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AN ANALYSIS OF ACCOUNTING SYSTEMS AND PRACTICES  
WITH IMPLICATIONS FOR IMPROVEMENT OF  
INSTRUCTION IN ACCOUNTING

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AN ANALYSIS OF ACCOUNTING SYSTEMS AND PRACTICES  
WITH IMPLICATIONS FOR IMPROVEMENT OF  
INSTRUCTION IN ACCOUNTING

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CHAPTER I

THE PROBLEM

Introduction

With the continued expansion of the business structure and extension of government regulation of business, accounting records are becoming more and more important. All business enterprises, large and small, need adequate accounting systems in order to meet competition. If business enterprises must maintain records, people must be educated to keep, to interpret, and to use records as a means of control in the management of the business enterprise.

Bookkeeping procedures provide permanent records of business transactions so that management will know where it stands at any time, will know the results of operations, will have records of past experience for future reference, will be able to analyze and compare accumulated information, and will be able to plan for the future.

Bookkeeping procedures and techniques are based upon well-recognized principles; systems are well standardized; and much of the work has been adapted to mechanization. Notwithstanding all of these developments, the importance of the individual cannot be overlooked. The bookkeeper whose records will ultimately play such a

vital role as a control device must have a thorough mastery of the principles and techniques. The machine must be operated correctly. In the last analysis, it is the competence of the bookkeeper which is the keystone in the supporting arch of "control through records" upon which management must place tremendous reliance. The responsibility for preparing young people to assume these exacting duties cannot be taken lightly.<sup>1</sup>

Business enterprises today primarily look to high schools and colleges for employees who can perform accounting functions. Therefore, it is the obligation of such institutions to provide training that will meet the needs of business. Dale says:

If schoolroom bookkeeping is to survive, we must get into line with the demands of business for efficient recordkeepers. We must learn the businessman's bookkeeping needs and then train our students to meet his specifications and the demands of his organization.<sup>2</sup>

In order that preparation for accounting may meet the current needs of business, it is necessary that those charged with the responsibility of providing such preparation be familiar with the accounting systems and practices of business.

There are two principal means by which the business teacher may secure information concerning accounting systems and practices. One is to acquire actual occupational experience in bookkeeping and accounting, perhaps by means of

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<sup>1</sup>Fred C. Archer and Milton C. Olson, "How Does the Principal Evaluate the Effectiveness of the Teaching of Bookkeeping," National Business Education Quarterly, XVIII (Winter, 1949), pp. 146-147.

<sup>2</sup>Mylo Dale, "Bring Bookkeeping up to Date," Business Education World, XXIV (March, 1944), p. 391.



summer employment. However, this method necessarily limits the teacher's gaining of knowledge of the accounting procedures and practices of merely one particular business. The other means of acquiring a knowledge of current procedures and practices is to survey the accounting procedures and practices of business enterprises.

The statements just made are not intended to imply that actual business experience is not desirable. If possible, business teachers should, of course, acquire experience working in business establishments. Indeed, this experience is considered so valuable by business educators that there is today a tendency for colleges to require work experience as a part of their business teacher education programs. It should be noted, however, that work experience acquired prior to the beginning of a teaching career will not insure the teacher's keeping abreast of changing business conditions. A business teacher should expect over a period of years to engage in actual work in business enterprises from time to time. In regard to continuing business experience for teachers, Archer and Olson have stated:

Increasing acknowledgment is made of the desirability of some business experience in the background of the teacher. . . . Since business conditions never remain static . . . he the teacher must be encouraged to make a special effort to keep in touch with development in his community.<sup>3</sup>

The business teacher, therefore, needs to be informed in

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<sup>3</sup>Archer and Olson, op. cit., p. 152.

regard to new procedures and practices that business enterprises have adopted and needs to know what new machines are being used in the accomplishment of the accounting functions. One way for the business teacher to keep informed of the changing conditions in business is to make use of the survey of current practices in his community. This point of view is reinforced by the following statements:

Teachers of bookkeeping should keep informed about bookkeeping practices and systems of records in their communities so that they can base their teaching on actual knowledge. This can be done through actual employment at intervals or through frequent contacts with the business offices in the community.<sup>4</sup>

In elementary courses in bookkeeping and accounting, principles and procedures that have been found through research to be used most widely in business and in personal record keeping should be emphasized. To that end, there is need for frequently made and scientifically conducted job analyses of bookkeeping and accounting activities and for surveys of business practices and procedures. Effective practices found to be currently used in business firms should form the basis for a major part of the content of the bookkeeping course.<sup>5</sup>

Community surveys of accounting practices must be limited in some way. Some of the possible limitations are area, type of business, and size of business. Herring<sup>6</sup> suggests that community surveys of job opportunities and

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<sup>4</sup>Julius Robinson, "Make the Teaching of Bookkeeping More Effective," Journal of Business Education, XXII (June, 1947), p. 25.

<sup>5</sup>John Virgil Herring, "A Synthesis and Classification of Research in the Teaching of Bookkeeping and Accounting" (unpublished Ed. D. dissertation, Indiana University, 1950), p. 486.

<sup>6</sup>Ibid.

business practices should be conducted periodically so that business teachers may become aware of current trends which should be reflected in the instruction they offer. In defining the purpose of community surveys related to business education, Toll says:

Surveys in business education are for the purpose of providing criteria for readjusting the business curriculum and guidance programs of a school system to more nearly meet the consumer education and occupational training needs of its pupils.<sup>7</sup>

One may readily assume that it is desirable that business educators know the current practices and procedures of business. But it does not necessarily follow that everything which business does is good or that material taught which business enterprises do not follow should be discarded.

According to Dettmann,<sup>8</sup> the traditional secondary school bookkeeping course with emphasis on double-entry bookkeeping has been criticized for lack of immediate applicability to practical record keeping as encountered by students when they enter bookkeeping jobs. Some of these criticisms are (1) firms using double-entry bookkeeping start the new employee on routine recording; (2) small businesses have most of their bookkeeping done by outside accounting

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<sup>7</sup>Lewis R. Toll, "Survey Studies in Business Education," National Business Education Quarterly, X (Summer, 1942), p. 31.

<sup>8</sup>John A. Dettmann, "Make Your Bookkeeping Course More Practical," United Business Education Association Forum, VIII (January, 1954), pp. 26, 34.

firms; (3) many businesses keep their records on the cash basis; (4) record-keeping activities of many professional people, farmers, and small businesses are kept in commercially published records that require no real understanding of bookkeeping principles. Dettmann believes that although business teachers cannot ignore such criticisms, the bookkeeping course is basically sound. The crux of the problem is to determine to what extent practical applications should be taught without neglecting terminology and fundamental principles of double-entry bookkeeping. Like other business educators, Dettmann believes that bookkeeping teachers should be cautioned on two points. The first of these is that bookkeeping teachers should not belittle the importance of double-entry bookkeeping but instead attempt to cause students to realize that there are valid reasons for variations in accounting systems. It is clearly understandable that the records required for a small single proprietorship business would be quite different from the complex accounting system of a large corporation. The second of these is that the bookkeeping teacher should be aware of the variations from the classroom double-entry bookkeeping procedures, and must, himself, learn as much as possible about all types of bookkeeping practices and procedures which exist today.

From the author's viewpoint, based upon years of experience in business teacher education, the business teacher needs to be familiar with current business practices of the

enterprises in the community in which he teaches. The community survey of the business enterprises is one means of becoming acquainted with current practices.

In studying literature in the field of business education, the author discovered numerous surveys of accounting procedures and practices, but most of them were surveys limited in scope. Most of the studies to date involve limited samplings of the business enterprises of single communities, or are restricted in type or size of business. For the most part, these studies have been master's theses. A few more extensive studies have been completed in densely populated, industrial areas of the country. Since business conditions change, community surveys of business enterprises need to be made frequently and in various parts of the country.

It is reasonable to assume that the results of such studies are most useful to the accounting teachers in the communities in which the studies are completed. Students in their classes should benefit from the more practical aspects of accounting that would be included in the content of the accounting courses. Those students who enter business as bookkeepers will have had some acquaintance with current practices. However, one may also assume that the data will be useful to accounting teachers in other communities that are similar in size and type. In many communities, one may expect to find branches or agencies of the same national

companies which use the accounting systems prescribed by the parent companies, to find similar types of business enterprises using similar accounting systems, and to find more or less the same types of business enterprises. Accounting teachers in other localities may find the procedure used in conducting a survey helpful to them in making surveys in their own communities.

### Statement of the Problem

The problem of this study was to analyze the accounting systems of selected business enterprises to determine current procedures in accounting, to determine the specific duties of personnel responsible for accomplishing the procedures, and to ascertain the implications of the data obtained for instruction in accounting at the secondary school and college levels.

The problem has four significant aspects:

1. To survey selected businesses in an attempt to determine accounting procedures and practices utilized.
2. To gain from accounting personnel detailed information relative to accounting duties performed and the preparation of individuals for performance of said duties.
3. To analyze certain textbooks currently used in instruction in accounting to determine the extent to which instructional material is in accord with current procedures and practices.

4. To ascertain the educational implications of the data obtained and to develop recommendations for improvement of instruction in accounting.

#### Delimitations of the Study

This study is limited to an analysis of accounting systems of selected businesses in the City of Alva, Oklahoma. Alva is a city of approximately 7,000 population and is located in a wheat-producing area of Oklahoma. Northwestern State College, with an enrollment in 1957-58 of 823, is located in the city.

Recognizing that accounting personnel perform many office service duties in addition to those involving accounting, the author included for analysis in this study only those duties directly related to the accounting function.

No attempt is made in this study to point up weaknesses in the accounting systems surveyed. The intent of this study is not to improve accounting practices in business enterprises, but rather to enable teachers to make instruction in accounting in secondary schools and colleges more directly applicable to that which is practiced.

#### Definition of Terms

The following technical terms in the field of accounting and bookkeeping will be used as defined by Eric

L. Kohler in A Dictionary for Accountants:<sup>9</sup>

Accounting--the recording and reporting of transactions: specifically, (a) the devising of internal controls and recording methods (systems, design), (b) the maintenance of transaction records (bookkeeping), (c) the continuous testing of the accuracy and propriety of records (internal auditing), (d) the periodic reviewing of transaction summaries (external auditing), (e) the making known to others of the information revealed in and implications derived from such information.<sup>10</sup>

Accounting system--system of accounts: the classification of accounts, and the books of accounts, forms, procedures, and controls by which assets, liabilities, revenues, expenses, and the results of transactions generally are recorded and controlled.<sup>11</sup>

Bookkeeping--the procedure of analyzing, classifying, and recording transactions in accordance with a preconceived plan, for the purpose of (a) providing a means by which an enterprise may be conducted in an orderly fashion, and (b) establishing a basis for reporting the financial condition of the enterprise and the results of its operations.<sup>12</sup>

Double-entry bookkeeping--a system of bookkeeping in which each transaction involves a two-way, hence self-balancing, entry and a two-way self-balancing posting.<sup>13</sup>

Single-entry bookkeeping--a system of bookkeeping in which as a rule only records of cash and of personal accounts are maintained; it is always incomplete double-entry, varying with circumstances.<sup>14</sup>

#### Source of Data

The data for this study are based primarily upon information obtained through personal interviews with the

<sup>9</sup>Eric L. Kohler, A Dictionary for Accountants (New York: Prentice-Hall, Inc., 1952).

<sup>10</sup>Ibid., pp. 8-9.

<sup>11</sup>Ibid., p. 421.

<sup>12</sup>Ibid., p. 61.

<sup>13</sup>Ibid., p. 161.

<sup>14</sup>Ibid., p. 382.



owners or managers of 108 selected business enterprises in Alva, Oklahoma, and with the personnel responsible for accomplishing the accounting functions in these specific businesses. Additional data were secured by means of an analysis of the instructional content of the accounting textbooks in use in high schools in the Alva area and in Northwestern State College.

A comprehensive interview guide (see Appendix A) was used to assure a high degree of uniformity in the data obtained. The interview guide consists of three sections to make it possible to secure information about the business enterprise, about the accounting procedures and practices, and about the personnel responsible for accomplishing the accounting work.

### Procedure

The first step in making this study involved a comprehensive analysis of literature relative to the teaching of accounting and a perusal of literature describing accounting systems and duties of personnel responsible for accomplishing the accounting functions. It was out of this analysis that the basic ideas were developed which enabled the author to isolate the problem and to determine the sources of data and procedures to be followed.

The second step was the preparation of the interview guide to be used in collecting the primary data. It was

first necessary to determine what information was desired. This involved the analysis of similar studies and other related literature, particularly books on accounting systems. The interview technique of research and the procedures for determining items to be included in an interview guide were studied carefully before the specific points for consideration were assembled. The guide, as finally developed, consists of three interrelated sections. The first part of the interview guide is concerned with general information about the specific business enterprises in which an interview was conducted. The second portion deals with information about each of the accounting systems surveyed and procedures utilized in accomplishing the accounting functions in particular businesses, and further, with information relative to determining the assignments of duties among the individuals responsible for the accomplishment of the accounting work. Section three of the interview guide involves data obtained from the accounting personnel about the nature, extent, and adequacy of their job preparation. It should be noted that in seeking data relative to accounting systems and current procedures, no attempt was made to gather data concerning volume of business or financial condition.

The third step in this study was to determine what would constitute an adequate sampling. The business enterprises of Alva were classified according to the classification

of business firms given in the Statistical Abstract of the United States.<sup>15</sup> The classification provided by the U. S. Bureau of the Census does not include professional people; city, county, or federal offices; schools, hospitals, or churches. These groups were added to the list to insure that the study was based on an adequate sampling of the business activities of Alva. From the amended list, a tentative selection of approximately one-third of the firms was made. As nearly as possible, one-third of the firms in each classification were chosen. Since some categories had only one business of a kind, it was considered desirable to have those businesses represented.

The fourth step was to conduct a trial study of ten firms including one from each of the ten major categories, in order to determine the adequacy and appropriateness of the interview guide. As a result of the trial study, minor changes were made in the interview guide and it was then duplicated in quantity.

The fifth step was to interview personally the owners or managers of the 108 selected businesses and the accounting personnel responsible for accomplishing the accounting functions of those businesses. Appointments were made in person or by telephone. The interviews were conducted in

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<sup>15</sup>U. S. Bureau of the Census, Statistical Abstract of the United States: 1957 (Seventy-eighth edition; Washington, D. C., 1957, p. 482).

an informal manner. They ranged in time from about fifteen minutes for a very small business with a cash distribution sheet as its only record to approximately two hours for some of the larger concerns. The average time was about 45 minutes. The business people of Alva were very cooperative in supplying the data for this study.

The sixth step was to compile the data obtained from these interviews, so that they could be tabulated, summarized and presented in this study.

The seventh step was to prepare a checklist, from the data obtained from the interviews, of the procedures and practices to be used in the analysis of the instructional content of the textbooks to determine whether or not they present current practices, and to what extent the discrepancies between textbook presentation and current practices should be considered in planning the content of instruction in accounting subjects. The textbooks analyzed were the high school bookkeeping text used in Alva and the elementary accounting textbook in use at Northwestern State College.

The eighth step was to summarize and interpret the findings from the interviews and the textbook analysis and to develop conclusions and recommendations regarding the improvement of instruction in accounting. This step culminated in the final preparation of this written report.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

Early in the search of the literature in business education pertinent to this study, the author discovered an excellent source of much valuable information and data, a comprehensive doctoral dissertation written by John Virgil Herring<sup>1</sup> at Indiana University in 1950. Herring reviewed a total of 242 master's theses, doctoral dissertations, and other research studies made between 1920 and 1950 dealing with the teaching of bookkeeping and accounting. He classified the studies under nine divisions, abstracted the reports, and presented them with an introduction and summary for each of his chapters. Chapter VIII of his study consists of a complete analysis of all research completed between 1920 and 1950 relating to duties of bookkeepers and accountants and accounting practices and procedures used by business. A total of 37 studies, some of which are pertinent to this particular study, were abstracted in considerable

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<sup>1</sup>John Virgil Herring, "A Synthesis and Classification of Research in the Teaching of Bookkeeping and Accounting" (unpublished Ed. D. dissertation, Indiana University, 1950).

detail by Herring. Twenty of the studies relate to duties of bookkeepers and accountants, and 17 to accounting practices and procedures.

Because Herring's study constitutes a monumental research effort of its type, this author relied upon it completely as a source of information concerning research related to this study that was completed prior to 1950. Thus, much of the material presented in this chapter was derived from Herring's report, as an unusually reliable secondary source rather than from analysis of the original pieces of research.

All researches completed after 1950, as reviewed in this chapter, were obtained and analyzed by this author in their original unpublished form or on microfilm. Eight significant and pertinent studies were completed after 1950.

#### Studies Completed Prior to 1950

As indicated in the preceding paragraphs, all of the information gained concerning research studies prior to 1950 was derived from Herring's study rather than from the original pieces of research. To insure clarity, the discussion of related literature presented here is classified in terms of accounting practices and procedures as utilized in business organizations and analyses of duties of bookkeepers and accountants.

## Accounting Practices and Procedures

One of the early research studies of this type was done by Brown<sup>2</sup> in 1938. Brown interviewed 75 owners or managers of small retail businesses in the Los Angeles area regarding their accounting practices and their opinions as to the education necessary for maintaining their records. He discovered that the majority of the businessmen used a cash book as their only book of original entry. Accounts receivable and accounts payable ledgers consisted of filed sales slips and invoices, respectively. The businessmen reported that they believed the most helpful subjects to be studied in preparation for keeping the accounting records of small businesses were bookkeeping and mathematics. They suggested that preparation in bookkeeping, business law, general business information, and mathematics should be extended. Brown recommended that high schools should offer a basic bookkeeping and accounting course for a sole proprietorship business with practice in preparing income tax and sales tax reports for the benefit of those students planning to enter the retail business. He also recommended that bookkeeping and accounting teachers should become acquainted with the business practices in the communities in which they teach.

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<sup>2</sup>Cornelius Leo Brown, "Bookkeeping Practices of Small Retail Businessmen" (unpublished Master's thesis, The University of Southern California, 1938), as abstracted by Herring, pp. 543-545.

Four studies dealing with bookkeeping and accounting practices were completed at the State University of Iowa from 1939 to 1946. O'Brien,<sup>3</sup> in 1939, prepared a checklist of all possible features of bookkeeping and accounting presented in high school textbooks which might be found in retail stores and used this checklist to determine the actual uses made of information taught in bookkeeping and accounting classes. In 1941, Clark<sup>4</sup> surveyed 82 businesses in towns ranging from 500 to 10,000 population to determine the accounting practices and procedures used in small businesses. Clark's study was designed to serve as a basis for improvement of high school bookkeeping and accounting instruction. Likewise, in 1941, Joslin<sup>5</sup> surveyed the accounting practices of 92 small business offices in Iowa City, Iowa, to determine information that might be used as a basis for improvement of instruction in high school bookkeeping and accounting.

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<sup>3</sup>Leslie W. O'Brien, "A Study of Bookkeeping Systems of Retail Stores in New Hampton, Iowa, as a Basis for the Revision of Instruction in Bookkeeping" (unpublished Master's thesis, The State University of Iowa, 1939), as abstracted by Herring, pp. 574-577.

<sup>4</sup>George R. Clark, "A Study of Bookkeeping Systems in the Smaller Business Establishments to Serve as a Basis for Possible Revision of High School Bookkeeping Instruction Plans" (unpublished Master's thesis, The State University of Iowa, 1941), as abstracted by Herring, pp. 546-548.

<sup>5</sup>George D. Joslin, "An Analysis of Bookkeeping Practices Found in Business as a Basis for Improving High School Courses in Bookkeeping" (unpublished Master's thesis, The State University of Iowa, 1941), as abstracted by Herring, pp. 563-565.



Latimer<sup>6</sup> made a study in 1946 of 50 representative firms in Lake Forest, Illinois, a suburb of Chicago, interviewing the person or persons responsible for maintaining accounting records. These four research studies disclosed that small business establishments wherever located use much the same type of accounting records. The most commonly used book of original entry is the combined cash journal. The researchers recommended that more emphasis should be placed on the combined cash journal in the instructional content of high school bookkeeping and accounting. They also recommended that bookkeeping and accounting teachers should become familiar with the accounting practices and procedures used by the business establishments in their communities.

Pearson<sup>7</sup> made a study in 1940 to determine the bookkeeping practices of selected small business enterprises for the purpose of gaining information which might be useful in planning the instructional content of accounting courses. He interviewed the proprietors of 60 small businesses. Although some of these proprietors had had high school bookkeeping, most of them believed that they were handicapped

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<sup>6</sup>Roy Anderson Latimer, "A Study of Bookkeeping Systems and Practices in the Smaller Independent Business Establishments of Lake Forest, a Suburb of Chicago, Illinois" (unpublished Master's thesis, The State University of Iowa, 1946), as abstracted by Herring, pp. 566-568.

<sup>7</sup>Clarence F. Pearson, "The Bookkeeping Practices of Selected Retail Business Enterprises in Escanaba, Michigan" (unpublished Master's thesis, University of Wisconsin, 1940), as abstracted by Herring, pp. 578-579.

because they had had no formal preparation in accounting. The researcher found that most of the businesses used single-entry records, and used sales slips and invoices as journals. For the most part, fiscal period closing procedures were quite lax. Pearson recommended that teachers should realize that since proprietors of small businesses are not primarily accountants and avail themselves of all possible shortcuts, future businessmen should be taught record keeping that they can understand and remember, as well as have time to use.

In 1944, Cochran<sup>8</sup> made a study of the bookkeeping needs of small businesses in and near Tallahassee, Florida. She analyzed the six leading textbooks used in the secondary and continuation schools in the area to determine how adequately the subject matter taught met the needs of small businesses. Cochran discovered that the columnar journal was used by more than half of the businesses but that very little space was given to its presentation in the textbooks. The textbooks placed much emphasis on special journals which were used by only a limited number of business firms. Cochran recommended that the instruction in accounting should include more emphasis on the columnar journal, stress the

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<sup>8</sup>Annie Lou Cochran, "A Survey of the Bookkeeping Needs of Small Businesses within a Radius of 50 Miles of Tallahassee, Leon County, Florida, to Serve as a Basis for Determining the Partial Content for Commercial Training in Bookkeeping in High Schools and Continuation Schools in This Area" (unpublished Master's thesis, Florida State College for Women, 1944), as abstracted by Herring, pp. 549-551.

importance of the cash register, and give practice in handling the more commonly used business forms. She also recommended that teachers should acquaint their students with the business forms and accounting practices used by the local business enterprises.

In a 1945 master's study, Reed<sup>9</sup> used the interview technique to secure information regarding accounting practices from the proprietors of 60 small stores located in five Arizona towns. He found that many of the retail firms kept records solely for tax purposes and that the preparation of tax and other governmental reports presented the biggest problem in record keeping. The proprietors considered the greatest weakness of their employees to be inability to make arithmetical calculations. Reed reached the conclusion that accounting teachers should familiarize themselves with the accounting practices of businesses in their communities and should stress the value of recordkeeping in the management of a business.

Nasser<sup>10</sup> interviewed the owners of 100 small businesses in Terre Haute, Indiana, in 1946. She discovered

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<sup>9</sup>Lavor B. Reed, "Bookkeeping Practices of Small Retail Businessmen in Gila Valley, Arizona" (unpublished Master's thesis, Arizona State College, 1945), as abstracted by Herring, pp. 580-582.

<sup>10</sup>Mary Nasser, "A Survey of the Records and Policies of Small Businesses in Terre Haute, Indiana" (unpublished Master's thesis, Indiana State Teachers College, 1946), as abstracted by Herring, pp. 572-573.

that the majority of these firms used the single-entry system of maintaining records and that whereas most of them kept their own records, tax returns and other reports were prepared by outside accountants. Out of seventy-six firms reporting that they closed their books at the end of a fiscal period, only twenty followed recommended accounting procedures. Nasser recommended the use of a combined cash journal in small businesses and closer control of and accounting for cash through use of a cash register.

In 1947, Foster<sup>11</sup> made a survey of the bookkeeping systems and practices of 20 dry goods stores in Columbus, Ohio. Her study disclosed that single-entry accounting is used more than double-entry by these firms. Each of the businesses using single-entry had as the principal book of original entry a form of daybook, whereas each of the others used a columnar journal. Only one store used a commercial bookkeeping system. Foster concluded that too much time is devoted to adjusting and closing entries in the elementary bookkeeping course and not enough attention is given to simplified recordkeeping systems using single-entry methods. She also suggested that students in high school bookkeeping classes should be given more practice in reconciling bank statements.

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<sup>11</sup>Grace Margaret Foster, "A Survey of the Bookkeeping Systems and Practices of Columbus Dry Goods Stores" (unpublished Master's thesis, The Ohio State University, 1947), as abstracted by Herring, pp. 554-556.

Collins<sup>12</sup> prepared a questionnaire, containing 72 items selected from the Kansas state-adopted accounting textbook, for use as a guide in interviewing managers and accountants of 30 business firms in Pittsburg, Kansas. His study constituted an attempt to determine whether specific types of information in accounting textbooks are used frequently, seldom, or never, in performing accounting duties. From the results of his study, Collins concluded that more material concerning social security and the withholding tax should be included in high school accounting courses, and that students should be provided with more opportunities to become familiar with the commonly used business forms. Collins's study indicated that high school accounting courses include the information used in actual accounting practice but that it is not presented in the manner in which the accountant will be expected to use it in his work.

In 1949, Bleicher<sup>13</sup> surveyed the bookkeeping practices of 51 businesses in Minster, Ohio. From the data obtained, she drew the following implications for the teaching of bookkeeping: (1) students should be acquainted with

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<sup>12</sup>Frank G. Collins, "A Study of the Application by Local Business Establishments of the Principles Taught in High School Bookkeeping Courses in Kansas" (unpublished Master's thesis, Kansas State Teachers College (Pittsburg), 1948), as abstracted by Herring, pp. 552-553.

<sup>13</sup>Sister Mary Adelia Bleicher, C.P.P.S., "Bookkeeping Practice in Minster, Ohio, Business Firms" (unpublished Master's thesis, University of Cincinnati, 1949), as abstracted by Herring, pp. 539-542.

a wide variety of bookkeeping systems and procedures; (2) both double-entry and single-entry practices are used and have their place; (3) students should have practice in preparation of payrolls and income tax returns; (4) students should be acquainted with some of the better-known commercial systems; and with the more commonly used business forms; and (5) students should have the opportunity to work practice sets in types of businesses in which they are interested.

#### Analyses of Duties of Bookkeepers and Accountants

Perhaps the earliest study of this type was made by Strumpf<sup>14</sup> in 1926. This study revealed, by means of a check-list of 479 duties checked by 300 bookkeepers as to frequency and difficulty, that of the 100 most frequently performed duties, 85 were strictly accounting in nature. Strumpf concluded that more attention in accounting courses should be given to interpretation of financial statements and to problems relating to payrolls. He recommended that additional research be done to determine the techniques of instruction to be used, the grade placement, the topical order, and the traits necessary to perform the accounting duties.

Another of the early studies of duties of bookkeepers

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<sup>14</sup>Benjamin E. Strumpf, "Bookkeeping Duties and the Commercial Curriculum" (unpublished Ed. D. dissertation, New York University, 1926), as abstracted by Herring, pp. 521-524.

and accountants was made by Eyster<sup>15</sup> in 1931. He used a questionnaire listing 471 duties which was submitted to bookkeepers and accountants. Four hundred thirty-six questionnaires were completed. The data showed that the most frequently performed duties were posting, preparing statements at the close of fiscal periods, and journalizing. The least frequently performed duty was interpreting the accounts and statements.

In a doctoral study made in 1934, Skene<sup>16</sup> obtained information from persons engaged in four general classes of business--general business, institutional, professional, and governmental. By means of a checklist of 537 duties classified in terms of 20 accounting functions, the duties were ranked according to frequency of performance in each of seven occupational groups: general clerks, bookkeepers and accountants, entrepreneurs and managers, stenographers and typists, salesmen and sales clerks, ledger clerks, and non-office workers. A committee of ten teachers checked the material to determine whether the activities should be taught, and if so, to what level of attainment--mastery or acquaintanceship. There were 159 activities found to be so

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<sup>15</sup>Elvin S. Eyster, "An Analysis of the Duties of Bookkeepers" (unpublished Master's thesis, Indiana University, 1931), as abstracted by Herring, pp. 497-498.

<sup>16</sup>Etta C. Skene, "Occupational Analysis as a Basis of Bookkeeping Curricula of Secondary Schools" (unpublished Ph.D. dissertation, New York University, 1934), as abstracted by Herring, pp. 518-520.

important that they should be taught to all business students, 44 of these to be taught to the mastery level. The study revealed further that 54 of the 84 activities performed only by accountants should be included in all programs of accounting preparation. Skene recommended that a study should be made to determine the subject matter and grade placement of the 159 activities that should be taught to all students, and that another study should be made to develop definite courses in vocational accounting on the secondary and junior college levels.

In a study in Des Moines, Curry<sup>17</sup> inquired of 50 bookkeepers and accountants what duties they performed in order to determine how adequately the Des Moines schools were preparing students in these areas. He found that the most frequently performed activities involved preparation of trial balances, preparation of statements, maintaining special ledgers, posting, taking inventories, finding and correcting errors, reconciling bank statements, and balancing and ruling accounts. He concluded that the Des Moines schools were offering adequate instruction in accounting principles and the machine operations normally required on the job. He recommended that additional units of instruction on income taxes, social security, and social insurance be taught.

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<sup>17</sup>Howard L. Curry, "A Survey to Determine the Vocational Value of Bookkeeping as It Is Being Taught in the Des Moines Schools" (unpublished Master's thesis, Drake University, 1938), as abstracted by Herring, pp. 495-496.



Brigham<sup>18</sup> interviewed 327 recording clerks in the Philadelphia area to determine which of 357 activities they performed regularly or occasionally and which of these activities they considered easy or difficult. He found that the retail and wholesale trades used the greatest number of recording clerks and recommended that practices utilized in these two industries should have a prominent place in accounting instruction.

### Studies Completed Since 1950

#### Accounting Practices and Procedures

Two doctoral studies based on analyses of accounting practices and procedures have been completed recently. In 1953, Stoner<sup>19</sup> made an analysis of accounting systems of small independent retail businesses in Pennsylvania to determine the instructional content for a course in retail accounting that might be offered for retail businessmen to help them improve their accounting systems. A jury composed of accountants, retail businessmen, and a retail specialist criticized the research interview guide and also designated

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<sup>18</sup>James Gaily Brigham, "Bookkeeping Activities of the Business Office" (unpublished Ed. D. dissertation, The Pennsylvania State College, 1944), as abstracted by Herring, pp. 489-492.

<sup>19</sup>James Kermit Stoner, "An Analysis of the Accounting Systems and Practices of Small Independent Retail Businesses" (unpublished Ed. D. dissertation, University of Pittsburg, 1953).

whether an item should be considered an essential or desirable accounting practice. Out of 75 items regarding accounting systems and practices, 47 were considered either essential or desirable by the jury. Although none of the essential or desirable accounting systems and practices required a double-entry system of accounting in order to be used or followed, the study revealed that "businessmen using double-entry bookkeeping follow more closely the essential and desirable accounting systems and practices than do businessmen in other stores."<sup>20</sup> Stoner found that a large number of the pre-determined essential and desirable accounting systems and practices were not followed by the retail businesses included in his study. He recommended that adult education in retail accounting for businessmen and other store personnel should be made available by high schools, colleges, business colleges, or through Chambers of Commerce; and he proposed an outline for such a program.

In 1954, Yankow<sup>21</sup> made a study of general accounting practices in manufacturing concerns in the Chicago area to determine implications for the improvement of instruction of accounting on the collegiate level. The data for the study

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<sup>20</sup>Ibid., p. 130.

<sup>21</sup>Henry G. Yankow, "A Study of General Accounting Practices in Certain Selected Corporate Manufacturing Concerns in the Chicago Area with Implications for the Improvement of Instruction of Accounting on the Collegiate Level" (unpublished Ph. D. dissertation, Northwestern University, 1954).

were obtained by means of interviews with those responsible for the accounting activities of selected business firms, supplemented by an analysis of the annual statements and financial reports of 45 of the 60 participating companies. This study reveals that business executives believe that colleges should place more emphasis on preparation for industrial accounting. Yankow also concluded that cost accounting is the backbone of accounting in the manufacturing industry with standard cost systems most common, followed by job and process systems. The data indicates a trend toward more forecasting and budgetary control; toward simplification of financial statements; toward mechanization of accounting work such as journalizing, posting, statistical reports, inventory control, payrolls, and special analyses; toward greater dependence by management on accountants for interpretation and recommendations; toward improvement of practices and procedures; and toward uniformity of classification of accounts, techniques, and practices. Yankow recommended that colleges should offer programs which give students an opportunity to specialize in industrial accounting on an equal basis with other fields of accounting; that more emphasis should be placed on the importance of the ability to write, use simple arithmetic, and follow instructions; that educational counselors should be made aware of the trends and opportunities in the field of accounting; that accounting teachers should be familiar with current practices in order to make their

courses practical. He also recommended that cooperative or internship programs in accounting should be established in the Chicago area.

Four master's studies pertinent to this investigation have been completed since 1950. In 1953, Irons<sup>22</sup> used a questionnaire, followed by interview when necessary, to study the bookkeeping activities of small businesses in Greeley, Colorado, to determine the skills and activities which are required of persons employed in bookkeeping positions in small businesses. The results of this study were used as the basis for recommendations relative to the content of a bookkeeping course for Greeley High School and other comparable high schools. Irons recommended that instruction in bookkeeping should be presented from the multi-column journal approach, because this type of journal was most commonly used by the businesses surveyed. He also suggested that students be given an opportunity to become acquainted with the more commonly used machines found in business offices, such as the cash register, check protector, and adding and listing machines.

A study of bookkeeping practices of small retail

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<sup>22</sup>Joseph P. Irons, Jr., "The Bookkeeping Activities of Small Businesses in Greeley, Colorado, and Implications for Teaching in High Schools" (unpublished Master's thesis, Colorado State College of Education, 1953).

businesses in Florence, Arizona, was made by Geiler<sup>23</sup> in 1954, to determine the implications for the improvement of the bookkeeping course in the high school. This study reveals that recordkeeping practices of small businesses vary with the needs and demands of the businessman himself. He recommended that teachers should make use of community resources to make bookkeeping instruction more practical; that they should be familiar with the accounting systems used in the community and should be able to show students the relationship between the methods taught and the methods used. Geiler concluded that more emphasis should be placed on the operations and problems of small business, bookkeeping for the sole proprietorship, the use of the combined cash journal, the preparation of income tax and other reports, the importance of records in the operation of the business, and the importance of the bookkeeping cycle, financial statements, and the trial balance.

Green,<sup>24</sup> in 1954, conducted a study to determine the specific bookkeeping systems and practices in use in the businesses of Fennimore, Wisconsin, in order to secure

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<sup>23</sup>Carlton Rae Geiler, "A Study of Small Business Record-Keeping Practices in Florence, Arizona, with Implications for Revision of Bookkeeping Instruction" (unpublished Master's thesis, Iowa State Teachers College, 1954).

<sup>24</sup>Leonard LeRoy Green, "A Survey of the Bookkeeping Systems and Practices in the Retail and Service Businesses of Fennimore, Wisconsin" (unpublished Master's thesis, State University of Iowa, 1954).

information to aid in preparing high school students in the methods of recordkeeping used in the community and to determine which phases of instruction need greater or less emphasis in actual class work. From his study, he concluded that greater emphasis should be placed on the study of partnerships; various types of businesses, especially service businesses; single-entry bookkeeping and standardized systems used by local businessmen; the use of the combined cash journal; banking services and their use; the use of files in the place of ledgers; and the preparation of statements. Green recommended that less time be spent on instruction pertaining to accruals.

Another investigation made in 1954 was that by Rowe.<sup>25</sup> This investigation consisted of a case study analysis of twenty small businesses to determine the types of records maintained by small business owners and managers and the uses made of these records. The information obtained from the business enterprises was compared with the methods and procedures taught in the small high school bookkeeping and accounting classes. As a result of this study, Rowe recommended that the business teacher should include information about business management and business principles in the bookkeeping course; that the teacher should be familiar with

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<sup>25</sup>Clair D. Rowe, "The Record Keeping and Related Managerial Problems of Business in a Small Iowa Community--a Case Study" (unpublished Master's thesis, Iowa State Teachers College, 1954).

the recordkeeping practices of the local businessmen; that more emphasis should be placed on sole proprietorship bookkeeping, and on the combined cash journal; that samples of commercially prepared recordkeeping systems should be introduced in the bookkeeping class; and that bookkeeping instruction should involve some consideration of the methods of preparing retail sales tax reports and income tax returns.

#### Analyses of Duties of Bookkeepers and Accountants

In a doctoral study completed in 1954, Moran<sup>26</sup> used both the questionnaire and interview techniques to secure data from 67 office managers, 496 employees in bookkeeping work, and 13 teachers of bookkeeping, in the Pittsburgh area. Moran made a special effort to determine: (1) the extent of competency of bookkeepers, (2) kinds of criticisms made by employers, (3) changing aspects in the vocation of bookkeeping, (4) extent of lag in bookkeeping instruction, and (5) number of persons engaged in bookkeeping. She discovered that there is a dearth of mechanical equipment available for bookkeeping instruction and that employers frequently criticize the inaccurate figuring and poor penmanship of employees. Moran concluded that bookkeeping education in the high schools should be made as practical as possible; that the high degree

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<sup>26</sup>Sister M. Agnes Moran, "A Study of Bookkeeping Employment to Improve Bookkeeping Instructional Materials and Equipment" (unpublished Ed. D. dissertation, New York University, 1954).

of specialization and mechanization of the bookkeeping office offers a challenge to curriculum directors in revamping bookkeeping courses of study and in the integrated use of machines; and that the teaching of bookkeeping should be made more realistic.

Another recent study is the doctoral research completed by Hill<sup>27</sup> in which a checklist of bookkeeping duties constituted the basis for an analysis of textbooks. Hill compiled a list of bookkeeping activities from 23 previous studies of bookkeepers' duties. Utilizing this checklist, she determined to what extent the activities and principles involved were included in currently used high school textbooks; and, by means of a questionnaire to high school teachers in eleven southern states, to what extent they presented this material in the courses they taught. Hill concluded that textbooks should present more of the principles and activities used by workers in business offices since the textbooks mentioned only 50 per cent of the items on the checklist. However, this research reveals that the textbooks presented and the teachers taught more of the items in the upper quartile than in the lower ranking quartiles. Hill recommended that more emphasis be given to records for taxes of various kinds, more attention be given to banking

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<sup>27</sup>Martha Frances Hill, "A Comparative Study of Bookkeeping Principles and Activities Used on the Job as Presented in Textbooks and by Teachers" (unpublished Ed. D. dissertation, University of Kentucky, 1954).



activities, and more stress be placed upon records for small businesses, especially the combined cash journal.

The research studies reviewed in this chapter show some similarity in results reported and conclusions drawn; particularly, is this true regarding the surveys of accounting practices and procedures. The majority of these studies disclose that the combined cash journal is the most-used book of original entry and the researchers recommend that more emphasis should be placed on its use in instruction in bookkeeping and accounting subjects. Several writers have recommended on the basis of their research studies that more attention be given to instruction in the preparation of income tax and other tax reports. A majority of the research studies completed to date stress the desirability of accounting teachers becoming familiar with accounting practices and procedures prevailing in business enterprises.

The succeeding chapters of this report are devoted to a presentation and analysis of data obtained from interviews with the owners and managers of selected businesses in Alva, Oklahoma, and with the bookkeeping and accounting personnel of those businesses. In Chapter III, background information pertinent to the study is presented. Chapter IV contains the analysis of data relative to the current accounting systems and practices. Chapter V pertains to the specific duties of bookkeeping and accounting personnel and preparation for fulfillment of such duties. Chapter VI is

concerned with the compilation of a checklist of accounting systems, practices, and activities to be used as a basis for analysis of the textbooks currently used in the high school in Alva and in the accounting classes at Northwestern State College. Implications for improvement of instruction in accounting at the high school and collegiate levels derived from the data in the three preceding chapters are included in Chapter VI. Chapter VII consists of a summary of the data and conclusions.

## CHAPTER III

### BACKGROUND INFORMATION

The data which were secured by means of personal interviews are of primary significance in this investigation. The information obtained by means of the interviews concerns current accounting systems and the accounting practices and procedures actually utilized in Alva, Oklahoma. These data about accounting systems and practices were accumulated for purposes of comparison with the content of accounting textbooks in an attempt to evaluate the adequacy and appropriateness of instructional content in bookkeeping and accounting subjects. The personal interviews were conducted with the managers or proprietors of 108 selected businesses in Alva, Oklahoma, and with other personnel responsible for the performance of duties related to the accounting functions.

In the various sections of this chapter, an attempt is made to present adequately information relating to the circumstances surrounding the personal interviews. The community is described; the nature of the businesses is revealed; and specific information is presented relative to types of business ownership, the accounting systems utilized, numbers

of employees, and other miscellaneous information. Careful study of this background information should enable the reader to understand better and to interpret accurately the primary data presented in Chapters IV and V.

### The Community

Alva, county seat of Woods County, is a city with a population of approximately 7,000. It is the center of a wheat-farming and cattle-raising area in northwest Oklahoma. Recently, there has been some oil- and gas-producing activity in the area.

An interesting source of information regarding Alva is that provided by Crissman.<sup>1</sup> According to Crissman, before the opening of the "Cherokee Strip," Alva had been selected as a townsite on the Santa Fe railroad right-of-way. It was named for Alva Adams, an attorney for the Santa Fe railroad, when the railroad company built the Parhandle section of its line through the "Strip" in 1885-86. When the "Cherokee Strip" was opened for settlement on September 16, 1893, Alva, overnight, became a tent city of several hundred persons. Long before statehood, Alva had demonstrated its potential for growth and development. In 1897, Northwestern State Normal School, a two-year collegiate institution for the preparation of teachers, was established in the city. The

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<sup>1</sup>George R. Crissman, A History of Woods County, Oklahoma. (No imprint), p. 97.

Woods County Courthouse was built in 1898; this original building was replaced by a modern, fireproof building in 1955. During the 65 years of its existence, Alva has developed into a relatively modern, progressive community.

The city's public school system consists of three elementary schools, a junior high school, and a senior high school. In addition, there are two parochial elementary schools--Lutheran and Catholic. The two-year "Normal" School, established in 1897, became in 1919 a four-year college offering degrees in teacher education. In 1939, the offering of the College was extended to include degrees in liberal arts. During the school year 1957-58, Northwestern State College, as it is now called, had an enrollment of 823 full-time students, and a faculty of 44 full-time instructors.

Alva is a city with many organizations--civic clubs, study clubs, and social organizations. There are 22 churches in the city.

The residents of Alva are, for the most part, employed in Alva, either in the operation of their own businesses or professional offices, or as employees of such business and professional people. Some of the residents commute to farms which they operate in the area surrounding Alva.

According to a newspaper survey<sup>2</sup> made in 1950, Alva

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<sup>2</sup>The Alva Review Courier, "Standard Market Data for Alva, Oklahoma" (Dallas, Texas: G. K. Wines, Market Data Research), 1950, p. 2.

is located at the center of a retail trading zone with a population of approximately 57,000 people. This retail trading zone, having a 50-mile radius, includes surrounding counties in northwest Oklahoma and south-central Kansas. The per capita retail sales for 1950 in the City of Alva only, according to this same newspaper survey, amounted to \$1,444.

In general, the business enterprises in Alva must be classified as small businesses in that, in relation to business enterprises throughout the United States, such elements as gross income, numbers of employees, and so forth, of Alva firms are limited. The kinds of businesses usually found in the average predominantly agricultural community are likewise found in Alva. The percentage of establishments in Alva in each of the common business classifications is approximately the same as the average for the entire country as reported in the Statistical Abstract of the United States.<sup>3</sup> Alva has a smaller proportion of manufacturing businesses and contract construction enterprises than the national average, but there is a somewhat larger proportion of service businesses.

#### Nature of Businesses

In this study, the businesses of Alva were classified

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<sup>3</sup>U. S. Bureau of the Census, Statistical Abstract of the United States: 1957 (Seventy-eighth edition; Washington, D. C., 1957), p. 482.

according to the categories given in the Statistical Abstract of the United States.<sup>4</sup> It was deemed advisable for the author to use these categories since no other systematic grouping of the businesses in the community was available. As stated in Chapter I, the classification of the United States Bureau of the Census does not include professional people; federal, county, and city offices; or schools, churches, and hospitals. These groups were added to the basic classification list utilized in this study.

For the purposes of this study, a representative sampling of approximately one-third of the businesses in Alva was assumed to be appropriate. In general, the sampling consisted of one-third of the businesses in each of the various classifications of business enterprises. In certain cases, the nature of the business enterprise determined, at least in part, whether it was included. For instance, out of twelve grocery stores in the community, the four chosen were a neighborhood grocery, an independent downtown grocery and meat market, a similar store that is a member of a voluntary chain, and a unit of one of the national retail grocery chains. Table I, page 42, summarizes the information relative to the classifications of business enterprises and the number and percentage of the total included from each group.

Analysis of the information in Table I makes it

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<sup>4</sup>Ibid.

TABLE I. CLASSIFICATION OF BUSINESSES IN ALVA, OKLAHOMA, BY MAJOR CATEGORIES

Classification	Businesses in Alva		Businesses Selected for This Study	
	Number	Per Cent	Number	Per Cent
Retail . . . . .	130	40.1	56	51.9
Service . . . . .	63	19.4	19	17.6
Institutional .	30	9.3	5	4.6
Finance, Insurance, and Real Estate . . . . .	24	7.4	9	8.3
Professional . .	23	7.1	5	4.6
Governmental Agencies . . .	18	5.6	3	2.8
Manufacturing .	13	4.0	5	4.6
Wholesale . . .	11	3.4	3	2.8
Public Utilities	10	3.1	2	1.9
Contract Construction .	2	0.6	1	0.9
Totals	324	100.0	108	100.0



apparent that retail business is predominant in Alva. The usual types of retail businesses found in a community are to be found in this group. The service businesses include hotels and other lodgings, personal service enterprises, business service firms, various types of repair services, and miscellaneous service businesses. The 30 institutional units in Alva consist of 22 churches, four schools, two hospitals, and two convalescent homes. The category "finance, insurance, and real estate" includes banks and loan companies, insurance agencies, and real estate brokers. Included in the professional classification are lawyers, dentists, doctors, osteopaths, optometrists, and veterinarians. The government agencies include all city, county, and federal offices in the community. The manufacturing group in Alva is primarily that of food production. Most of the wholesale activity is that of gasoline and oil distribution for the major oil companies. The public utilities represented in the community are, for the most part, local offices of large corporations which do very little of the accounting work at these local offices.

Because of the nature of some of the classifications and of the types of accounting records maintained by the businesses within these classifications, the selection of firms from some classifications is a smaller sampling than from some of the other categories. The institutional group has 30 units, but 22 of these are churches. The author

considered that two churches would be a sufficient sampling of the kind of accounting records used by churches. Other groups in which fewer than one-third of the firms were selected are service businesses, whose accounting consists primarily of recording receipts and expenses; professional people, who also maintain receipts and expense records as their accounting systems; governmental agencies, which as a rule, have only the accounting for their expenditures as budgeted; wholesale businesses, which are, in Alva, mainly district distributors for oil companies; and public utilities, which are, for the most part, local offices of large corporations that have all, or the major part, of their accounting done at home or regional offices.

With approximately one-third of all the businesses in each classification selected for inclusion in this study, the personnel engaged in the accounting activities of the businesses were interviewed by the author. The interviews were conducted in the business offices of the enterprises so that it was possible to refer to actual accounting records as the interviews were conducted. The comprehensive interview guide (see Appendix A) was utilized to ensure a completeness and a high degree of uniformity in the data obtained. The interviews ranged in time from 15 minutes to two hours depending upon the extensiveness of the records studied and the interest of the people concerned. The interview time averaged approximately 45 minutes.

### Types of Ownership and Management

Businesses operated for profit are usually classified as single proprietorships, partnerships, and corporations. The cooperative is sometimes included with the three types just mentioned. The profit-making businesses of Alva are primarily the single-proprietorship type. Of 108 business units involved in this study, 54 are single proprietorships, 21 are partnerships, 25 are corporations, one is a cooperative, and nine are non-profit organizations, two of which operate under corporate management. Of the 25 corporations, 17 are local organizations; the other corporate enterprises are branch offices or units of retail chains varying in size.

The majority of the businesses in Alva are managed by their owners. Of the 108 businesses included in this study, 79 are owner-managed and 29 are employee-managed. In classifying the background information in this section, the author assumed a business to be operated by its owner if it was a small corporation in which the owner was the manager and principal stockholder. Such a situation exists in several of the small, close corporations in which members of families are the only stockholders and also the active managers of the businesses. The 108 enterprises involved in this investigation consist of 6 units of retail chains, 4 members of voluntary chains, 5 agencies, 84 independently-operated businesses, and 9 institutional and government offices.

Accounting Systems Utilized

The accounting systems used by 44 of the businesses involved in this study are based upon single-entry bookkeeping procedures.<sup>5</sup> Double-entry bookkeeping procedures are used by 64 of the enterprises. Double-entry bookkeeping is basic to the accounting systems existing in the retail firms, financial firms, and manufacturing enterprises, whereas single-entry bookkeeping is used principally by service businesses, professional people, institutions, government agencies, and some of the smaller retail firms. All of the incorporated businesses rely upon double-entry bookkeeping procedures.

Forty, or 37.0 per cent, of the 108 businesses included in this study use accounting systems that were designed by accountants for the individual businesses. There are 16 businesses using accounting systems designed by manufacturers, wholesalers, or trade or professional associations. Commercial systems are used by 24 businesses, including two that have been set up by equipment manufacturers for businesses using their accounting equipment. In the 24 businesses, especially prepared accounting forms (such as Greenwood, Beck-Nor, Penny Record Company, Prenzel, Federal and State Tax Record, Simplex, Manley, and Garner) are utilized. The remainder of the 108 businesses are using systems that the owners or managers have developed themselves. In each of 7

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<sup>5</sup>See Page 10 of this report for definitions of "single-entry" and "double-entry."

cases, the origin of the system was not known by the present accountant because it was developed prior to the time he began working for the particular business; but the accountant assumed that a previous accountant or manager had designed the accounting system.

Seventy-three, or 67.6 per cent, of the proprietors or managers maintain their own accounting systems. Of the remaining 35 of the 108 businesses included in this study, 31 employ people in accounting positions to maintain their records. Four of the business owners interviewed had an outside accounting firm maintain their accounting records. Many of the others utilized outside accountants in the performance of certain of the accounting activities.

In most cases, the accounting systems of the 108 businesses involved in this investigation have been in use since the businesses were started. Several of the interviewees indicated that although the accounting system had been in use since the business began, it had been modified or added to as the business grew and such modifications were necessary. Nineteen of the 108 businesses had been using their accounting systems for more than 20 years. Systems in use from 15-19 years were reported by 5 firms. Twenty-one had been using their systems from 10 to 14 years; 30, from 5 to 9 years; and 17 firms, from the start of the businesses up to 4 years. Sixteen of the interviewees reported that they did not know how long the accounting systems for their

businesses had been in use.

### Accounting Personnel

The 108 businesses included in this investigation involve a total of 1,035 workers; 665 men and 370 women. The range in number of workers among the businesses is from one to 88. Indicating the small-business nature of the enterprises in Alva, is the fact that one business has only one worker, there are 20 businesses having only two workers, and 9 having only three. Six of the enterprises have no male employees, and 19 employ no women. The largest number of men employed is 66, and the largest number of women is 46.

A total of 141 people are engaged in fulfilling accounting duties in the 108 businesses involved in this study. Seventy-three of the 141 are the owners themselves or managers of the businesses who maintain their own accounting records. In 88 of the enterprises, all of the accounting is done by one person. Nine of the businesses employ two persons to perform accounting duties; 5 have three such employees; one has four; one firm utilizes 16 people in accounting positions; and four businesses have their accounting done by an outside accountant.

### Summary

The data for this study were secured by means of interviews with the owners or managers of 108 selected businesses in Alva, Oklahoma, and with the personnel of these

businesses responsible for maintaining accounting records.

There are more than twice as many single proprietorships than either of the other two major types of business ownership--the partnership and the corporation. The majority of the businesses are managed by their owners, and more than half of the owners or managers maintain their own accounting records. Double-entry bookkeeping procedures are used by approximately two-thirds of the businesses. It is interesting to note that more service businesses use single-entry bookkeeping procedures than do any other types of businesses. Almost half of the enterprises have systems that have been designed by accountants especially for the use of the particular businesses involved. A total of 141 persons concerned with accounting procedures and practices were involved in this investigation.

## CHAPTER IV

### ACCOUNTING SYSTEMS AND PRACTICES

The data presented in this chapter were obtained from the owners or managers of 108 selected businesses in Alva, Oklahoma. The data, in general, pertain to accounting systems and practices utilized in maintaining the financial records of the 108 businesses. Specific data were collected relative to the accounting functions accomplished, business papers used as the basis for accounting entries, kinds of journals and ledgers utilized, activities at the close of fiscal periods, kinds of analyses and comparisons made, business machines used for accounting purposes, and other miscellaneous matters pertinent to accounting.

#### Functions of Accounting Systems

The 108 businesses involved in this investigation maintain their accounting systems to accomplish seven major functions, as follows: furnishing of income tax information, managerial control, inventory control, credit control, volume comparisons, cost control, and expense control. In each business investigated in this study the major function, as well as certain secondary functions, of the accounting system



was determined.

### Major Functions

Of the 108 businesses included in this study, 51, or 47.2 per cent, maintain their accounting systems primarily for the purpose of securing information for income tax returns. Eight of these 51 enterprises did not indicate any secondary functions accomplished by their accounting systems. There are 28 business firms which have as the major purpose of their accounting systems the general managerial control of the businesses; 15 of the businesses indicated the major purpose to be comparison of volume of business with previous years to determine how well the business meets quota requirements or competition; nine of the firms have expense control as the major function of their accounting systems, whereas four have cost control as their primary function. Only one business has inventory control as its major purpose, and in no business was credit control indicated as the principal function of the accounting system.

### Secondary Functions

Many of the businesses have more than one secondary reason for maintaining accounting records. Numerous businesses indicated as secondary the function of volume comparison or some kind of comparison of the current year's business with that of preceding years. Sixty-nine, or 63.9 per cent, of the 108 businesses involved in this investigation make

comparisons of the current year with the year preceding, or comparisons of a month with the same month of the year preceding. These comparisons vary from a casual check of the year's business volume, as compared to the preceding year's business volume, to a detailed comparison of gross volume, gross profit, net profit, expenses, and return on investment.

Since the accounting records of any business must provide basic income tax information, this function was considered a secondary purpose for each of the accounting systems that had another function as its primary purpose. There were 48 businesses that had the providing of income tax information as a secondary purpose of their accounting systems. Nine of the businesses included in this study are non-profit organizations, and, therefore, are not concerned with income tax information. Twenty-six of the enterprises have inventory control as a secondary function of their accounting systems; 20 of the firms use their records for cost control purposes; 18 list expense control as one of the purposes of maintaining records; nine use their accounting systems for general managerial control; and three list credit control as one of the functions of maintaining accounting systems.

The evidence in this study makes it apparent that the 108 businesses involved in this investigation maintain accounting records to accomplish seven functions. The majority of the units utilize their accounting systems either to secure the information required in preparing income tax

returns or for general managerial control. Table II, page 54, summarizes the information relative to functions of accounting systems as determined in this study.

### Business Papers Utilized

The business papers used by the 108 businesses involved in this study are classified into five major types dealing with: (1) sales of goods or services, (2) purchases of merchandise, materials, and supplies, (3) cash received, (4) cash paid out, (5) miscellaneous operations.

### Sales Papers

There are many kinds of business papers used to give evidence of sales of goods and services. The most commonly-used business paper is the sales ticket. Seventy-four, or 68.5 per cent, of the 108 businesses involved in this study utilize sales tickets or variations thereof such as sales invoices or counter tickets. Businesses selling large-unit merchandise have sales contracts as the basis for their sales entries. Also using sales contracts are those businesses that sell on credit terms, the forms being conditional sales contracts or layaway contracts. Ten firms use some type of contract as the basis of their sales entries. Businesses that offer repair service or construction work have job tickets or repair orders as evidence for their sales entries. Other miscellaneous sales papers utilized are premium notices, admission tickets, run-sheets on advertising,

TABLE II. FUNCTIONS OF ACCOUNTING SYSTEMS OF 108 SELECTED BUSINESSES IN ALVA, OKLAHOMA

Functions	Reported as Major Functions		Reported as Secondary Functions	
	Number	Per Cent	Number	Per Cent*
Income tax information . .	51	47.2	48	44.4
Managerial control . . . .	28	25.9	9	8.4
Volume comparisons . .	15	13.9	69	63.9
Expense control .	9	8.4	18	16.7
Cost control . .	4	3.7	20	18.5
Inventory control . . . .	1	0.9	26	24.1
Credit control .	--	----	3	2.8
No secondary function . . .	--	----	8	7.4
Totals	108	100.0	--	----

\*Since some of the firms had more than one secondary function, this column does not total 100 per cent.

patients' tickets, statements of account and summaries of salesmen's daily sales sheets.

#### Purchases Papers

This study reveals that cash and charge purchases of merchandise, materials, and supplies are usually recorded directly from invoices. Seventy-one, or 65.7 per cent, of the 108 businesses included in this investigation, record purchases directly from the purchase invoice. Many of the businesses involved in this study reported that they do not record purchases of supplies until they pay cash for them. Some of the smaller businesses also do not record purchases of merchandise until they pay for them. For these firms, entries for all purchases are made from checks or paid-out slips, constituting cash payment papers. Entries for purchases are made from purchase orders by four firms and from statements from creditors by three. Miscellaneous business papers from which purchase entries are made are claims, counter tickets, cash-purchase tickets, wheat and other produce reports, and gas bills.

#### Cash Receipts Papers

To form the basis for entries of cash receipts, duplicates of receipts, or counter tickets for receipts on account, are used by 54, or 50.0 per cent, of the 108 businesses included in this investigation. Twenty-six of the firms make their entries concerning cash receipts from cash-

register tapes, cash-register readings, or cash-drawer counts. Other miscellaneous papers used as the basis for entries concerning cash receipts are checks, credit slips, warehouse receipts, deposit slips, debit slips, envelopes from members, daily cash reports from towns, and notes receivable.

#### Cash Payments Papers

Cash payments are entered on the records from checks or check stubs by 96, or 88.9 per cent, of the 108 firms involved in this study. Paid-out slips for small payments are used by 23 of the businesses. Other papers used as evidence of cash payments are warrants, refund slips, pick-up slips, and trade acceptances.

#### Miscellaneous Papers

A few miscellaneous papers are used by some of the businesses for particular types of transactions. Time sheets, showing time spent on a client's work, are used by some professional service businesses as the basis for charges to clients for services performed. The cancellation notice is a form peculiar to insurance companies. One of the few manufacturing concerns in Alva uses a daily production and order sheet to show daily production of standard items and production of special orders. Pledge cards are used by churches and other non-profit organizations whose members support those organizations by their contributions.

The majority of the business firms of Alva, as

indicated by the foregoing information, use standard types of business papers as the basis for entries in their accounting records. A summary of the information relative to business papers utilized is presented in Table III, page 58.

### Journals and Ledgers Utilized

The 108 businesses involved in this investigation use a variety of journals and ledgers in maintaining their accounting systems. The majority of the business firms use one or more of the standard types of journals and ledgers, but some of the enterprises have accounting records that are peculiar to the specific kinds of business involved.

#### Journals

The accounting journals used by the 108 businesses included in this study may, in general, be classified according to five standard types: (1) general, (2) cash receipts, (3) cash disbursements, (4) sales, and (5) purchases. Within each of these classes there are a number of variations. Five of the enterprises use no journals for recording transactions but enter items directly to ledgers. Each of the 103 remaining business units uses one or more journals for recording business transactions.

General journals.--Nineteen, or 17.6 per cent, of the 108 businesses included in this study utilize general journals of some type. Standard two-column journals are used by 12 of the 108 businesses. The journal form used by one of these

TABLE III. BUSINESS PAPERS UTILIZED BY 108 SELECTED  
BUSINESSES IN ALVA, OKLAHOMA

Kinds of Transactions and Types of Papers Used	Number of Firms	Per Cent* of 108 Business Firms
<u>Sales:</u>		
Sales ticket . . . . .	74	68.5
Sales contract . . . . .	10	9.3
Job orders . . . . .	9	8.4
Miscellaneous sales forms .	20	18.5
<u>Purchases:</u>		
Purchase invoice . . . . .	71	65.7
Purchase order . . . . .	4	3.7
Monthly statement . . . . .	3	2.8
Miscellaneous purchase forms	11	10.2
<u>Cash receipts:</u>		
Duplicate receipts . . . . .	54	50.0
Cash register tapes . . . . .	26	24.1
Miscellaneous cash receipts forms . . . . .	22	20.4
<u>Cash payments:</u>		
Checks . . . . .	96	88.9
Paid-out slips . . . . .	23	21.3
Miscellaneous cash payments forms . . . . .	6	5.6
<u>Miscellaneous papers</u> . . . . .	9	8.4

\*Because of multiple types of data, this column does not total 100 per cent.



12 business units consists of a journal ticket for each transaction entry. The ticket used is approximately the size of a check and is printed and accumulated in the form of a pad. Other variations of the general journal are the day book, general register, summary of a day's entries, and a type summary of a day's transactions.

Cash receipts journals.--Cash receipts journals in various forms are used by 50, or 46.3 per cent, of the 108 businesses involved in this investigation. Of these 50 firms, 18 record cash receipts in standard one-column cash receipts books. Cash receipts-sales journals are used by six businesses; cash receipts-accounts receivable journals, by three firms; and a cash receipts-general journal, by one firm. Five enterprises maintain their records of cash receipts only on their check stubs. Columnar cash receipts books are used by five enterprises. Other forms used for recording cash receipts are day books, deposit journals, tax receipts and miscellaneous receipts journals, reserve cash journals, and daily cash reports.

Cash disbursements journals.--This study reveals that records of cash disbursements are maintained in separate journals by 41, or 38.0 per cent, of the 108 businesses included in this study. Eighteen of the businesses use standard one-column cash disbursement books. Check registers are used by 12 of the enterprises. Five of the firms use columnar cash disbursements records. Miscellaneous cash disbursements

records are combination disbursements and purchases journals, check stubs, payment registers, combination check and expense registers, and combination voucher registers and general journals.

Sales journals.--Thirty-eight, or 35.2 per cent, of the 108 businesses involved in this study maintain some type of sales records separate from other records. Departmentalized sales books are maintained by 10 of the businesses, whereas two other firms maintain separate sales books for each department. Five businesses utilize sales books which show their daily, weekly, and monthly sales. Daily sales sheets are used by 10 businesses. Daybooks for sales are used by three businesses. Other sales forms used are pledge books, charge books for dormitories, loan journals, insurance registers, and combination accounts receivable and sales journals.

Purchases journals.--Purchases journals are used by 26, or 24.1 per cent, of the 108 businesses involved in this study. One-half of the 26 firms use one-column purchases books. Warrant and claim registers are used by six units. Copies of purchase orders form the purchases journals for two enterprises, and receiving reports are used as purchases journals in two other firms. A columnar purchases journal is used by one firm; a purchases invoice file is the purchases journal for one firm; and an inventory sheet is used as the purchases journal by one business.

Combined cash journals.--Twenty-six, or 24.1 per cent, of the 108 business units included in this study use combined or columnar cash journals, or some variation thereof, as their only journals. Twelve of these firms use combined cash journals in which all entries are made. Combined cash books--receipts and disbursements--are used by six businesses. Cash receipts and payments analysis sheets, showing daily, weekly, and monthly totals, are used by five firms. Other journals of this type are bank reconciliation journals for cash receipts and disbursements, and cash journals in which all entries except sales and purchases are recorded.

Miscellaneous or auxiliary journals.--Expense journals are used by 12 firms, and payroll journals are used by eight businesses. A journal for school district expense is maintained by one unit. Supplementing the journals in use by the various businesses are reports of different kinds used to accumulate transactions under sundry headings so that totals may be entered in the journals. These include daily reports of all business, daily sales distributions, daily cash reports, weekly cash reports, monthly reports of all business, monthly expense distributions, tri-monthly cash reports, and cost of sales reports.

#### Ledgers

The ledgers in use by the 108 businesses involved in

this investigation consist of general ledgers, accounts receivable ledgers, accounts payable ledgers, and a few miscellaneous ledgers used for special purposes by certain businesses. Twenty-one, or 19.4 per cent, of the 108 businesses maintain no ledgers. The remaining 87 business units use one or more of the ledgers mentioned above.

General ledgers.--General ledgers, in bound books, loose-leaf, or card forms, are used by 37, or 34.3 per cent, of the 108 businesses involved in this study. Although not referred to as general ledgers, the appropriations ledgers, used by three units, are, in reality, general ledgers for those units.

Accounts receivable ledgers.--Accounts receivable ledgers in various forms are used by 76, or 70.4 per cent, of the 108 businesses included in this study. Of these 76 firms, 35 use loose-leaf books, 24 use files of sales tickets, and 10 use cards filed in trays. Four others use visible-card types of accounts receivable ledgers. Two units have members' ledgers showing pledges and payments thereon. One firm uses a contracts ledger.

Accounts payable ledgers.--Forty-one, or 38.0 per cent, of the 108 businesses of Alva, Oklahoma, involved in this investigation utilize various forms of accounts payable ledgers. Loose-leaf ledgers are used by 15 of the firms; files of purchases invoices make up the accounts payable ledgers for 19 businesses. Other accounts payable ledger

forms are cards, ledger sheets in trays, claim registers, invoice registers, and jobber's accounts payable registers.

Miscellaneous ledgers.--Miscellaneous ledgers and registers peculiar to certain businesses are used. These include such records as liability ledgers for loans made, patronage ledgers, stockholders' ledgers, taxpayers' ledgers, inventory ledgers, bond ledgers, meter deposits ledgers, policy registers, ticket ledgers, cost ledgers, payroll ledgers, and expense ledgers. A total of 32 firms use one or more of these records. The most commonly used ledgers in this group are the expense ledgers used by eight businesses.

The businesses of Alva, Oklahoma, in general, utilize the standard types of journals and ledgers in maintaining their accounting records, as indicated by the preceding information, although there is a wide variety of other journals and ledgers in use. A summary of the foregoing information is presented in Table IV, page 64.

#### Activities at the Close of Fiscal Periods

Included in the presentation of the data concerning activities at the close of the fiscal periods are five kinds of information: (1) length and dates of fiscal periods, (2) accounting bases, (3) inventory procedures, (4) closing procedures, and (5) financial statements.

TABLE IV. JOURNALS AND LEDGERS USED BY 108 SELECTED  
BUSINESSES IN ALVA, OKLAHOMA

Kinds of Journals and Ledgers	Number of Firms	Per Cent* of 108 Business Firms
<u>Journals:</u>		
General . . . . .	19	17.6
Cash receipts . . . . .	50	46.3
Cash disbursements . . . . .	41	38.0
Sales . . . . .	38	35.2
Purchases . . . . .	26	24.1
Combined cash journal . . . . .	26	24.1
Miscellaneous or auxiliary . . . . .	50	46.3
No journals . . . . .	5	4.6
<u>Ledgers:</u>		
General . . . . .	37	34.3
Accounts receivable . . . . .	76	70.4
Accounts payable . . . . .	41	38.0
Miscellaneous . . . . .	32	29.6
No ledgers . . . . .	21	19.4

\*Because of multiple types of data, this column does not  
total 100 per cent.

### Length and Dates of Fiscal Periods

The term "fiscal period" as used in this report is the accounting period, defined appropriately as "the period of time for which an operating statement is customarily prepared."<sup>1</sup>

All but two of the 108 businesses included in this study have fiscal periods one year in length. These two businesses close their accounting records twice a year, on June 30 and December 31. Of the remaining 106 businesses, 84, or 77.8 per cent of the total, have the calendar year as their fiscal years; and 22 firms use fiscal years other than the calendar year. The fiscal year, July 1 to June 30, is used by nine of the units, all but two of which are governmental offices or institutions. The most popular fiscal period among the retail businesses not using the calendar year is February 1 to January 31, used by five firms.

### Accounting Bases

For the purpose of this study, the terms "cash basis" and "accrual basis" are defined as follows:

Cash basis--a basis of keeping accounts, . . . whereby revenue and expense are recorded on the books of accounts when received and paid, respectively, without regard to the period to which they apply.<sup>2</sup>

Accrual basis--the method of accounting whereby revenue and expense are identified with specific periods

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<sup>1</sup>Eric L. Kohler, A Dictionary for Accountants (New York: Prentice-Hall, Inc., 1952), p. 10.

<sup>2</sup>Ibid., p. 78.

of time such as a month or year.<sup>3</sup>

The majority of the business firms in Alva maintain their accounting records on a cash basis. Of the 108 businesses involved in this investigation, 85, or 78.7 per cent, of the enterprises use the cash basis of accounting in maintaining their accounting records. The remaining 23 business units use the accrual basis of accounting.

#### Inventory Procedures

Of the 108 businesses included in this study, 70, or 64.8 per cent, take physical inventories once a year or oftener. Eight businesses that have stock or materials of types commonly subject to inventory count do not take inventory. For 30 of the business units, inventory procedures are not applicable because they do not handle merchandise for sale or materials for processing. Perpetual inventories are maintained in 21 of the units; all of these businesses take physical counts to check on the perpetual inventory records once or twice a year. Any discrepancies are taken care of by adjusting entries. The usual method of taking inventory is to have two people work together, one counting and the other entering on the inventory sheets. The inventory sheets may be printed sheets or simply notebooks used for inventory listing. Extensions and footings of the inventory sheets are usually done by the accountants or

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<sup>3</sup>Ibid., p. 16.



managers.

The method of valuation of the inventory is an important factor in determination of net income. The majority of the firms involved in this study use original cost as the basis for valuation of their inventories. Sixty-four of the 70 firms that take inventories use the cost method of valuation. For inventory purposes, retail price reduced by per cent of gross profit is used by three businesses; cost or market value, whichever is lower, is used by two firms; and "lifo" (last-in, first-out) is used by one. Three of the firms add freight to the cost of the items on which the freight is paid.

#### Closing Procedures

Preliminary to closing the books for those businesses having general ledgers is the taking of a trial balance. The trial balance is usually taken once a month for the purpose of determining the equality of debits and credits, and the accuracy of arithmetical computations. Thirty-two of the businesses having general ledgers reported that they take monthly trial balances.

The accounting procedures followed to ascertain the net income or loss for a fiscal period and to close out the current period's records are of two major kinds: totaling weekly or monthly records and recapitulating totals to find yearly amounts, and standard closing procedures of journal entries posted to ledger accounts and ruling those accounts.

Totaling of weekly or monthly records or journals and adding the totals to determine the yearly amounts is the practice followed by 54, or one-half, of the 108 businesses involved in this study. The standard closing procedure of making adjusting and closing journal entries, posting these entries to ledger accounts, and ruling the ledger accounts, is the procedure followed by 27 firms. Eight businesses total and rule all ledger accounts once a year, but do not use journal closing entries. Nine of the businesses are local units or branches of national firms in which all of the closing activity is taken care of at regional or home offices. Four firms had all of their closing work done by outside accountants and the exact nature of the closing process was not known by the firms' personnel. Other closing procedures are monthly closing entries on the monthly statement, and a monthly totaling of expenses but not receipts or sales.

#### Financial Statements

Financial statements are prepared annually by most of the businesses although a few prepare semi-annual statements, quarterly statements, and monthly statements. The two statements most frequently prepared are the balance sheet and the profit and loss statement. All financial statements for nine of the businesses are prepared by their home or regional offices.

Balance sheets are prepared annually by 47, or 43.5

per cent, of the 108 businesses included in this investigation. In eight of these cases, balance sheets are prepared as a part of the income tax return procedures and not as separate financial statements. Semi-annual balance sheets are prepared by four enterprises; quarterly, by four businesses; and monthly, by six firms.

Profit and loss statements, as separate statements apart from income tax returns, are prepared by 47 of the 108 business units involved in this study. Of this group, 14 prepare monthly and year-to-date profit and loss statements. Forty-one of the business units prepare their profit and loss statements as part of their income tax computation procedures. Profit and loss statements are prepared semi-annually by two firms; quarterly, by two; and monthly, by 16 businesses.

Miscellaneous statements prepared by some of the businesses are those such as statement of appropriations and expenditures, cost statement, Blue Cross statement, bond buyer's statement, expense statement, cash record, volume of wheat, statement of commodities, plant additions and retirements, and analysis and aging of accounts receivable.

In summary, the majority of the 108 businesses involved in this study have fiscal periods one year in length, and have as their fiscal year the calendar year. Almost 80 per cent of the businesses maintain their accounting systems on the cash basis rather than on the accrual basis. For those businesses which take inventory, the usual procedure

is to make a physical count of the goods on hand once a year and to value the inventory at original cost. More businesses use the method of totaling journals and determining net income by means of an income and expense statement than use the standard procedure of closing the books by means of journal entries. The usual financial statements prepared at the close of the fiscal period are the profit and loss statement and the balance sheet. Table V, pages 71-72, includes considerable detailed information relative to accounting activities at the close of fiscal periods as discussed in the preceding pages.

#### Kinds of Analyses and Comparisons Made

Financial analyses and comparisons made by the 108 businesses included in this investigation are of two general types: comparisons of volume of business with previous months or years, and computation of profit ratios and analyses. It is of interest, too, whether the analyses and comparisons are made regularly or occasionally as a casual check on the business, and whether the comparisons are yearly, quarterly, monthly, weekly, or daily. Ten businesses were making no comparisons or analyses of any kind, and six units of chain organizations were having all such comparisons and analyses done at their home office.

#### Volume Comparisons

Comparisons of volume of current business with that

TABLE V. ACCOUNTING ACTIVITIES AT THE CLOSE OF FISCAL PERIODS AS REPORTED BY 108 SELECTED BUSINESSES IN ALVA, OKLAHOMA

Information Concerning Accounting Activities at Close of Fiscal Periods	Number of Firms	Per Cent of 108 Firms
<u>Length of fiscal periods:</u>		
One year . . . . .	106	98.2
Six months . . . . .	2	1.9
<u>Dates of fiscal periods</u>		
Calendar year . . . . .	84	77.8
July 1 - June 30 . . . . .	9	8.4
February 1 - January 31 . . . . .	5	4.6
January 1 - June 30; July 1 - December 31 . . . . .	2	1.9
May 1 - April 30 . . . . .	2	1.9
June 1 - May 31 . . . . .	2	1.9
April 1 - March 31 . . . . .	1	0.9
October 1 - September 30 . . . . .	1	0.9
November 1 - October 31 . . . . .	1	0.9
December 1 - November 30 . . . . .	1	0.9
<u>Accounting basis:</u>		
Cash basis . . . . .	85	78.7
Accrual basis . . . . .	23	21.3
<u>Inventory procedures:</u>		
Physical count only . . . . .	48	45.4
Perpetual inventory with physical count . . . . .	21	19.4
Do not take inventory . . . . .	8	7.4
Inventory procedure does not apply . . . . .	30	27.8
<u>Inventory evaluation:</u>		
Original cost . . . . .	64	59.3
Retail price reduced by per cent of gross profit . . . . .	3	2.8
Cost or market, whichever is lower . . . . .	2	1.9
"Lifo" (last-in, first-out) . . . . .	1	0.9
Freight added to cost per item . . . . .	3	2.8

TABLE V. Continued

Information Concerning Accounting Activities at Close of Fiscal Periods	Number of Firms	Per Cent of 108 Firms
<u>Accounting procedures for determination of net income:</u>		
Trial balance . . . . .	32	29.6
Total weekly or monthly jour- nals and recapitulate totals at end of year . . . . .	54	50.0
Standard closing procedure . .	27	25.0
Total and rule ledger accounts . .	8	7.4
All closing at home office . .	9	8.4
Closing done by outside accountant . . . . .	4	3.7
Miscellaneous closing procedures . . . . .	6	5.6
<u>Financial statements prepared:</u>		
Profit and Loss Statements:		
Separate from income tax return--annually . . . . .	33	30.6
Separate from income tax return--monthly and year to date . . . . .	14	13.0
As part of income tax return	41	38.0
Monthly . . . . .	16	14.8
Quarterly . . . . .	2	1.9
Semi-annually . . . . .	2	1.9
Balance Sheets:		
Separate from income tax return--annually . . . . .	39	36.1
As part of income tax return --annually . . . . .	8	7.4
Monthly . . . . .	6	5.6
Quarterly . . . . .	4	3.7
Semi-annually . . . . .	4	3.7
Miscellaneous statements . . .	16	14.8

in previous years are made by 72, or 66.7 per cent, of the 108 businesses involved in this study. In 17 firms, it was reported that volume comparisons were extended to sales only. Fourteen businesses made comparisons of each year's expenses with those of previous years, and six compared current costs only to the previous years' costs.

The types of sales and purchases records maintained also provided some comparisons of volume of sales and purchases. Sales records provided daily sales comparisons for 41 firms; weekly, for 5 firms; monthly, for 44 businesses; month and year-to-date, for three businesses; and yearly, for two businesses. Sales records were maintained at home offices for two retail chain units. One unit of a retail chain reported use of a sales record which provides for recording sales for a six-year period on one page. Twenty-two businesses keep departmentalized records of sales. Eight had no sales record, and 33 were not engaged in selling.

Records of purchases were not as detailed in many cases as were the records for sales. Daily purchases records were being maintained by 12 businesses; weekly records, by seven firms; and monthly records, by 38 business units. Twenty firms maintain departmentalized records of purchases. All purchase records are maintained at the home offices of five businesses. One business maintains a record of purchases on order and received. Twenty-one businesses have no purchases records, and again 33 do not purchase materials for

processing or merchandise for resale.

### Profit Ratios and Analyses

The most-commonly used kind of profit ratio used in the 108 businesses included in this investigation involves computation of the per cent of net profit for each year. Fifteen, or 13.9 per cent, of the 108 businesses compute their per cents of net profit for each year. Nine firms compute per cent of gross profit on sales, and six compute the per cent of returns on investments. Two firms make a more complete analysis of profit, including such ratios as per cent of net profit, per cent of gross profit, amount and per cent of increase or decrease in sales, purchases, expenses, and profits. One business makes an analysis of its receivables. One business computes a per cent of volume of business and profit by routes.

### Cost Computations

Computation of costs of products or services is not calculated by many of the businesses in Alva. Seventy-four, or 68.5 per cent, of the 108 businesses involved in this investigation do not compute any costs, such as unit cost to manufacture, cost per hour or day of operations, cost per hour or day of service rendered, or distribution cost. Manufacturing cost per unit is calculated by seven businesses, cost of jobs on contract are computed by five firms, costs per meal broken down to per cent for service and per cent for



food are computed by five firms, costs of parts on a percent-of-selling-price basis are computed by three businesses, and costs per hour of service are calculated by three firms. Other kinds of costs computed include cost of repair jobs, cost per day, cost per mile, cost per line, cost per meter, cost per route, cost per entry (service charge for banks), processing cost for labor and materials, per capita cost, cost per man hour, and per diem cost of meals.

#### Miscellaneous Comparisons

Miscellaneous comparisons made are ratio of purchases to sales, size of inventory, budget to expenses, loans to deposits, deposits to capital, trends of business, weekly check on bank account and receivables, and comparisons with averages of similar firms over the nation provided by manufacturers or associations.

#### Periods of Comparison

The majority of the businesses in Alva make regular comparisons of volume of business. Seventy-six, or 70.4 per cent, of the 108 businesses included in this study regularly make comparisons of volume of business or other analyses or comparisons. Twenty-one firms reported that their comparisons were only casual checks from time to time to see how their businesses compared with that of previous years. Eleven firms made no comparisons or analyses of any kind.

The comparison of this year's business with that of the previous year is the most frequently-used kind of comparison. It is made by 49, or 45.4 per cent, of the 108 businesses involved in this investigation. Comparing business for the current month (or longer period, but less than a year) with the same period of the previous year is the type of comparison made by 25 of the business units. Twelve firms compare business for the current month with that of the preceding month, and ten compare business for the month and year-to-date with that of the month and year-to-date of the preceding year. Comparisons are made weekly by four firms; quarterly, by three firms; and daily, by one business.

More of the 108 businesses included in this study make comparisons of volume of business with that of previous years or periods than make any other kinds of comparisons or analyses. Of the other types of ratios and analyses developed, per cent of net profit is computed by more firms than any other ratio. The majority of the firms make their comparisons regularly, and most of these comparisons are the current year's volume of business with that of the preceding year. A summary of the information concerning comparisons and analyses is presented in Table VI, pages 77 and 78.

#### Business Machines

A variety of business machines are utilized in the 108 businesses involved in this study for the purpose of

TABLE VI. KINDS OF ANALYSES AND COMPARISONS MADE BY 108  
SELECTED BUSINESSES IN ALVA, OKLAHOMA

Information Concerning Kinds of Analyses and Comparisons Made	Number of Firms	Per Cent of 108 Firms
<u>Volume comparisons:</u>		
Volume of business with previous years . . . . .	72	66.7
Volume of sales with previous years . . . . .	17	15.7
Amount of expenses with previous years . . . . .	14	13.0
Costs with previous years . . .	6	5.6
<u>Sales analyses:</u>		
Daily . . . . .	41	38.0
Weekly . . . . .	15	13.9
Monthly . . . . .	44	40.7
Month and year-to-date . . . . .	3	2.8
Yearly . . . . .	2	1.9
Departmentalized . . . . .	22	20.4
Records maintained at home office . . . . .	2	1.9
<u>Purchases analyses:</u>		
Daily . . . . .	12	11.1
Weekly . . . . .	7	6.5
Monthly . . . . .	38	35.2
Departmentalized . . . . .	20	18.5
Records maintained at home office . . . . .	5	4.6
Record of purchases on order and received . . . . .	1	0.9
<u>Profit ratios and analyses:</u>		
Per cent of net profit . . . . .	15	13.9
Per cent of gross profit . . . . .	9	8.4
Return on investment . . . . .	6	5.6
Profit analysis . . . . .	2	1.9
Analysis of receivables . . . . .	1	0.9
Per cent of business and profit by routes . . . . .	1	0.9

TABLE VI. Continued

Information Concerning Kinds of Analyses and Comparisons Made	Number of Firms	Per Cent of 108 Firms
<u>Cost computations:</u>		
Manufacturing cost per unit . .	7	6.5
Cost of job on contracts . . .	5	4.6
Cost per meal . . . . .	5	4.6
Cost of parts . . . . .	3	2.8
Cost per hour of service . . .	3	2.8
Miscellaneous cost computations	11	10.2
<u>Miscellaneous comparisons:</u>		
Expenses to budget . . . . .	7	6.5
Trends of business . . . . .	2	1.9
Comparison with national average . . . . .	6	5.6
Miscellaneous . . . . .	5	4.6
<u>Regularity of comparisons:</u>		
Regularly or periodically made	76	70.4
Casually made . . . . .	21	19.4
No comparisons made . . . . .	11	10.2
<u>Periods of comparison:</u>		
Current year to previous year .	49	45.4
Month or period to same month or period of previous year .	25	23.2
Current month to preceding month . . . . .	12	11.1
Month and year-to-date with same month and year-to-date of preceding year . . . . .	10	9.3
Week to same week of preceding year . . . . .	4	3.7
Quarter to same quarter of preceding year . . . . .	3	2.8
Day to same day of preceding year . . . . .	1	0.9

maintaining accounting records. Three types of machines are used widely by the different businesses. These are adding-listing machines, cash registers, and typewriters.

One or more adding-listing machines are used by 94, or 87.0 per cent, of the 108 businesses involved in this investigation. This group consists of a variety of makes of machines including 10-key and full-keyboard adding-listing machines, both manually- and electrically-operated.

Cash registers are used by 52, or 48.2 per cent, of the 108 businesses included in this study. The majority of these businesses have only one cash register, but several firms have two or more machines. In some businesses, provision is made for departmentalization of sales as they are rung up on cash registers. For instance, cash registers in use in grocery stores may provide for departmentalization three ways in terms of groceries, produce, and meats; cash registers used in service stations may provide for such specifics as gasoline, oil, tires, and other accessories. Cash registers in use by two firms were equipped with tapes upon which the users wrote the transactions, indicating items to be debited or credited, thus providing a method for classifying and recording paid-out items. Several of the cash registers in use are equipped with paid-out keys, so that records of the amounts paid out during each day are shown on the cash-register tapes. Some of the cash register manufacturers provide printed check-up slips to be used to check the

registers at the end of each day. In some cases these check-up slips are used as the basis for recording cash transactions for each day.

Sixty-nine, or 63.9 per cent, of the 108 businesses involved in this study, use typewriters to some extent in maintaining their accounting records. The most common uses of typewriters are in sending out statements of account to customers or clients and in the preparation of financial statements at the close of fiscal periods. One accountant uses his typewriter to post accounts receivable as might be done on a posting machine. Numerous makes of typewriters, both manual and electric, are being used by these 108 businesses of Alva.

Other machines used in the 108 businesses involved in this study are check writers or protectors, used by 21 firms; calculators of various kinds, both manually- and electrically-operated, used by 20 businesses; counter-ticket writers, by 16 firms; posting machines, by seven businesses; accounting machines, by four enterprises; addressing machines, by three firms; and photocopying machines, by three businesses. In addition to these machines used by more than one business, there is a wide variety of machines which are used in one business only. These include: billing machine, off-set duplicator, folding machine, liquid duplicator, admissions register, check sorter, and bank proof machine.

In summary, the majority of the 108 businesses included in this study use adding-listing machines of some sort in maintaining their accounting records. Typewriters and cash registers are also used by a large number of the firms. Various other machines are used by one or more of the businesses. Table VII, page 82, includes data regarding the use of business machines in the City of Alva.

#### Miscellaneous Accounting Matters

In addition to the matters pertaining to accounting systems and practices presented in the preceding sections of this chapter, there are some miscellaneous accounting practices that are necessary parts of the accounting process but that are not a part of any of the other areas. These include such items as auxiliary records, cash procedures, payroll procedures, provisions for drawing cash or salary, reports other than income tax returns, procedures for handling of supplies, and supplementary papers.

#### Auxiliary Records

Auxiliary records involving listing of fixed assets combined with depreciation schedules are utilized by more of the businesses included in this study than any other kind of auxiliary records. For many of these businesses such lists of fixed assets are the only records of assets that are maintained. Fifty-nine, or 54.6 per cent, of the 108 businesses involved in this investigation utilize lists of fixed assets

TABLE VII. BUSINESS MACHINES USED BY 108 SELECTED BUSINESSES  
IN ALVA, OKLAHOMA

Machines Used	Number of Firms	Per Cent of 108 Firms
Adding-listing machines . . . . .	94	87.0
Typewriters . . . . .	69	63.9
Cash registers . . . . .	52	48.2
Check protectors . . . . .	21	19.4
Calculators . . . . .	20	18.5
Counter ticket writers . . . . .	16	14.8
Posting machines . . . . .	7	6.5
Accounting machines . . . . .	4	3.7
Addressing machines . . . . .	3	2.8
Photocopying machines . . . . .	3	2.8
Miscellaneous (1 firm using each machine) . . . . .	10	9.3
Using no machines . . . . .	3	2.8



and depreciation schedules as auxiliary records. Four enterprises have plant and property ledgers and seven firms maintain plant and property lists. These 11 businesses maintain these records supplementary to the records in their general ledger accounts. One business maintains a file of invoices for equipment purchased as its record of fixed assets. Depreciation information is recorded in detail in reserve for depreciation accounts by eight businesses, and one business has its only record of depreciation in its financial statements.

Records of insurance policies are maintained in files by 17 businesses and in insurance accounts by seven businesses. Many of the owners or managers reported that they placed their insurance policies in their safety deposit boxes and depended upon their insurance agents to keep them informed as to renewal dates.

Notes receivable registers are maintained by seven firms. Detailed information about notes payable is recorded in seven businesses; in five, such information about each note is recorded in notes payable accounts and in the other two lists of notes payable are maintained.

Other auxiliary records include analysis of accounts receivable by age, federal power commission ledger, expiration file, transmission ledger, list of chattel mortgage contracts, patronage ledger, transfer and allocation ledger, bond ledger, warrant ledger, permanent care fund ledger,

rental record, and stock notes ledger.

### Cash Procedures

Cash procedures include all procedures having to do with the handling of cash, such as frequency of deposits, methods of handling small payments, reconciliation of bank statements, cash reports, and controls for checking receipts and disbursements.

Forty-seven, or 43.5 per cent, of the 108 businesses included in this study deposit cash when the owners or managers feel that enough cash has accumulated to require a deposit. Forty businesses make daily deposits; two, make weekly deposits; four, deposit two to four times weekly; three, deposit every other day; and three, make deposits twice daily. One business deposits its cash with the County Treasurer at irregular intervals.

Small payments, those items for which the management does not wish to write separate checks, are made from the cash drawer by 60, or 55.6 per cent, of the 108 businesses involved in this investigation. Petty cash funds are maintained in 25 of the businesses. Reports from five businesses indicated that they paid everything by check, and one business had a special expense voucher for use in making small payments.

Bank accounts were reconciled with cash accounts monthly or oftener by 101, or 93.5 per cent, of the 108

businesses included in this study. Branch offices and chain stores make deposits in local banks, but they do not draw checks on their accounts and do not make the reconciliations. Home or regional offices take care of these activities. Seven businesses reported that all payments were made from their home offices.

Forty-five of the businesses using cash registers checked their cash-register readings with their cash each day. In three businesses cash is checked twice weekly; in two, cash is checked every other day; and in one, once a month. Three of the firms indicated that they used a "cash short and long" account to record differences between actual cash and cash-register readings.

Other cash procedures utilized by the businesses involve daily cash summaries, monthly reports by managers, checking of duplicate deposit tickets against sales, daily checking on disbursements, countersigning of checks, and special authorization for payments. Two businesses reported that certain of their employees were bonded.

#### Payroll Procedures

Since the businesses of Alva are relatively small, and only 22 of the 108 businesses included in this study have 10 or more employees, the preparation of payrolls is not a major accounting problem. Eight of the businesses maintain payroll journals, and five firms use payroll ledgers.

Seven businesses, staffed entirely by members of the immediate families, had no employees. Two businesses have their payrolls prepared in their home offices.

The principal deductions from wages or salaries made by the businesses of Alva are for social security and withholding for income tax. The 99 businesses having employees and preparing payrolls regularly make these two deductions. Group insurance premiums are deducted from salaries by 22 businesses; hospitalization, by six; advances or purchases, by five; and pension fund contributions, by four. Other deductions made involve credit union payments, savings bond deductions, employees' association dues, stock purchases, "Big One" deductions, meals, and uniform expense.

#### Provisions for Drawing Cash or Salary

The majority of the businesses included in this study provide for payments to the owners through the use of drawing accounts. Usually no definite amount is established, but owners draw from their businesses as they have need and keep records of the amounts drawn. In 62, or 57.4 per cent, of the 108 businesses included in this study this procedure is utilized. Managers of chain or branch stores and officers of corporations receive salaries. There are 36 businesses in Alva paying managers or corporate officers salaries. Five businesses, four partnerships and one proprietorship, provide salaries plus drawing accounts. One business provides a

salary and bonus; one partnership, operated as a sideline venture by the partners, makes an over-all settlement once a year. In three of the businesses no records are kept of the owners' withdrawals for their personal needs.

#### Reports Other Than Income Tax Returns

The reports made to governmental agencies other than income tax returns are numerous and varied, but there are only three reports that are made by significant numbers of the businesses included in this study. The quarterly report of withholding for social security and income tax is made by 89, or 82.4 per cent, of the 108 businesses included in this investigation. The remaining 10 businesses having employees for whom they withhold such taxes from salaries are branch or chain stores whose reports are made at their home offices. Monthly tax reports to the state tax commission are made by 66 businesses. Three other businesses make sales tax reports: one quarterly, one semi-annually, and one on taxable sales. Quarterly unemployment compensation insurance reports are made to the state insurance commission and annual reports to the federal government for unemployment insurance compensation by 37 businesses. Quarterly excise tax reports are submitted by 15 firms.

Other reports submitted by the 108 businesses included in this study are as follows: tax reports, such as alcohol tax, amusement tax, gasoline tax, gross production

tax, use tax; corporation reports, such as corporation franchise report, construction report, employees' stock purchase fund; public utility company reports, such as reports to Federal Power Commission showing profit and loss and interest and financial report, mining report, statement of pipe, profit and loss to Oklahoma Utility Commission, gas conservation, gas transported; banking reports, such as semi-annual report to banking department, report to comptroller of currency, semi-annual report to Federal Deposit Insurance Corporation; hospital reports, such as quarterly health inspection report and Blue Cross reports; school reports, such as report to Board of Regents, quarterly report to Bureau of Census, annual report to U. S. Office of Education, statistical report on attendance, report on teacher retirement, transportation report, and ad valorem tax by school districts; and miscellaneous reports, such as a report on the airport, a report to the insurance commission, and a report on feed tonnage for the elevator.

#### Handling of Supplies

The majority of the 108 businesses included in this report have no definite procedures for the handling of supplies. Seventy-one, or 65.7 per cent, of the 108 businesses follow no procedure other than to check on stock and order when the salesmen call on them. There are 31 firms that maintain checks on the amounts of supplies on hand and order

when their stocks run low so that they will be sure not to run out. Three enterprises take monthly inventories of supplies; two businesses issue supplies directly to employees; and one adds the cost of supplies to the cost of the product.

### Supplementary Papers

Supplementary papers, business papers from which a second paper is prepared to form the basis for the entries in journals, are not used by many of the businesses included in this study. One hundred, or 92.6 per cent, of the 108 businesses do not use any supplementary papers. Eleven types of supplementary papers utilized by eight firms were reported. Shop tickets for repair work from which charge tickets are prepared are used in four businesses. The following supplementary papers are used in one business each: make-ready card for pre-delivery service, order for warehouse receipt, wheat ledger, paid-out ticket, delivery tickets from trucks, order ticket, requisition, departmental sales slip, budget allotment request forms, student organization voucher books. A few of the businesses had more than one supplementary business paper.

### Summary

Data concerning the accounting systems and practices of the 108 businesses included in this study reveal that these businesses maintain their accounting systems primarily for the purposes of securing information for income tax

returns and managerial control. Sales tickets, purchases invoices, receipts and checks are the business papers most used as the basis for entries in the accounting records. Journals for recording cash transactions such as cash receipts journal, cash disbursements journal, and the combined cash journal are used more than other types of journals. More businesses use accounts receivable ledgers or files of sales tickets, than use general ledgers or accounts payable ledgers, the latter also being files of invoices in many cases. The majority of the 108 businesses use the calendar year as their basic fiscal period, and maintain their records on the cash basis. In those businesses which take inventory, the inventory is usually taken once a year, and the majority of the businesses value their inventories at original cost. The usual procedure for closing the books to determine net income is to total the weekly or monthly records and add these totals to secure the yearly total of income and expense. The profit and loss statement and the balance sheet are the financial statements most often prepared by these businesses. Two-thirds of the 108 businesses compare the current year's business with that of the previous year, and a few businesses compute per cents of net or gross profit. The business machines used by businesses in Alva are, for the most part, the adding-listing machine, the cash register, and the typewriter. Some auxiliary records such as lists of fixed assets and insurance policies are utilized by the



businesses of Alva. Data concerning cash procedures show that deposits are made either daily or as needed by the majority of the firms. More firms make small payments from their cash drawers than use petty cash funds. All of the businesses reconcile their bank accounts monthly, and the majority using cash registers check their cash daily with the cash-register readings. The usual deductions from payroll are for social security and for income tax withheld. Most of the businesses make use of drawing accounts to record the amounts taken from the business for personal use, but not many have a specified amount to which they are limited. There are a large number of reports other than income tax returns that have to be made to governmental agencies, but the three made by the majority of the firms are the quarterly report of social security and income taxes withheld, monthly sales tax report, and the quarterly and annual unemployment compensation insurance reports.

## CHAPTER V

### ACCOUNTING DUTIES AND PREPARATION

The data presented in this chapter were obtained by means of personal interviews with the owners and managers of 108 selected businesses in Alva, Oklahoma, and with 141 individuals engaged in performing accounting functions in these businesses. The data pertain to the accounting duties performed by the personnel engaged in accomplishing the accounting functions necessary to maintain the accounting records of the 108 businesses included in this study and to the preparation of the personnel for performing these accounting duties.

#### Accounting Duties

In this study the analysis of the duties performed by the personnel engaged in maintaining accounting records is limited to those duties that are directly related to the accounting function in business operations. As noted in the background information, the businesses of Alva are for the most part small. In some of these small businesses, owners or managers perform certain duties, whereas in many cases they assume all the duties involved in the maintenance of

their own accounting systems. In others of the businesses, personnel designated as bookkeepers or accountants are regular employees and perform the accounting duties. In a few of the businesses, independent accountants are employed to perform the major portion of the accounting, whereas in other businesses the outside accountant comes in only occasionally to perform certain restricted accounting functions. Clerical personnel, sales persons, and other employees also become involved in certain of the accounting activities in many of the businesses.

For the purposes of this study, then, the following classifications of personnel responsible for accounting functions in the City of Alva were used: owner or manager, owner-accountant, manager-accountant, employee-accountant, outside accountant, and other personnel. This classification makes clear in its terminology that in certain of the businesses owners or managers maintain their own accounting records, at least in part. Data showing the number of people in each of the foregoing categories performing the various accounting duties are presented in Table VIII, pages 94 through 97.

The information presented in Table VIII reveals that the personnel primarily responsible for maintaining the accounting records, that is, the owner-accountants, manager-accountants, and employee-accountants, are, for the most part, the ones who perform the major portion of the account-

TABLE VIII. PERSONNEL PERFORMING VARIOUS ACCOUNTING DUTIES IN 108 SELECTED BUSINESSES OF ALVA, OKLAHOMA

Accounting Duties Performed	Owner or Manager	Owner-Accountant	Manager-Accountant	Employee-Accountant	Outside Accountant	Other Personnel
Preparing Business Papers:						
Sales papers . . . . .	2	33	3	10		57
Purchase papers . . . . .	7	40	3	21		5
Checks . . . . .	6	60	3	30		
Receipts . . . . .	1	24		16		22
Other . . . . .				2		1
Journalizing:						
Sales journals . . . . .		22	2	12	3	
Purchases journals . . . . .		11	1	7	1	
Cash receipts journals . . . . .		19	2	28	2	
Cash disbursements journals . . . . .		26	2	26	3	
General journals . . . . .		6		16		
Voucher registers . . . . .				1		
Combined cash journals . . . . .		22		16		
Posting:						
General ledger . . . . .		11		20	8	
Accounts receivable ledger . . . . .	1	26	1	31	2	
Accounts payable ledger . . . . .		10		11		

TABLE VIII. Continued

Accounting Duties Performed	Owner or Manager	Owner-Accountant	Manager-Accountant	Employee-Accountant	Outside Accountant	Other Personnel
Maintaining Auxiliary Records:						
Fixed asset list or ledger . . . . .		20	2	8	35	1
Insurance policies . . . . .		1		2		
Notes receivable or payable . . . . .	1	6		6	1	
Other . . . . .		1	1	7	1	
Closing Procedures:						
By journal entries . . . . .	1	8	1	16	16	
Totaling . . . . .		34	2	9	19	
Preparing Financial Statements:						
Profit and loss . . . . .	1	22		20	60	
Balance sheet . . . . .	2	14		14	33	
Other . . . . .			1	5		
Making Ratios and Comparisons:						
Volume to year before . . . . .	3	47	1	25	4	
Per cent of net or gross profit . . . . .		17	1	7	2	
Return on investment . . . . .		2	1			
Other . . . . .		2		7		

TABLE VIII. Continued

Accounting Duties Performed	Owner or Manager	Owner-Accountant	Manager-Accountant	Employee-Accountant	Outside Accountant	Other Personnel
Preparing Supplementary Papers:						
Shop tickets . . . . .						3
Other . . . . .		1		1		2
Handling Cash:						
Depositing in bank .	5	63	3	34		
Check cash registers	6	45	4	25		3
Reconcile bank statements . . . . .	5	63	1	28	5	
Taking Inventory . . . . .	4	27	1	2		38
Checking and Ordering Supplies . . . . .	1	14	3	17		1
Preparing Sales Summaries . . . . .	1	37	3	20	4	
Preparing Purchases Summaries . . . . .	2	28		12		
Preparing Cost Records	5	12	1	13	3	
Preparing Payrolls . . . . .	1	52	4	33	10	

TABLE VIII. Continued

Accounting Duties Performed	Owner or Manager	Owner-Accountant	Manager-Accountant	Employee-Accountant	Outside Accountant	Other Personnel
Using Business Machines:						
Adding-listing machine . . . . .	1	50	5	35		1
Typewriter . . . . .	1	39	1	25		1
Cash register . . . . .	2	37	2	11		6
Calculator . . . . .	1	5	1	12		
Check protector . . . . .	1	8	1	11		
Posting and book-keeping . . . . .		3		11		
Other . . . . .				5		
Preparing Income Tax Returns . . . . .	1	13	1	4	80	
Preparing Other Reports:						
Sales tax . . . . .		39		17	22	
Social Security and income tax withheld . . . . .	1	36	2	24	34	
Unemployment compensation insurance tax . . . . .		14	1	13	24	
Miscellaneous . . . . .		13	1	16	9	

ing duties. Employees other than those engaged in the performance of specific accounting duties are concerned with the preparation of business papers, particularly sales papers, receipts, and supplementary papers, and with the taking of inventory. In some areas of activity, such as the preparation of business papers, all employees are at one time or another involved. Outside accountants are used extensively in Alva in the preparation of financial statements, the preparation of income tax returns (almost 80%), and in the preparation of reports to governmental agencies. Other activities which the outside accountants perform in maintaining the accounting records include maintenance of fixed asset records accompanied by depreciation schedules, closing the books at the end of fiscal periods, and preparation of payrolls. Many of the owners or managers who do not maintain their own accounting records do handle cash, make deposits, check cash registers, and reconcile their bank accounts, instead of allowing their accountants to do so.

#### Preparation for Performance of Accounting Duties

In the subsections which follow, information will be presented regarding the extent and nature of the formal preparation for performing accounting duties, the adequacy of this preparation, recommendations relative to preparation for accounting positions, and length of service in present positions.



### Extent and Nature of Preparation

The educational backgrounds of the 141 people engaged in performing accounting duties in the 108 businesses of Alva, Oklahoma, included in this study are decidedly varied. Some of the people did not graduate from high school; six of them completed only the eighth grade. Formal education of the persons involved here ranges from the very low levels to doctor's degrees in two cases.

Of the 141 people included in this investigation, 15 did not graduate from high school. Forty-five of the remaining 126 people are graduates of Alva High School, and the other 81 persons are graduates of other high schools. Those persons having preparation beyond high school include 33 who attended college for one year or less; 18 who attended college two years; eight who attended college three years; and 39 who received bachelor's degrees. Of these 39, 24 graduated from Northwestern State College, and 15 graduates from other colleges. In addition, six people attended private business schools for one year or less, and seven attended for two years. Two people reported that they held master's degrees, and two people, doctor's degrees--a doctor of education and a doctor of dental science.

Preparation in accounting and other business subjects is also varied. Forty-one of the 141 people engaged in performing accounting duties reported that they had had no formal business training. There were 26 others who reported

having had no formal preparation in bookkeeping or accounting. Fifty people, or 35.5 per cent, reported that they had had bookkeeping in high school, whereas 33, or 23.4 per cent, reported that they had studied accounting in college, completing three or more semester hours of work. Twenty-two of these people had had both high school bookkeeping and college accounting. Eleven people have had some preparation in bookkeeping and accounting in private business schools or by means of correspondence courses.

Accounting at the college level ranged from one semester of elementary principles of accounting to a 4-year major in accounting culminating in a degree in business administration. Five of the 141 people performing accounting duties had had only one semester, or three hours of work, in elementary principles of accounting at the college level. Thirty people had taken six hours, or two semesters, of elementary principles of accounting. Intermediate accounting had been studied by nine people; income tax accounting, by 10, and cost accounting, by six. The following accounting courses were included in the backgrounds of from one to three people: municipal accounting, auditing, machine accounting, advanced accounting, petroleum accounting, and consolidated statements.

A large number of other business subjects were studied by the 141 people engaged in accomplishing the accounting functions of the 108 businesses included in this

study. At the high school level, 55 people, or 39.0 per cent, had one or two years of typewriting; 18 had studied shorthand. Other subjects studied in high school were business arithmetic, business English, and office practice. Courses studied in private business schools other than bookkeeping and accounting were banking, secretarial training, shorthand, typewriting, business English, business law, and business mathematics. Correspondence courses included salesmanship, business psychology, and management.

In addition to the accounting courses listed, other business subjects studied by those having attended college were: typewriting, shorthand, business law, business mathematics, business communications, office practice, business management, filing, economics, business machines, and finance.

In answer to the question "Is formal preparation in accounting necessary to perform the accounting duties of your position?" the 141 people interviewed replied as follows: 46, no; 49, no--but it would have been helpful; and 46, yes. Twenty-two owner-accountants and 24 employee-accountants said that formal preparation in accounting was not necessary in order to perform the accounting functions required in their positions. In this group, 19 of the owner-accountants and 16 of the employee-accountants had had no preparation in high-school bookkeeping or college accounting. Twenty-eight of the owner-accountants, and 21 of the employee-accountants believed that while formal preparation in accounting was not

necessary for their positions, it was helpful in understanding better the accounting duties they did perform. Twelve of the owner-accountants and 13 of the employee-accountants in this group had had some preparation in bookkeeping or accounting, but the others had not. Forty-six persons, 23 in each group--owner-accountants and employee-accountants--said that formal preparation in accounting was necessary for their positions. Of this group, eight owners and one employee had had no accounting. Since some of the accounting work in the businesses of Alva is routine recordkeeping and the routines are quickly learned on the job, previous knowledge of accounting is really not essential for these positions. It is interesting to note that the data given above appear to indicate that with knowledge of accounting comes an appreciation of its usefulness on the job.

#### Adequacy of Preparation

The interviewees were asked to tell in what ways their formal high school and/or college educations had been most helpful to them and in what ways it had been inadequate. Some of the people listed two or three subjects in their educational backgrounds which had been most helpful to them in their work. However, seven persons said that their formal preparation had been of no particular help to them. Eighteen, most of whom had had very little formal education, said that their experience in previous positions had helped them more than anything else.

Subjects that were considered most helpful to the people engaged in performing accounting duties are shown in Table IX, page 104. As might have been expected, the data in Table IX indicate that 58, or 50 per cent, of the 116 people stated that preparation in the subject-matter area of bookkeeping and accounting had been most helpful to them. Their statements emphasized high school bookkeeping to about the same degree as college accounting. Mathematics was considered most helpful by 45, or 38.8 per cent, of the 116 people. Their statements indicated that not only was preparation in college mathematics important, but also a thorough understanding of the fundamentals of arithmetic was essential. It is interesting to note that typewriting ranked high in value for accounting personnel, being considered most helpful by 27, or 23.3 per cent, of the 116 people. Other business subjects considered helpful were shorthand, business law, business communications, and business machines. Thirteen other subjects were indicated as valuable in the responses of from one to two people. Included in the miscellaneous category were special subjects taken as preparation for particular lines of business such as music, pharmacy, optometry, photography. Owners of businesses who maintained their own accounting records naturally felt that their specialized training was most valuable since it fitted them for their principal work.

TABLE IX. SUBJECTS CONSIDERED MOST HELPFUL BY 116\* PEOPLE PERFORMING ACCOUNTING DUTIES

Subjects	Number of People	Per Cent of 116 People
Mathematics . . . . .	45	38.8
College accounting . . . . .	30	25.7
High school bookkeeping . . . . .	28	24.1
Typewriting . . . . .	27	23.3
Shorthand . . . . .	5	4.3
Business law . . . . .	4	3.4
Business communications . . . . .	3	2.6
Business machines . . . . .	3	2.6
Miscellaneous subjects (one or two each)	14	12.1

\*The total of 141 people performing accounting duties were involved in this study. Twenty-five of them did not indicate any one subject that was more helpful than any other.

In connection with securing the data concerning subjects considered most helpful, information was also secured relative to areas of study in which interviewees would have liked to have more preparation. Forty-eight persons stated that they would have liked to have some or more training in college accounting or high-school bookkeeping. Sixteen indicated that they would have liked to study shorthand, and 15 said they wished they had had typewriting. Fewer than 10 indicated that they would have liked more preparation in each of the following areas: mathematics, English, speech, business communications, and business law.

#### Recommendations for Preparation for Accounting Positions

The interviewees were asked to recommend what subjects high school and college students should study in preparation for accounting positions. A number of people suggested more than one subject or area of study that would be beneficial in preparing for accounting positions and several suggested instead of subjects certain desirable habits that should be developed. Fourteen of the 141 people interviewed made no recommendations.

More than two-thirds of the people interviewed expressed the belief that a thorough understanding of the fundamentals of bookkeeping and accounting constitute essential preparation for accounting positions. In addition to knowledge of accounting, the interviewees suggested a number

of other subjects in which preparation is desirable. Four people recommended that students should take all business subjects possible, and three recommended that they should secure all the education possible. One person recommended that cooperative work experience would be desirable. A summary of the ideas relative to subjects or subject-matter areas essential to preparation for accounting duties is presented in Table X, page 107.

Required desirable work habits, traits, and skills emphasized by the interviewees were accuracy, sense of responsibility for doing work, neatness, good judgment, attention to detail, concentration, ability to check work, ability to fill in forms, ability to apply learning to a job, ability to make tax returns or reports of various kinds, such as sales tax, social security and withholding tax, as well as income tax returns.

#### Length of Service in Present Positions

The majority of the people engaged in performing accounting duties in the 108 businesses of Alva, Oklahoma, included in this study began their employment with the firms by which they are still employed at the time the data were obtained. Since 73 of the 141 people are owners or managers who maintain their own records, they have been performing the accounting duties since they opened their businesses or since they were employed as managers. In a few cases,



TABLE X. SUBJECTS RECOMMENDED AS ESSENTIAL OR DESIRABLE AS PREPARATION FOR ACCOUNTING DUTIES

Subjects	Number of Responses	Per Cent of 127*
Accounting and/or bookkeeping . . .	99	78.0
Mathematics and/or arithmetic . . .	59	46.5
Typewriting . . . . .	22	17.3
Penmanship . . . . .	18	14.2
English and speech . . . . .	14	11.0
Shorthand . . . . .	11	8.7
Spelling . . . . .	9	7.1
Business machines . . . . .	9	7.1
Business communications . . . . .	7	5.5
Business mathematics . . . . .	5	3.9
Business law . . . . .	5	3.9
Small business management . . . . .	2	1.6
Clerical training . . . . .	1	0.8
Geography . . . . .	1	0.8
Psychology . . . . .	1	0.8

\*The total of 141 people performing accounting duties were involved in this study. Fourteen of them did not make any recommendations.

managers had been promoted from other positions. Thirty-six of the 68 employees, not including managers or owners, were still in the positions for which they had initially been employed, whereas 32 persons were working in different jobs which in some cases meant that they had been promoted.

The 141 people engaged in performing accounting duties have held their present positions for periods ranging from three months to 33 years. Eight people did not state how long they had been employed or engaged in their present positions. Ten people had been employed less than one year; 49 people had been working at their present positions for from one to five years; 39 people, from six to ten years; 16 people, from 11 to 15 years; nine people, from 16 to 20 years; eight people, from 21 to 25 years; and two people had been employed more than 25 years in the same positions.

#### Summary

The data for this chapter were obtained from the owners or managers of 108 selected businesses in Alva, Oklahoma, and from the personnel of these businesses engaged in performing the accounting functions necessary to maintain the accounting records.

One hundred forty-one people were engaged in performing accounting duties in the 108 selected businesses, either as owners or managers who maintained their own accounting systems or as personnel employed for this purpose. For the

most part, personnel responsible for maintaining the accounting records perform the majority of the accounting duties for the businesses in Alva. Owners or managers who do not maintain their own accounting systems frequently perform the accounting activities involving money. Independent accountants from outside the businesses are frequently employed to prepare income tax returns, other governmental reports, and payrolls. The accountants for the businesses are responsible for most of the other activities. The majority of the people engaged in accounting activities are high school graduates but more than two-thirds have had some college training. Approximately one-third of the people engaged in accounting have had no business training. Less than half of the accounting personnel have had preparation in accounting or bookkeeping. Of other business subjects studied, typewriting had been studied by more of the accounting personnel than any other subject. Approximately one-third of the people believed that accounting or bookkeeping preparation was not necessary for the duties required in their positions; one-third said that such preparation was not necessary but was helpful; and one-third said that such accounting preparation was necessary in their positions. Subjects considered most helpful in their present positions were accounting or bookkeeping, and mathematics or arithmetic. Subjects the accountants believed were most needed (in which they believed they needed more preparation) were accounting and typewriting. Subjects

recommended as essential or desirable in preparation for accounting positions were accounting and mathematics. The majority of the people engaged in accounting are still employed in the positions in which they started with the business for which they work. The length of time these people have been working in their present positions ranges from less than one year to 33 years. More have been employed from one to five years in their present positions than for longer periods of time.

## CHAPTER VI

### ANALYSIS OF TEXTBOOKS WITH IMPLICATIONS FOR IMPROVEMENT OF INSTRUCTION IN ACCOUNTING

From the outset, the problem in this investigation has involved three significant phases. One phase has been the analysis of accounting systems of selected business enterprises to determine current procedures in accounting. Another phase has involved the determination of the specific duties performed by persons responsible for accomplishing the procedures followed in business firms. These two phases of the problem were dealt with in Chapters IV and V. The information and data presented in those chapters constitute the basis for completion of the third significant phase of the problem, which is to ascertain the implications of the data obtained for instruction in accounting at the secondary school and college levels.

The procedure developed in this study for ascertaining the implications of the data for instruction involves textbook analysis. The purpose of it is to compare as extensively as possible actual accounting practices in business with the elements of accounting involved in textbook

presentations. The data obtained in personal interviews with the owners or managers of 108 selected businesses in Alva, Oklahoma, were used as the basis for developing a checklist of elements of accounting involved in the accounting systems and practices utilized. With this checklist, the instructional content of certain textbooks was analyzed to determine the extent to which instructional materials are in accord with current practices and procedures. The research study by Hill<sup>1</sup> indicates that on the presentation of all major elements of accounting and most minor elements textbooks tend to be very similar. For that reason, the analysis in this study is restricted to the two books used in instruction in accounting in the Alva area. Therefore, the textbooks analyzed were the high-school textbook currently in use in the bookkeeping classes at Alva High School, and the accounting textbook used in the elementary accounting classes at Northwestern State College. Because of the nature of the analysis, they are not named here.

From the data concerning accounting systems and practices, the elements of accounting practice followed by the 108 selected businesses in Alva, Oklahoma, in maintaining their accounting systems were listed. In addition to these

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<sup>1</sup>Martha Frances Hill, "A Comparative Study of Bookkeeping Principles and Activities Used on the Job as Presented in Textbooks and by Teachers" (unpublished Ed. D. dissertation, University of Kentucky, 1954).

items, certain items of background information concerning the businesses and their accounting systems as presented in Chapter III were included. Each item was checked as to whether it should be given extensive coverage, limited coverage, or little or no coverage. It was assumed for the purposes of this analysis that if an accounting practice was followed by as many as one-third of the businesses, it should be given extensive coverage. If the accounting practice was followed by fewer than one-third of the businesses but more than one-tenth of the businesses, it should be given limited coverage. And if fewer than one-tenth of the businesses followed the accounting practice, little or no coverage was needed. It should be noted that for certain elements of accounting practice, a very brief textbook presentation with limited illustrations might be sufficient.

#### Analysis of Textbooks

Following preparation of the checklist of accounting practices and procedures, the contents of the two textbooks were analyzed and compared with the checklist. The method of analysis used in this study was to count the number of pages devoted to each accounting practice and to note the number of times it was presented in different sections of the textbook. Problems and exercises were not considered. The analysis of the textbooks is presented in Table XI.

TABLE XI. ANALYSIS OF ACCOUNTING TEXTBOOKS ACCORDING TO CHECKLIST PREPARED FROM DATA  
RELATIVE TO ACCOUNTING SYSTEMS AND PRACTICES OF 108 SELECTED BUSINESSES IN ALVA,  
OKLAHOMA

Elements of Accounting	Textbook Coverage Needed			High-School Textbook		College Textbook	
	Extensive	Limited	Little or None	Number of Pages	Times Presented	Number of Pages	Times Presented
<u>Business ownership:</u>							
Single proprietorships . . . . .	x			5	1	4	1
Partnerships . . . . .		x		9	1	17	1
Corporations . . . . .		x		10	1	40	2
<u>Accounting basis:</u>							
Accrual basis . . . . .		x		1½	1	3	1
Cash basis . . . . .	x			1½	1	3	1
<u>Accounting functions . . . .</u>	x			13	2	21	2
<u>Business papers utilized:</u>							
Sales papers . . . . .	x			6	4	1	1
Purchases papers . . . . .	x			2½	3	6	2
Cash receipts papers . . . . .	x			1	1	0	0
Cash payments papers . . . . .	x			4	5	1	1
Miscellaneous papers . . . . .			x	3	1	2	1
<u>Journals used:</u>							
General journals . . . . .		x		32½	6	15½	5
Cash receipts journals . . . . .	x			11	3	5	2
Cash disbursements journals . . . . .	x			7	3	7	3
Combined cash journals . . . . .		x		12	4	0	0



TABLE XI. Continued

Elements of Accounting	Textbook Coverage Needed			High-School Textbook		College Textbook	
	Extensive	Limited	Little or None	Number of Pages	Times Presented	Number of Pages	Times Presented
Sales journals . . . . .	x			3	1	7	2
Purchases journals . . . .		x		8	1	8	2
Voucher registers . . . .			x	0	0	14	1
Miscellaneous or auxiliary . . . . .			x	0	0	0	0
<u>Ledgers used:</u>							
General ledgers . . . . .	x			29	8	11½	4
Accounts receivable ledgers . . . . .	x			8	6	5	2
Accounts payable ledgers	x			7½	6	3	2
Miscellaneous . . . . .			x	0	0	0	0
<u>Closing procedures:</u>							
Trial balances . . . . .		x		11½	5	2	3
Working papers . . . . .			x	13	3	26	7
Adjusting entries . . . .		x		29	6	24	9
Inventory count . . . . .	x			0	0	9	2
Inventory valuation . . . .	x			0	0	8½	1
Closing entries . . . . .		x		15	2	13	5
Totaling journals or ledgers . . . . .	x			0	0	0	0
<u>Financial statements:</u>							
Profit and loss . . . . .	x			6½	4	19	8
Balance sheet . . . . .	x			11½	4	18½	8
Miscellaneous . . . . .			x	½	1	13	2

TABLE XI. Continued

Elements of Accounting	Textbook Coverage Needed			High-School Textbook		College Textbook	
	Extensive	Limited	Little or None	Number of Pages	Times Presented	Number of Pages	Times Presented
<u>Financial analyses and comparisons:</u>							
Volume comparisons . . .	x			0	0	11	2
Sales comparisons . . .	x			0	0	0	0
Purchases comparisons .	x			0	0	0	0
Per cent of net profit .		x		0	0	7	1
Per cent of gross profit			x	0	0	4	1
Return on investment . .			x	0	0	1	1
Other ratios . . . . .			x	0	0	9	2
Cost computations . . .		x		0	0	4	1
<u>Business machines used:</u>							
Adding-listing machines	x			0	0	0	0
Typewriters . . . . .	x			0	0	0	0
Cash registers . . . . .	x			4	1	0	0
Check protectors . . . .		x		0	0	0	0
Calculators . . . . .		x		0	0	0	0
Counter-ticket writers .		x		1	1	0	0
Posting or accounting machines . . . . .			x	0	0	0	0
Miscellaneous . . . . .			x	0	0	0	0

TABLE XI. Continued

Elements of Accounting	Textbook Coverage Needed			High-School Textbook		College Textbook	
	Extensive	Limited	Little or None	Number of Pages	Times Presented	Number of Pages	Times Presented
<u>Miscellaneous accounting matters:</u>							
Auxiliary records:							
Fixed asset list and depreciation schedule . . . . .	x			0	0	0	0
Plant and property ledgers . . . . .			x	½	1	20	2
Insurance registers . . . . .			x	0	0	0	0
Notes registers . . . . .			x	2	1	20	1
Cash procedures:							
Depositing cash . . . . .	x			3	1	3	1
Petty cash . . . . .		x		5	2	4	1
Reconciling bank account . . . . .	x			2½	1	5	1
Checking cash register or cash . . . . .	x			2½	2	3	1
Special bank accounts . . . . .			x	0	0	2	1
Payroll procedures:							
Payroll records . . . . .		x		8	2	4	1
Social Security and income tax withholding . . . . .	x			5	2	6	2
Unemployment compensation insurance . . . . .		x		3	1	4	2
Other deductions . . . . .		x		0	0	1	1

TABLE XI. Continued

Elements of Accounting	Textbook Coverage Needed			High-School Textbook		College Textbook	
	Extensive	Limited	Little or None	Number of Pages	Times Presented	Number of Pages	Times Presented
Proprietor's drawing account . . . . .	x			1	1	2	1
Preparing income tax returns . . . . .		x		1	1	0	0
Preparing other reports:							
Monthly sales tax . .	x			0	0	0	0
Quarterly social security and income tax withholding . .	x			0	0	0	0
Quarterly unemployment compensation insurance . . . . .		x		0	0	0	0
Quarterly excise tax .		x		0	0	0	0
Miscellaneous . . . . .			x	0	0	0	0
Handling of supplies . .		x		0	0	0	0
Supplementary papers . .			x	0	0	0	0
<u>Applications provided:</u>							
Projects . . . . .	x			65	8	0	0
Practice sets . . . . .	x			30	2	13	2

From the information presented in Table XI, it is readily apparent that in many of the areas the textbooks include adequate coverage of the accounting practices. In other areas the coverage is extremely limited or the practice is not included in the textbooks at all. Some of the items are included in one textbook and not in the other.

Both of the textbooks, as do practically all books in the accounting field, present the subject with the double-entry approach. No mention of the single-entry kind of recording is made in either textbook. Since single-entry accounting is by definition merely incomplete double-entry accounting, textbook authors undoubtedly believe that if students are taught double-entry accounting, they will be able to make proper single-entry applications.

The high-school textbook presents the topic of ownership from the standpoint of the single proprietorship and uses single proprietorship illustrations throughout, except for a chapter on partnerships and one on corporations. The college accounting textbook presents ownership from the corporate standpoint and uses corporation illustrations throughout except for one chapter on single proprietorships and partnerships. Each of the textbooks has a partnership practice set. Another recommended practice set for the high-school textbook concerns a single proprietorship, and the second practice set for the college accounting textbook involves a corporation.

Each of the textbooks contains a brief explanation of the difference between the accrual basis of accounting and the cash basis of accounting, but no further consideration is given to elements in the cash basis kind of accounting.

The major portion of the presentation in each textbook is devoted to the accounting operations of independently-operated businesses. The college accounting textbook does devote some attention to accounting procedures for branch stores or offices. Neither textbook presents material specifically applicable to accounting in governmental units or agencies.

Both textbooks present some explanation of the purposes and uses of accounting records in the management of a business. The college accounting textbook covers this area more thoroughly than does the high-school textbook. In addition to the introductory explanations relative to the uses of accounting in business, it has one chapter on accounting aids to management and a chapter on comparative statements and analytical ratios.

Beginning with business papers and continuing through the closing procedures--the accounting cycle--the textbooks offer relatively complete coverage. The textbooks do not devote much space to the presentation of business papers; the high-school textbook presents more illustrations of business papers than does the college accounting textbook. This

is an area for which an illustration and brief explanation, supplemented with teacher-selected illustrations of business papers actually used, is probably sufficient. The high-school textbook also provides practice in the use of business papers through practice sets for which business papers are available. At the discretion of the teacher, the practice sets may be used with or without the business papers.

Although the general journals are not used as extensively as other journals in the businesses included in this study, the two-column general journal is given much attention in the textbooks. The general journal is used in all introductory explanations of principles of double-entry accounting, and for this reason appears frequently in the textbooks. The combined cash journal which is used by 26 businesses in Alva is not presented in the college accounting textbook, but it is considered in the high-school textbook. Use of the combined cash journal is emphasized throughout the latter half of the high-school textbook. Other journals and the ledgers appear to be adequately treated in both textbooks.

Much attention is given to the use of worksheets in both textbooks, but according to the data obtained, they are not used to any great extent in the businesses of Alva. The high-school textbook does not deal with determination of inventories, either in terms of taking inventory or methods of valuing inventory. The closing procedure used by one-half of the businesses, that of totaling weekly or monthly

journals and adding these totals to secure income and expense figures for the year, is not presented in either textbook. The procedure involving closing entries, as presented in the textbooks, is used by only 25.0 per cent of the 108 businesses included in this study.

The high-school textbook does not present any comparative statements or other means of comparison that owners or managers might use to determine the success of their enterprises. The college accounting textbook with its chapter on comparative statements and analytical ratios presents this area more fully than the data obtained would indicate necessary. However, a few of the businesses do compute a number of the ratios presented in the chapter in the college book.

The only business machines mentioned in either textbook are the cash register and the counter-ticket writer which are referred to in the high-school textbook. The use of machines in connection with accounting is not covered in the college accounting textbook. Perhaps this is an area of study that should be included in related business courses.

The majority of the topics listed under miscellaneous accounting matters are included in both of the textbooks. Both books include some material on acquisition and depreciation of fixed assets, although the fixed asset list with depreciation schedule, used for income tax returns, is not presented. Both textbooks present information regarding notes receivable and payable and the respective registers.



Cash procedures and payroll procedures are covered in both of the textbooks, also. But preparation of income tax returns and other tax reports is not included. The high-school textbook has one illustration of an income tax return for a farmer, and that is the extent of the coverage in the textbooks.

Each of the textbooks has a number of problems and exercises included to accompany each chapter presentation. In addition, the high-school textbook provides at intervals long problems which integrate the principles presented in preceding chapters so that the student will be able to see better the whole accounting process. Also at the end of the textbook are four special applications of principles as involved in accounting for an organization, for a family, for a professional person, and for a farmer. The college accounting textbook does not present such material as that just mentioned, but it does cover a number of topics not included in the checklist. These are principles of accounting that would be basic in the elementary preparation of the student who is planning to continue study in the field of accounting. Such topics as investments, consignments, installment sales, and liabilities (bonds) are covered. In addition, certain broad theoretical aspects of accounting such as the going-concern assumption, the stable-dollar assumption, the principles of conservatism, and the principles of consistency, are included. These appeared to be

matters of little concern to the people involved in accounting in Alva.

In summary, by totaling the information given in Table XI, it appears that approximately 300 pages are devoted to the checklist topics in the high-school textbook, and, similarly, 417 pages are utilized in the college accounting textbook. In each textbook, the number of pages given above represent only a little more than one-half of the total pages in the book. However, since much of the material in the textbook includes end-of-chapter materials, problems to be worked, projects and practice sets, this is perhaps not too significant. The analysis of data here appears to indicate rather conclusively that the relationship between actual practice and accounting in textbook coverage of essential elements is not as close as it might well be. Perhaps even more exact indications of the relationship are brought out in the next section.

#### Implications for Improvement of Instruction in Accounting

The data obtained in the interviews and by means of analysis of the textbooks indicate that there are major differences between current accounting practices as followed by the 108 businesses in Alva that were investigated and the presentation of instructional materials in the textbooks analyzed. It should be noted, however, that the differences are more extensive in procedures than in principles. It

does not necessarily follow that accounting courses should be reorganized to include only the current accounting practices and procedures followed in business. In textbooks, attempts are made to present the accounting principles that will constitute basic knowledge for students who will in the future have positions as accountants, manage their own businesses and perhaps maintain their own accounting records, or continue their study of accounting. These principles must be taught. However, it is generally agreed by educators that business teachers should give recognition to current accounting practices in the planning and presentation of accounting courses. They should emphasize the fact that accounting systems vary with different businesses, that the general principles as presented in the accounting courses are basic to all accounting systems, but that it is impossible to present in the textbook or course every variation that they might possibly meet on the job. Consistent with sound educational theory, accounting teachers should supplement textbook material with additional instructional material and explanations of current accounting practices so that students will be aware of some of the different types of accounting records and accounting practices that are used in businesses in the community. Such explanations will prepare students for understanding different types of accounting records when they secure positions as bookkeepers and will enable them to adapt their knowledge and skills

to the situation.

In view of the fact that in 73, or 67.6 per cent, of the 108 businesses in Alva included in this study, owners or managers maintain their own accounting records, it appears that teachers should include some instructional material in elementary accounting courses relative to suitable records for small businesses. Such records need to be simple to maintain and yet complete enough to provide adequate information for the management of the business. In many instances in the businesses in Alva, no general ledgers are used. Only 12 of the 73 businesses in which the owner or manager maintains his own accounting records are using general ledgers. Accounting teachers, therefore, should acquaint their students with this accounting practice, and show how the procedures they have been taught may be adapted to such a situation.

The accounting teacher should be aware that a combined cash journal may readily be designed so as to provide columns for the necessary debits and credits for a particular business and thus provide adequate information without the use of a general ledger. Without a general ledger, there is no need for adjusting and closing entries. The combined cash journal may be totaled each month, and the monthly totals added at the end of the year to provide information for statements and the income tax return. Material of this nature might well be developed by an accounting teacher in a

unit of instruction on accounting for small businesses.

The textbooks present the subject matter of accounting from the double-entry approach. Since approximately two-fifths of the businesses included in this study maintain their accounting records by single-entry methods, perhaps business teachers should include some instruction on single-entry recordkeeping and explain and illustrate the differences between single- and double-entry accounting.

Business papers which furnish the basis for entries in the accounting records should, perhaps, be given more emphasis than is provided in the textbooks. This emphasis might be provided by collecting samples of actual business papers in use in the community, or the accounting teacher might duplicate sample business papers for students to use in making entries in various accounting records.

Since cash journals are used more than other types of journals in the businesses of Alva, this study would indicate that cash receipts, cash disbursements and the combined cash journals should be given more emphasis in instructional material than other special journals. Since the college accounting textbook does not present the combined cash journal, supplementary instructional material regarding this journal should be included in the elementary college accounting course. Although the general journal is not used by the businesses of Alva to any great extent, it is utilized in the textbook for presenting basic principles of accounting,

and appropriately should continue to be used for that purpose. Students should be made aware of practices such as the use of files of sales tickets in lieu of accounts receivable ledgers and files of invoices in lieu of accounts payable ledgers.

Eighty-five of the 108 businesses included in this study use the cash basis of accounting. In view of this fact, perhaps too much time in elementary courses in accounting is spent on adjusting entries for accrued items and for prepaid expenses. This statement is not intended to mean that such material should be omitted from the elementary accounting courses, but rather that less emphasis be given to it and less time devoted to its presentation.

Supplementary material relative to methods of taking inventories and of valuing inventories should probably be included in the high-school accounting course since the textbook does not include such information. Instruction relative to inventory methods should include information concerning perpetual inventory records.

Since one-half of the businesses close their books by the method of totaling journals, monthly or weekly, and adding these totals to secure income and expense figures for the year, this method of closing should be included in elementary accounting courses. Only one-fourth of the businesses follow the procedure of making closing entries in the general journal, posting those entries to the general ledger, and then

ruling the ledger accounts--the method presented in the textbooks.

The use of machines in maintaining accounting systems is given little or no coverage in the textbooks. It would seem advisable to have adding-listing machines available for students to use in preparing their class assignments; and, too, since the majority of businesses have financial statements typewritten, students should be required to prepare some of the financial statements accompanying the problems on typewriters so they would have this experience.

The procedures for accounting for payrolls, with the deductions for social security and income tax withholding, are covered adequately in the textbooks, but the author has discovered that the procedure for recording the employers' contributions is extremely difficult for students to understand. Perhaps if they were also shown the kinds of reports the employers must make in connection with these deductions and had some experience in filling in these forms, they might gain more complete understanding of the procedure. Along with these reports might be included other tax reports that businesses must send in, such as reports of sales taxes collected and unemployment compensation insurance contributions. From the business standpoint, since approximately four-fifths of all businesses have their income tax returns prepared by independent accountants, skill in preparation of income tax returns may not seem to be necessary. But since all persons

engaged in business, either as owners or employees, must file income tax returns, perhaps it would be well to include some instructional material on filling in income tax returns and computing the tax, both for individuals and for businesses. The Treasury Department distributes without charge an excellent kit of materials for offering instruction.

Specifically, and in brief, the implications for improvement of instruction in accounting apparent in this study are:

1. Accounting teachers should give recognition to current accounting practices in presenting instructional materials in accounting courses, emphasizing the variety of accounting systems and practices that students upon entering employment will find used in business.

2. Since owners of small businesses in many cases maintain their own accounting records, some instructional material should be included relative to suitable records for small businesses that are simple to maintain yet provide adequate information for management purposes.

3. While accounting undoubtedly should be taught with the double-entry approach, single-entry methods should also be included in the accounting courses.

4. Textbook material regarding business papers should be supplemented with samples of business papers in use in the community, or by duplicated samples in quantity for all students to use.



5. The value of the combined cash journal as the principal record for small businesses should be emphasized. Practice in its use should be included in the instructional program.

6. Since the majority of businesses included in this study use the cash basis of accounting, it is suggested that less time and emphasis be placed on adjusting entries for accrued and prepaid items.

7. Methods of closing accounting records other than the standard closing procedure with journal entries should be included in elementary accounting courses since many businesses follow other methods.

8. Typewritten financial statements should occasionally be required of students so that they will be familiar with the problems of preparing financial statements in that form.

9. Students should be afforded opportunities for practice in preparing reports involving sales taxes, social security and withholding taxes, unemployment compensation insurance, and income tax returns.

### Summary

The third significant phase of this study, that of ascertaining the implications of the data obtained for instruction in accounting at the secondary school and college levels, involved textbook analysis for the purpose of comparing actual accounting practices in business with elements of

accounting involved in textbook presentations.

From the data obtained in personal interviews with the owners or managers of 108 selected businesses in Alva, Oklahoma, a checklist of elements of accounting utilized by these businesses was developed. Using this checklist the instructional content of the high-school textbook used in the bookkeeping classes at Alva High School, and the accounting textbook used in the elementary accounting courses at Northwestern State College were analyzed. The method of analysis was to count the number of pages devoted to each accounting practice and to note the number of times it was presented in different sections of the textbook. From the analysis, it is apparent that in many areas the textbooks include adequate coverage of the accounting practices. Areas in which coverage is limited or non-existent are single-entry bookkeeping, cash basis of accounting, business papers, comparison and analysis of records, combined cash journal, use of business machines, inventory procedures, preparation of income tax returns and other tax reports. The textbooks include some elements of accounting which are not followed in the businesses of Alva. From the analysis of the textbooks according to the checklist of elements of accounting utilized by the businesses of Alva, implications for improvement of instruction in accounting were determined. The implications pertain chiefly to recognition of variations in accounting systems and practices, information concerning

suitable records for small businesses, single-entry record-keeping, business papers, combined cash journal, cash basis of accounting, methods of closing accounting records, use of machines in accounting, preparation of income tax returns and other tax reports.

## CHAPTER VII

### SUMMARY AND CONCLUSIONS

The purpose of this study was to analyze current accounting systems and practices in an effort to ascertain implications for instruction in accounting at the secondary and college levels.

#### Re-Statement of Problem

The problem of this study was to analyze the accounting systems of selected business enterprises in Alva, Oklahoma, to determine current procedures, to determine specific duties of personnel responsible for accomplishing the procedures, and to ascertain the implications of the data obtained for instruction in accounting at the secondary and college levels in schools located in the Alva area.

The data for this study were obtained through personal interviews with the owners or managers of 108 selected business enterprises in Alva, Oklahoma, and with the personnel responsible for accomplishing the accounting functions in these specific businesses. The data thus obtained were used as the basis for analysis of the instructional content of accounting textbooks in use in bookkeeping classes at

Alva High School and in elementary accounting classes at Northwestern State College. A comprehensive interview guide (see Appendix A) was used to assure a high degree of uniformity in the data obtained.

The procedure followed in obtaining the data for this study was first to determine what information was desired. By analysis of similar studies and other related literature, particularly books on accounting systems, this information was determined and the interview guide was developed. The guide consisted of three parts: (1) information about the specific business enterprises, (2) information about each of the accounting systems, and (3) data concerning the accounting personnel relative to the nature, extent, and adequacy of their job preparation.

Before beginning the interviews it was necessary to determine what would constitute an adequate sampling. The businesses of Alva were classified according to the classification given by the Statistical Abstract of the United States,<sup>1</sup> since no classification of the businesses in Alva was available. To this classification three other groups were added: professional people; city, county, and federal offices; schools, hospitals, and churches. These groups were added to insure that the study was based on an adequate

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<sup>1</sup>U. S. Bureau of the Census, Statistical Abstract of the United States: 1957 (Seventy-eighth edition; Washington, D. C., 1957), p. 482.

sampling of the business activities of Alva. From the amended list, approximately one-third of the firms were selected. As nearly as possible one-third of the firms in each classification were chosen. However, because of the nature of accounting activities in some of the groups, fewer than one-third of the firms in certain groups were selected.

A trial study of ten firms, one from each of the ten categories, was conducted in order to determine the adequacy and appropriateness of the interview guide. As a result, of the trial study, minor changes were made in the interview guide. Following this, the owners or managers and the accounting personnel responsible for accomplishing the accounting functions of the remaining 98 businesses were interviewed. Interviews were conducted in an informal manner and ranged from 15 minutes to two hours, averaging approximately 45 minutes. The business people of Alva were very cooperative in supplying the data for this study.

After the data were compiled, tabulated and summarized, a checklist of elements of accounting as practiced by the 108 businesses included in this study was prepared to be used in analyzing the instructional content of accounting textbooks to determine whether or not they present current practices, and to what extent the differences between textbook presentation and current practices should be considered in planning the content of instruction in accounting subjects. The textbooks analyzed were the high-school textbook used in

Alva High School and the elementary accounting textbook used at Northwestern State College. The method of analysis used was to count the pages in each book devoted to each accounting practice and to note the number of times it was presented in different sections of the book.

### Findings and Their Implications

The data pertaining to the business enterprises of Alva included in this study reveal that one-half of the 108 businesses are single proprietorships, more than twice the number of either partnerships or corporations. The majority of the businesses are managed by their owners, and in 73 businesses, the owner or manager maintains his own accounting records. Indicating the small-business nature of the enterprises in Alva is the fact that one business has only one worker, 20 businesses have only two workers, nine businesses have only three workers, and only 22 businesses have 10 or more workers. In view of these data, accounting for small businesses should be a major consideration in planning the instructional content of accounting courses in this and similar areas.

Specific data concerning accounting systems and practices were collected relative to the accounting functions accomplished, business papers used as the basis for accounting entries, kinds of journals and ledgers utilized, activities at the close of fiscal periods, kinds of analyses and

comparisons made, business machines used for accounting purposes, and other miscellaneous matters pertinent to accounting.

The two major functions accomplished through maintenance of accounting records by the 108 selected businesses included in this study were securing information for income tax returns and general managerial control of the businesses. Other purposes indicated by the owners or managers were volume comparison, inventory control, credit control, cost control, and expense control.

The business papers utilized by the 108 businesses involved in this investigation were, for the most part, sales tickets, purchase invoices, receipts for cash, and checks. There were many miscellaneous papers, either variations of the four types listed above, or others peculiar to certain businesses.

A variety of journals and ledgers are used by the 108 businesses in maintaining their accounting systems. General journals, which are used extensively in textbooks for the purpose of presenting basic accounting principles, are not used by many of the businesses in Alva. Cash journals of certain kinds, such as cash receipts, cash disbursements, and the combined cash journal are used more than other kinds of journals. Approximately one-third of the businesses use sales journals, and about one-fourth use purchases journals. Only a few more than one-third have general ledgers;



accounts receivable ledgers in various forms are used by approximately three-fourths of the businesses. In many cases, the accounts receivable ledgers are merely files of sales tickets. Accounts payable ledgers, sometimes only files of unpaid purchases invoices, are used by approximately two-fifths of the businesses. There are also many special types of journals and ledgers used by the businesses of Alva that are peculiar to particular kinds of businesses.

The calendar year is the basic fiscal period in the majority of the businesses of Alva included in this study, and records are maintained on the cash basis rather than the accrual basis in most cases. In those businesses for which inventory procedures are applicable, inventories are taken by physical count once a year and valued at original cost. Twenty-one firms maintain perpetual inventories. The common method of closing books at the end of fiscal periods is to total weekly or monthly records and add these totals to ascertain the annual amounts of incomes and expenses. The standard closing procedure of journal entries posted to ledger accounts followed by ruling the ledger accounts is used by only 27 of the businesses in Alva, yet this is the method presented in textbooks. Financial statements are prepared annually by the majority of the businesses, the two statements prepared being the balance sheet and the income statement. In many cases such statements are prepared in connection with income tax returns and not as separate

statements.

Comparison of this year's volume of business with that of the previous year is the most common type of financial analysis made by the businesses of Alva included in this study. About two-thirds of the businesses make some type of volume comparison with the volume of business of the preceding year. Only 15 businesses reported that they computed per cent of net profit for the year. Only about one-fourth of the businesses compute any costs, such as cost per unit or cost per hour or day of doing business.

Business machines utilized in accounting processes by businesses of Alva are primarily adding-listing machines, cash registers, and typewriters. Typewriters are used for the most part in preparation of financial statements and in sending out statements of account. Those businesses using cash registers, as a rule check the cash registers regularly.

More than half of the businesses use, as their chief auxiliary record, a listing of fixed assets combined with a depreciation schedule. For many of these businesses, this listing is the only record of fixed assets that is maintained. For others it is supplementary to general ledger accounts for fixed assets and depreciation. Other auxiliary records used are records of insurance policies, and notes receivable and notes payable registers.

About half of the businesses deposit cash when enough has accumulated to require a deposit. The majority of the

others follow a regular deposit schedule such as daily, twice weekly, or weekly. More of the businesses make small payments from the cash drawer than maintain a petty cash fund. All of the businesses, except seven branch or chain businesses, reconcile their bank accounts monthly. The reconciliations for these seven business units are handled by their home or regional offices. Cash registers are checked regularly by the majority of the businesses using these machines.

Payroll procedures in the 108 businesses in Alva consist, for the most part, of ascertaining the deductions for social security and income tax withholding and determining the amount of the payment for each employee. A few other deductions are made by some of the businesses such as group insurance premiums, hospitalization, advances on purchases, and pension fund contributions.

The majority of the businesses included in this report provide for payments to the owners through the use of drawing accounts. Usually no definite amount is established, but owners draw from their businesses as they have need and keep records of the amounts drawn.

Reports other than income tax returns made by the 108 businesses included in this report are numerous and varied, but there are three reports that are made by significant numbers of the businesses. These are quarterly reports of withholding for social security and income tax, monthly

sales tax reports, and quarterly and annual unemployment compensation insurance reports.

In analyzing the duties performed by the personnel engaged in maintaining accounting records only those duties directly related to the accounting function in business operations were considered. In many of the businesses of Alva, owners or managers assume all of the duties involved in the maintenance of their own accounting systems, whereas in other businesses, owners or managers perform certain duties and employ personnel to perform the major portion of the accounting duties. Independent accountants are employed to perform the major portion of the accounting in a few cases, and they are employed to perform certain restricted accounting functions for many of the businesses. For the purposes of this study, the personnel engaged in accounting duties were classified as follows: owner or manager, owner-accountant, manager-accountant, employee-accountant, outside accountant, and other personnel. The data in this study reveal that the personnel primarily responsible for maintaining accounting records, that is, the owner-accountants, manager-accountants, and employee-accountants, are for the most part the ones who perform the major portion of the accounting duties. Other personnel are primarily concerned with the preparation of business papers and the taking of inventory. Outside accountants are used extensively in the preparation of financial statements, the preparation of income tax returns, and

the preparation of reports to governmental agencies. Owners or managers who do not maintain their own accounting records handle the procedures involving cash rather than allowing their employee-accountants to do so.

Data pertaining to the extent and nature of the preparation of personnel engaged in performing accounting duties show that their educational backgrounds are quite varied, ranging from the eighth grade level to doctor's degrees. Approximately 90 per cent had graduated from high school, and approximately one-third had received bachelor's degrees. About one-third of the persons engaged in accounting activities have had no formal business training, and an additional one-fifth have had no formal training in bookkeeping or accounting. Approximately one-third have studied bookkeeping in high school and one-fifth have studied some college accounting. The usual amount of college accounting completed is six hours, consisting of two semesters of elementary accounting. Other accounting courses that have been studied by a few employees are intermediate, income tax, cost, municipal, advanced, and petroleum accounting, and auditing and consolidated statements.

A large number of other business subjects have been studied by the people engaged in performing the accounting duties of the businesses involved in this study. Typewriting has been studied more than any other course. Other business subjects studied, however, include shorthand, business

mathematics, business law, business communications, economics, filing, and finance.

Approximately one-third of the people interviewed believed that formal preparation in accounting is not essential to performance of the accounting duties of their positions; one-third believed it is not essential, but it may be helpful; and one-third believe it is essential for their positions. The group reporting that formal preparation in accounting is not essential to performance of the duties of their positions have had less training in accounting than the other two groups, and the group which indicated that it is essential have had the most training. These facts might indicate two things: (1) the group believing that accounting training is necessary for their positions may not have been employed had they not had accounting training, and (2) that with knowledge of accounting comes appreciation of its usefulness of the job.

Personnel engaged in performing accounting duties, as might have been expected, reported that preparation in the subject-matter area of bookkeeping and accounting has been most helpful to them. Next in importance was mathematics, including a thorough understanding of the fundamentals of arithmetic. Typewriting is considered helpful by approximately one-fourth of the people. Other business subjects reported as being helpful were shorthand, business law, business communications, and business machines. More of the

people said that they would like to have had more preparation in the area of bookkeeping and accounting than in any other area. Other subjects mentioned frequently as needed were shorthand and typewriting.

The interviewees were asked to recommend what subjects high school and college students should study in preparation for accounting positions. More than two-thirds of the people interviewed expressed the belief that a thorough understanding of the fundamentals of bookkeeping and accounting constitutes essential preparation for accounting positions. Other subject-matter areas mentioned frequently were mathematics, typewriting, shorthand, English and speech, and penmanship. In addition to subject-matter areas recommended, several interviewees suggested desirable work habits, traits, and skills that should be developed such as accuracy, sense of responsibility for doing work, neatness, good judgment, attention to detail, concentration, ability to check work, ability to fill in forms, ability to apply learning to a job, ability to make tax returns or reports of various kinds, including income tax returns.

The majority of the people engaged in performing accounting duties in the businesses of Alva included in this study began their employment with the firms by which they are still employed in their present positions. They have held their positions for periods ranging from three months to 33 years, more of them having held their positions from one to

five years than any other period of time.

The analysis of textbooks according to the checklist of elements of accounting prepared from the data obtained in this study was limited to two textbooks--the high-school textbook in use in bookkeeping classes at Alva High School and the college accounting textbook used in the elementary accounting classes at Northwestern State College. The analysis revealed that in many areas the textbooks include adequate coverage of the accounting practices but in other areas the coverage is extremely limited or practices are not included at all. Areas that are adequately covered in both books are double-entry accounting, business ownership, accrual basis of accounting, journals and ledgers used, adjusting and closing entries, financial statements, auxiliary records, cash procedures, and payroll procedures for deductions from employees' salaries. The textbooks provide much material for applications of accounting principles through exercises, problems, projects, and practice sets. However, areas in which textbooks do not give adequate coverage and in which accounting teachers probably should prepare and present supplementary materials are: single-entry record-keeping, cash basis of accounting, business papers, combined cash journal, the closing method of totaling journals or ledgers, financial analysis and comparisons, use of business machines in accounting, and preparation of income tax returns and other tax and governmental reports.



Based on analysis of the textbooks and other data, implications for improvement of instruction in accounting are: (1) accounting teachers should give recognition to current practices in presenting instructional materials emphasizing the variations in accounting systems in business; (2) instructional material on suitable records for small businesses should be included in elementary accounting courses; (3) single-entry methods should be introduced in elementary accounting courses; (4) textbook materials regarding business papers should be supplemented; (5) use of the combined cash journal for small business records should be emphasized; (6) the cash basis of accounting should be included and less time should be devoted to consideration of adjusting entries for accrued and prepaid items; (7) methods of closing books other than closing by journal entries should be presented; (8) students should be required to prepare some typewritten financial statements; (9) students should be given opportunity to prepare reports such as monthly sales tax, quarterly social security and income tax withholding, unemployment compensation insurance reports, and income tax returns.

### Conclusions

From the interview data obtained in this study and the analysis of textbooks, the author has drawn the following conclusions:

1. Accounting systems and procedures used in business

organizations are such that they can be readily classified and correlated in terms of duties performed by individuals. Since instruction in accounting is designed primarily to prepare people to fulfill duties in specific accounting occupations, it is concluded that a close relationship does exist and should be facilitated between actual practice and instruction in the schools.

2. Basically, instructional material as presented in accounting textbooks is sound in terms of accounting principles. However, to the extent that current practices and procedures are not reflected adequately in the textbooks, they are inadequate as the major source of information for preparing individuals to fulfill functions in accounting in both large and small business enterprises.

3. Elementary accounting textbooks should include more instructional material relative to suitable records for small businesses that will be simple to maintain yet provide adequate information for management purposes. If the textbooks are not revised in this regard, it is evident that teachers will have to rely entirely upon supplementary material if this aspect of accounting is adequately presented to students.

4. Business teachers must be familiar with the current accounting practices used in businesses in their communities if they are to be certain that current practices are represented in the textbooks and in the instructional

activities in their accounting courses.

5. Since accounting practices change with new laws and new developments in technology, studies such as this one should be repeated at intervals and in different parts of the country.

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## APPENDIX A

Confidential

Code Number \_\_\_\_\_

### INTERVIEW GUIDE

#### Part I. Information about the business

Bookkeeping system: Single entry \_\_\_\_\_ Double entry \_\_\_\_\_

Accounting basis: Cash basis \_\_\_\_\_ Accrual basis \_\_\_\_\_

Ownership: Proprietorship \_\_\_\_\_ Partnership \_\_\_\_\_

Corporation \_\_\_\_\_ Cooperative \_\_\_\_\_

Method of handling sales: Cash \_\_\_\_\_ Credit \_\_\_\_\_

Cash and Credit \_\_\_\_\_

Operation: Chain \_\_\_\_\_ Voluntary chain \_\_\_\_\_

Independent \_\_\_\_\_ Agency \_\_\_\_\_

Number of employees: Total \_\_\_\_\_ Male \_\_\_\_\_ Female \_\_\_\_\_

Management: Proprietor \_\_\_\_\_ Manager \_\_\_\_\_

Records maintained by: Proprietor or Manager \_\_\_\_\_

Bookkeepers or accountants \_\_\_\_\_

Number performing significant accounting functions \_\_\_\_\_

Outside firm \_\_\_\_\_

## INTERVIEW GUIDE

## Part II. Accounting System and Practices

1. Who designed your present accounting system? \_\_\_\_\_

\_\_\_\_\_

2. How long has your present accounting system been in use?

\_\_\_\_\_

3. What kinds of business papers do you use as the basis  
for entries in your books? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Who prepares these papers? \_\_\_\_\_

\_\_\_\_\_

4. What kinds of records do you use as your books of  
original entry? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Who enters transactions in the books of original entry?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



5. What kinds of ledgers do you use? \_\_\_\_\_

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(Files, visual records, etc.)

Who is responsible for posting to the ledgers? \_\_\_\_\_

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6. What auxiliary records do you maintain? (fixed assets-depreciation, notes receivable, notes payable, insurance policies, etc.) \_\_\_\_\_

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Who maintains these records? \_\_\_\_\_

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7. What is your fiscal period? \_\_\_\_\_

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8. What closing procedures do you follow? \_\_\_\_\_

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Who is responsible for closing the books at the end of the fiscal period? \_\_\_\_\_

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9. What kinds of financial statements do you prepare: regularly? \_\_\_\_\_

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occasionally? \_\_\_\_\_

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Who is responsible for preparing the financial statements? \_\_\_\_\_

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10. Are any ratios computed or comparisons made for the purpose of management? \_\_\_\_\_

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11. What business papers do you utilize to supplement basic accounting records? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12. What is your procedure for handling cash? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Who is responsible for handling cash? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13. What procedures do you follow in accounting for inventories? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Who is responsible for taking the inventories? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

14. What procedures do you follow in accounting for supplies? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Who is responsible for handling supplies? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15. What kinds of sales analysis records (daily, weekly, monthly) do you maintain? \_\_\_\_\_

\_\_\_\_\_

Who prepares these records? \_\_\_\_\_

\_\_\_\_\_

16. What kinds of records (summaries, comparisons) do you maintain in regard to purchases? \_\_\_\_\_

\_\_\_\_\_

Who prepares these records? \_\_\_\_\_

\_\_\_\_\_

17. What kind of cost records do you maintain? \_\_\_\_\_

\_\_\_\_\_

Who prepares these records? \_\_\_\_\_

\_\_\_\_\_

18. What payroll information do you maintain? (deductions)

\_\_\_\_\_

Who prepares the payroll? \_\_\_\_\_

\_\_\_\_\_

19. What provisions are made for proprietor's, partners', or manager's expense, drawing, and/or salary records?

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20. What business machines do you use in the accounting procedures? \_\_\_\_\_

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Who operates these machines? \_\_\_\_\_

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21. Who prepares your income tax return? \_\_\_\_\_

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22. What other reports (city, county, state, and federal) are you required to file and by whom are they prepared?

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## INTERVIEW GUIDE

## Part III. Preparation of accounting personnel (for each person performing accounting duties)

1. What formal preparation have you had for performing accounting duties? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
(extent of education, major field, years or semester hours and courses in bookkeeping and accounting, place and date)

2. In what way has your preparation been most beneficial?

3. In what way has your formal preparation been inadequate?

4. Is formal preparation in accounting necessary to perform the accounting duties of your position? \_\_\_\_\_

5. What recommendations would you make concerning preparation for accounting positions? \_\_\_\_\_

6. How long have you been in this position? \_\_\_\_\_

7. What was your first position with the firm? \_\_\_\_\_

## APPENDIX B

### LIST OF COOPERATING BUSINESSES

#### RETAIL:

Alva Ice Company  
Alva Linoleum and Tile Shop  
Alva Office Supply and Shoe Repair  
Alva Tire and Supply Company  
Amsden Lumber Company  
Anthony, C. R., Company  
Bloyd & Company  
Brunsteter Motor Company  
Buck's Conoco  
Campus Canteen  
Colony Furniture Company  
Consolidated Northwest, Inc.  
Crawford, Fred, Motor Company  
Davis Paint Associate Store  
Devery Implement Company  
Edwards, Joe, Motor Company  
Egner Cabinet Shop  
Evans, W. R., Hardware Company  
Ewalt Buick Company  
Faires Cafe  
Farmers Cooperative  
Gard's Jewelry  
Goodrich Plumbing and Heating Company  
Gordon's Cafe  
Holder-Southern Drug  
Jett, W. E., Mercantile Company  
Larison's Restaurant  
LeMar Tot Shop  
Loomis, C. E., Furniture Company  
Magnuson Brothers Grocery  
Maxwell Florist  
M'Lady's  
Neuman's Music Center  
Oklahoma Tire and Supply Company  
Pangburn's Town and Country Drive-in

Paul and Sons  
 Penney, J. C., Company  
 Red Horse Service Station  
 Redbud Food Center  
 Reed, J. P., Feed and Poultry Company  
 Safeway Stores, Inc.  
 Savere Refrigeration Company  
 Shafer Radio Service  
 Sportsman's Post  
 Starr, W. W., Lumber Company  
 Sweet Shop  
 T. G. & Y.  
 Tanner, E. W., and Company  
 Thilsted Electric  
 Tyree's Men's Wear  
 Vogue, The  
 Warrick's Shoes  
 Wells Texaco Station  
 Western Auto Associate Store  
 Wood-Appleman Company  
 Woody's Sinclair Service

PUBLIC UTILITIES:

A. T. & S. F. RR Company  
 Zenith Gas System, Inc.

CONTRACT CONSTRUCTION:

Rose Brothers Construction Company

MANUFACTURING:

Alva Monument Works  
 Alva Review Courier  
 Alva Roller Mills  
 Golden Krust Bakery  
 Shalloup Packing Company

FINANCE, INSURANCE, AND REAL ESTATE:

Alva Building and Loan Association  
 Arganbright's Real Estate-Auction  
 Central National Bank  
 Deusinger Realty Company  
 Johnson, Kent W., and Sons  
 McClure Insurance Agency  
 Old Surety Life Insurance Company  
 Public Installment Loan Company  
 Roepke, Howard, Insurance Agency



SERVICE INDUSTRIES:

Alva Body & Fender Shop  
Belle's Beauty Shop  
Chamber of Commerce  
Ferguson Laundry  
Frederick's Studio  
Hotel Bell  
Houts Abstract Company  
Hub Dry Cleaners  
Moore, E. W.  
Moore's Studio  
Morefield, Frank  
Parker, Glen, Motor Clinic  
Retail Merchants Credit Association  
Rialto Theatre  
Stiles Funeral Home  
United Brake and Electric Shop  
Vista Motel  
Wardrobe Cleaners  
Woods County Abstract Company

WHOLESALE:

Hackett Auto Supply  
Munson Hatchery  
Roberts' Cities Service

PROFESSIONAL:

Fuls, Perry H., optometrist  
Mauntel & Doolin, lawyers  
Shepherd, David J., dentist  
Stephenson, I. F., doctor  
Traverse, C. A., doctor

CHURCHES, SCHOOLS, AND HOSPITALS:

Alva General Hospital  
Alva Public Schools  
Christian Church  
First Methodist Church  
Northwestern State College

CITY, COUNTY, AND FEDERAL OFFICES:

City Clerk  
County Treasurer  
United States Post Office