Berry Inc.	1	2	3
44. Griswold & Wight (Ford)	2	4	6
45. Hi-Way Equipment	0	1	1
46. Hill, Fred L. (Plumbing)	0	2	2
47. J M Equipment Co.	1	2	3
48. KBEE	0	1	1
49. Kress, S. H. & Co.	0	2	2
50. KTRB	0	2	2
51. Loeb's Dept. Store	0	3	3
52. Losher's Furniture	0	2	2
53. Lyng, Ed. J. (Warehouse)	1	4	5
54. MacBride, R. B. (Dodge, Plymouth)	1	7	8
55. Matthews, Alfred (Oldsmobile)	0	2	2
56. May Transfer and Storage Co.	1	1	2
57. Mercantile Acceptance Corp.	0	4	4
58. Merchants' Adjustment Bureau	0	2	2
59. Metropolitan Life Insurance Co.	0	1	1
60. Milk Producers Assn. of Calif.	0	22	22
61. Miller Motor Company	0	2	2
62. Modesto Bank and Trust Co.	0	6	6
63. Modesto Bee Engraving	0	1	1
64. Modesto Cannery Supply	0	1	1
65. Modesto City Clerk's Office	0	9	9
66. Modesto City Schools (Administration)	1	17	18
67. Modesto Furniture Co.	0	1	1
68. Modesto High School	0	9	9
69. Modesto Irrigation District	5	18	23

TABLE A (continued)

ALPHABETICAL LIST OF BUSINESS OFFICES SURVEYED  
WITH DISTRIBUTION OF EMPLOYEES BY SEX

Firm name	Employees		Total
	Male	Female	
70. Modesto Journal	0	1	1
71. Modesto Junior College	0	10	10
72. Modesto Steam Laundry	0	5	5
73. Modesto Walnut Assn.	1	0	1
74. Montgomery Ward Co.	0	11	11
75. Morris, L. M. (Books, stationery)	1	2	3
76. National Farm Loan	4	3	7
77. Pacific Gas & Electric Co.	2	6	8
78. Pacific Telephone & Telegraph	2	19	21
79. Paradis, Frank (DeSoto, Plymouth)	1	2	3
80. Penney, J. C. Co.	0	8	8
81. Personal Finance Co.	0	1	1
82. Powell Insurance Agency	0	2	2
83. Raney, Ruth (Real Estate)	0	1	1
84. Red Cross	0	2	2
85. Robertson Hospital	0	2	2
86. Robertson Photo-Copy Service	1	1	2
87. Robinson, Lawrence & Sons (Seeds)	0	2	2
88. San Joaquin Baking Co.	0	1	1
89. Seaboard Finance Co.	3	4	7
90. Selective Service Board	1	1	2
91. Singleton & Porter (Buick)	2	1	3
92. Stanislaus Abstract and Escrow	8	11	19
93. Stanislaus Mutual Fire Ins. Co.	0	8	8
94. Stanislaus Lumber Co.	1	1	2
95. Stultz, R. F. (Dentist)	0	1	1
96. Turlock Cooperative Growers	6	3	9
97. Valley Tractor and Equipment Co.	2	3	5
98. Union Furniture Co.	0	1	1
99. Ward Furniture Co.	0	1	1
100. Wherry's Furniture Co.	0	2	2
Totals	76	437	513

TABLE B

BUSINESS OFFICES CLASSIFIED ALPHABETICALLY  
ACCORDING TO TYPE

Types of offices	Number of firms	Number of employees
1. Associations	4	29
2. Auto dealers and parts	8	32
3. Banking and finance	6	52
4. Community service	3	5
5. County, city, state	19	116
6. Fruit processing	1	11
7. Fuel and feed	3	26
8. Hardware and implement	4	12
9. Lumber	2	6
10. Miscellaneous	11	22
11. Professional	4	6
12. Real estate and insurance	9	27
13. Retail stores	12	39
14. Schools	3	37
15. Title and abstract	1	17
16. Utilities	3	51
17. Wholesale firms	7	25
Totals	100	513