August 8, 1973

To the Graduate Council:

I am submitting herewith a thesis written by Mildred Ann Huff entitled "A Survey of Office Workers in Cocke County, Tennessee, to Determine Need for a High School Vocational Office Education Program." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Business Education.

Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor for
Graduate Studies and Research

# A SURVEY OF OFFICE WORKERS IN COCKE COUNTY, TENNESSEE, TO DETERMINE NEED FOR A HIGH SCHOOL VOCATIONAL OFFICE EDUCATION PROGRAM

A Thesis

Presented to

the Graduate Council of

The University of Tennessee

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Mildred Ann Huff

August 1973

ABSTRACT

The purposes of this study were (1) to determine the number and the types of clerical and related positions held by workers in Cocke County, Tennessee; (2) to determine the educational level and skills generally needed by workers in these positions; (3) to determine additional education and training needed by present workers; and (4) to determine the projected employment opportunities in clerical and related positions in the county.

Data for this study were obtained primarily through an occupational survey completed by office workers employed in clerical and related positions as identified by the Dictionary of Occupational Titles. An alphabetical listing of businesses and firms employing one or more persons in clerical and related positions was obtained from the Tennessee Employment Office in Newport, Tennessee. From the list, a simple random sample was taken; and half of the businesses were chosen.

The person in charge of employment at each of the establishments selected were contacted by the investigator to determine the number of clerical workers employed. The employers at 71 places of business were then mailed the appropriate number of survey forms with stamped, self-addressed envelopes. A cover letter was enclosed explaining the purpose of the study and asking for the cooperation of the employers in distributing the forms and seeing that they were returned. To assure proper



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distribution of the survey forms, a sheet listing the jobs classified in the Dictionary of Occupational Titles under clerical and related positions was attached to the cover letter.

After two weeks a follow-up was conducted by the investigator. Of the businesses surveyed, 230 clerical workers were employed; and 162, or 70 percent, of the survey forms returned were usable.

Major findings of the study are summarized as follows:

1. Of the 162 workers surveyed, 62 were employed in stenography, typing, filing, and related occupations; 54 were employed in computing and account-recording occupations; 2 were employed in material and production recording occupations; 24 were employed in information and message distribution occupations, and 20 were employed in miscellaneous clerical occupations.

2. Of the workers surveyed, 15 were employed in stenographic positions; 52, in bookkeeping positions, and 95, in clerical positions.

3. The majority, 92, or 56.8 percent, of the workers had post-high school education and training; and 69 of these had attended business college or an area trade/vocational school.

4. The majority, 114, or 70.4 percent, of the workers used typing on their present job; and 95, or 58.6 percent, of the workers used office machines. Most jobs required a typing speed of 50-60 words per minute.

5. The workers desired additional courses which they felt would be of value to them on their present job. Accounting/bookkeeping was desired by 32 workers, 16 of whom had received no training beyond the high school

level. Shorthand/speedwriting was requested by 22 workers, 13 of whom completed their education upon graduation from high school. Typewriting was requested by nine workers, none of whom had received post-high school training.

6. The projected employment by the present workers for openings in their type of work and with their company or firm in the next two to three years totaled 102; the projection for openings for additional workers by the employers totaled 51. Since almost one-half of the workers in clerical and related positions were surveyed, a more accurate projection can be made by doubling the figures. Therefore, based upon the employees' projection, approximately 204 positions would be available for workers in clerical and related positions in the next two to three years; and based upon the employers' projection, 102 positions would be available.

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# CHAPTER I

## THE PROBLEM

> Every person should be equipped to secure a livelihood for himself and for those dependent upon him, and education should equip him to serve society in a productive manner.[1]

Since data released by the U. S. Office of Education indicated that 70 percent of the youth conclude their formal education during their junior or senior year of high school, it is the responsibility of society to be certain that these students have a saleable skill as they leave school seeking their first employment.[2]

For many decades vocational education has been given attention and support by the federal government, but the Vocational Education Act of 1963 provided impetus needed for strengthening and improving the quality of vocational education and expanding the vocational opportunities in the nation. For the first time, federal money was provided for education for the office occupations.[3] The federal legislation permitted three types of Vocational Office Education programs to be funded for the secondary schools: a co-operative, a laboratory type, and a directed project. At

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[1]U. S. Department of Interior, Bureau of Education, Cardinal Principles of Secondary Education, Bulletin, 1918, No. 35 (Washington: U. S. Government Printing Office, 1918).

[2]Herman G. Enterline, "The Business Curriculum," American Business Education, XVII (May, 1961), 198.

[3]C. A. Nolan, Carlos K. Hayden, and Dean R. Malsbary, "Development and Present Status," Principles and Problems of Business Education (Cincinnati: South-Western Publishing Co., 1967), p. 57.

the local level, the type of program chosen is aimed at preparing students for occupations in one of three areas--stenographic, bookkeeping, or clerical--depending upon the needs of the community in which the school is located.

Conant stated, "A vocational program at the high school level should be related to the employment opportunities in the general locality."[4] The development of sound occupational programs is usually based on the results of a community occupational survey.

## I. STATEMENT OF THE PROBLEM

The purposes of this study were (1) to determine the number and the types of clerical and related positions held by workers in Cocke County, Tennessee; (2) to determine the educational level and skills generally needed by workers in these positions; (3) to determine additional education and training needed by present workers; and (4) to determine projected employment opportunities in clerical and related positions in the county.

## II. ANALYSIS OF THE STUDY

By surveying the present office workers in order to determine the need for training high school students for office occupations, the following questions were considered:

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[4]James B. Conant, "Vocational Education and the National Need," American Vocational Association Journal, XXXV (January, 1960), 18.

1. What was the number of workers employed in each major job classification under clerical and related positions as identified in the Dictionary of Occupational Titles?

2. What portion of the workers surveyed was employed in stenographic, bookkeeping, and clerical occupations?

3. What preparation and training did the workers receive in preparing for employment?

4. What specific courses were desired by the workers?

5. What skills were required for the present position held by each worker?

6. What office machines were being used by the workers?

7. What was the number of estimated job openings for the type of jobs in which the workers were presently employed?

## III. BACKGROUND OF THE PROBLEM

In Cocke County 53 percent of the students entering the first grade never graduate, and annually 180-200 graduating seniors do not receive further training and education.[5] The county has an unemployment rate of 32.6 percent among youth between the ages of 16-19; only three other counties in the state have a lower rate of unemployment for this age group.[6] Forty percent of the families in Cocke County have an income

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[5]Statement by Floyd Williams, personal interview, Newport, Tennessee, July 18, 1972.

[6]Tennessee State Plan for the Administration of Vocational Education, Part II, Tennessee State Board for Vocational Education, 1972-73, p. 17.

of less than $3,000 a year; therefore, many of these families cannot afford further education and training for their children after graduation from high school.[7] However, the counselors at the Tennessee Employment Security Office encourage high school graduates interested in office occupations to receive further training in office education before seeking employment.[8]

Perhaps a Vocational Office Education program in the high schools would interest some students who would otherwise drop out of school. Such a program could also prepare the students with marketable skills, so they could seek employment in office occupations upon graduation and thus help reduce the unemployment rate among this age group. A recent publication attested to the need for more extensive vocational programs in Cocke County. A study of the Cocke County School System conducted in 1972 by the Bureau of Educational Research and Service at The University of Tennessee, Knoxville, recommended a Vocational Office Education program as a needed subject area in vocational education for the county.[9] However, their recommendation was based on informal discussions with businessmen in the county.

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[7] Ibid., p. 13.

[8] Statement by Williams, op. cit.

[9] Bureau of Educational Research and Service, A Special Summary Survey of the Cocke County, Tennessee, Schools, University of Tennessee, January 1972, p. 85.

## IV. IMPORTANCE OF THE STUDY

The 1963 President's Panel on Vocational Education found that business education classes had been producing graduates who could type and take shorthand but lacked proper knowledge of office procedures. The panel's report indicated the need for total programs in which the students have the opportunity to integrate their skills and knowledges.[10]

The Vocational Education Act of 1963 permits the state departments of education to determine the need for and the type of training that should be offered. Particularly in the field of education for office occupations, the proposals for federal and state reimbursed programs must be supported by a survey of the need for the type of person trained under such a program.[11]

McCarthy stated:

> Occupational trends and changes in an area need to be investigated and the facts about these occupational situations should constitute a long-range study of needs and considerations of the school program.[12]

The present survey of workers in office occupations in Cocke County will provide information as to the types of clerical positions available,

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[10]Robert Poland, "Block-Time Approach in Office Education," The Emerging Content and Structure of Business Education, NBEA Yearbook, No. 8, ed. by Ray G. Price (Washington: National Business Education Association, 1970), p. 263.

[11]Nolan, Hayden, and Malsbary, op. cit., pp. 56-57.

[12]John A. McCarthy, Vocational Education: America's Greatest Resource (Chicago: American Technical Society, 1952), p. 154.

the skills necessary for employment in these positions, whether or not training received in high school was adequate for entry into the job market, and the projected employment for workers in clerical and related positions.

This research study will aid the school administrators by providing recommendations as a basis for improving the high school curriculum to better meet the needs of the students and the community with regard to education for office occupations.

## V. SOURCES OF DATA AND METHOD OF PROCEDURE

Data for this study were obtained primarily from a survey completed by workers employed in clerical and related positions in Cocke County, Tennessee. Additional information was obtained from published literature about Cocke County, the Chamber of Commerce, and the Tennessee Employment Security Office.

A letter was written to the Cocke County Chamber of Commerce and the Cocke County Superintendent of Schools informing them of the proposed study and asking for their cooperation.

After a study of material related to the planning and conducting of an occupational survey, a survey form was prepared; and copies of the survey form were completed by approximately twenty people in various office occupations in Knox County, Tennessee. Upon return, the survey forms were analyzed to determine the adequacy of the form in obtaining the desired information. The survey form was revised and approved for use in the study.

An alphabetical listing of businesses and firms employing at least one person in clerical and related positions, as identified in the Dictionary of Occupational Titles, was obtained from the Tennessee Employment Security Office in Newport, Tennessee. Due to limited time and money, a simple random sampling was taken from the list; and 78 of the 156 establishments listed were chosen. The person in charge of employment at each place of business was contacted by telephone to determine the number of workers employed in clerical and related positions. Seven establishments contacted did not employ clerical workers.

One week prior to the mailing of the survey forms, an article was placed in the local newspapers informing the people of the county that a survey of office workers would be conducted, explaining the purpose of the survey, and informing them of the value of a Vocational Office Education program to students and employers. The article also asked for the cooperation of the people who would be receiving the survey forms.

Three hundred and five survey forms with stamped, self-addressed envelopes were mailed to the persons in charge of employment at the 71 places of business participating in the survey. A cover letter was enclosed explaining the purpose of the study and asking for the cooperation of the employers in distributing the forms and seeing that they were returned. To assure that the forms would be properly distributed, a sheet listing the jobs classified in the Dictionary of Occupational Titles under clerical and related positions was attached to the letter.

Since the survey forms did not ask for the names of the individuals filling out the forms, a check on the forms was maintained by numbering them consecutively. A record was kept showing the names of the companies and the numbers on the survey forms received from each establishment.

Since an acceptable return was not received within a week, the investigator conducted a follow-up by telephone. Two weeks later the investigator visited the places of business and delivered more survey forms in case the previous ones had been misplaced; these forms were collected the following day. By visiting the establishments, the investigator learned that many employers had over-estimated the number of workers employed in clerical and related positions which were to be surveyed. Also, 20 of the survey forms previously received by mail were completed by employees in other areas of work. Of the businesses surveyed, 230 clerical workers were employed; and 162, or 70 percent, of the survey forms returned were usable.

A code guide for recording the information contained in the completed survey forms was prepared. The results were then punched into I.B.M. cards and tabulated.

## VI. SCOPE AND LIMITATIONS

An occupational survey was conducted in the spring of 1973 by the investigator to collect and analyze data relating to workers employed in clerical and related positions in Cocke County, Tennessee.

The present study had the following limitations:

1. Workers included in this study were those employed in clerical and related positions as classified by the Dictionary of Occupational Titles.

2. A simple random sample of 71 places of business employing one or more workers in clerical and related positions was the basis for the analysis of the study.

## VII. DEFINITION OF TERMS

The following terms are defined in order to identify the three types of Vocational Office Education programs and the office positions, according to the Dictionary of Occupational Titles, for which they prepare students:

The bookkeeping program trains workers for all positions listed in the Dictionary of Occupational Titles under the job classification of computing and account-recording occupations (see Appendix p. 57).

The clerical program prepares students for all other positions listed under clerical and related positions in the Dictionary of Occupational Titles, with the exception of those jobs which require the use of shorthand and those jobs classified as computing and account-recording occupations.

According to the Dictionary of Occupational Titles, shorthand is used by a worker employed as a secretary or a stenographer. The stenographic program prepares students for office jobs requiring the use of shorthand and all positions for which the clerical program prepares students.

## VIII. RELATED RESEARCH

From numerous studies using the survey method, three studies relating to the present study were chosen; and some of the major findings or conclusions are given. Also, the similarities of these studies as related to the present study are given.

A study using an occupational survey was conducted by Weaver[13] in 1965 to collect and analyze data relating to workers in the age range of 25 to 29 who were employed in establishments located within the city limits of Martinsville, Virginia.

Broad points covered in the study which relate to the present study included:

1. Classification of workers according to occupation.
2. Ways in which the workers believed they could improve their work at their present job.
3. Preference of ways students could help prepare themselves for occupations.
4. Estimated openings in the workers' present line of work.
5. Highest educational level achieved.[14]

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[13]Frances Ann Weaver, "Classifications of Workers in the Age Range of 25 to 29 in Martinsville, Virginia, According to Occupation, Education, and Average Salary with Recommendations for Educational Help and Training for Present Workers and Prospective Workers" (unpublished Master's thesis, University of Tennessee, 1965), pp. 95.

[14]Ibid., p. 2.

Major conclusions in the Weaver study included:

1. No significant findings existed between the amount of education and employment, but high school and college were required for some positions.

2. Additional education was desired by the workers for job improvement.

3. More education, encouragement, and job information were needed by individuals prior to employment.

4. Based on information in the study, jobs should continue to be available in the different areas of work.[15]

The Weaver study bears a greater resemblance to the present study than any other reviewed. However, the Weaver study differs from this study in that all workers in the age range of 25-29, regardless of occupation, were surveyed. The present study includes workers of all ages engaged only in clerical and related positions. Also, the present survey includes all office workers in the county, not just those within the city limits of Newport.

A study was conducted by Temple[16] in 1970 to determine (1) the vocational educational needs of Blount County, Tennessee, (2) the public opinion of residents of the county toward vocational education programs,

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[15] Ibid., pp. 71-72.

[16] Charles Temple, "A Study of the Vocational Needs of the Alcoa, Blount County, and Maryville School Systems" (unpublished Doctor's dissertation, University of Tennessee, 1970), pp. 265.

(3) the feasibility of consolidating the three school systems' vocational programs into one jointly supported program, (4) the vocational curriculum that would be relevant to the area, and (5) the educational facility in the three systems that could adequately house a county-wide vocational program.

Major conclusions in the Temple study included:

1. High mobility of society demands that educators consider not only the vocational needs of the immediate area but also national needs and the individual needs and desires of the students.

2. Vocational programs were inadequate. There were unfilled employment opportunities, high unemployment rates, and a lack of skilled workers.

3. Further need for relevant programs was attested to by all of the adult groups in the survey.

4. Vocational programs on both the secondary and post-secondary levels were needed.[17]

The Temple study is related to the present in that it was used to determine the vocational needs of the students in the county; however, it was a broader study because the present study deals with one aspect of vocational education--vocational office education. Temple collected data through survey forms, but they were sent to employers rather than employees.

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[17]Ibid., pp. 183-184.

Both studies included information on education and skills necessary for the workers' present positions and the estimated number of additional persons to be employed in the next few years in the positions covered by the survey.

Malone[18] conducted a survey in 1963 to determine the effectiveness, value, and influence of high school business training on graduates of Jefferson High School, Jefferson City, Tennessee, for the five-year period, 1956-1960; to determine the extent to which other classes in the high school had presented business information which had been of benefit; and to determine the extent and value of the business training received by the graduates in business courses taken while in high school.

Major findings of the Malone study included:

1. Graduates tended to remain within the state, and more than two-thirds continued their formal education in some manner.

2. More than one-fourth entering college pursued a business career.

3. Two-thirds of those attending business college chose courses of study which would qualify them for secretarial work.

4. One year of shorthand was inadequate for preparing students to use the skill proficiently.[19]

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[18]Jessie B. Malone, "A Study to Determine the Effectiveness, Value, and Influence of High School Business Training of Graduates of Jefferson High School, Jefferson City, Tennessee, for 1956-1960" (unpublished Master's thesis, University of Tennessee, 1963), pp. 151.

[19]Ibid., pp. 128-129, 131.

The Malone study is related to the present study in that the major source of data was collected through use of a survey form to past students. However, the study was a follow-up on business graduates to determine the effectiveness of the business courses; and in this study an occupational survey was used to determine if there is a need for an improved business education program in the high schools of Cocke County, Tennessee--specifically a Vocational Office Education program.

## IX. ORGANIZATION OF THE STUDY

Chapter I consists of the statement of the problem, analysis of the study, background of the problem, importance of the study, sources of data and method of procedure, scope and limitation of the study, definition of terms, related studies, and organization of the study.

Chapter II contains basic information about the county and the city, the industrial growth and development, and the educational system.

Chapter III contains the following information about the present workers: job classification of workers by highest educational level achieved, job classification of workers by age, ways for improvement of job performance, number of jobs held, number of years at present job, reason for choosing present job, skills and specific office machines used. Chapter III also includes the workers' advice to future students in preparing for an occupation and the estimated number of openings in the near future for workers in clerical and related positions.

Chapter IV consists of the findings, conclusions, and recommendations of this study and recommendations for further study.

The Appendix contains a copy of the cover letter of explanation mailed to the employers of the workers surveyed, the sheet listing all clerical and related positions, and the survey form. Also, included in the Appendix is a copy of the code guide used for recording the answers from the survey forms for tabulating purposes.

## CHAPTER II

## BASIC INFORMATION ABOUT COCKE COUNTY

A study pertaining to office occupational needs of Cocke County would be incomplete without some knowledge and understanding of the area covered in the survey. A summary of the pertinent facts about the county and city, industrial growth and development, and the educational system are presented in this chapter.

### I. THE COUNTY AND CITY

Cocke County, Tennessee, lies in the northeast central portion of the State of Tennessee with its eastern line bordering North Carolina. The Nolichucky River serves as the northern boundary; Greene County, as the northeast boundary; and Sevier County, as the western boundary. Cocke County gets its name from William Cocke who was a Revolutionary Was fighter and early political leader.[1] The county is 500 square miles with an average elevation of about 1,400 feet above sea level, and the population of the county as of 1970 was approximately 27,000.[2] The county is governed by the Cocke County Court consisting of 21 elected members.

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[1]Ruth Webb O'Dell, "Political History of Cocke County," Over the Misty Blue Hills (Printed in the United States of America, 1950), p. 62.

[2]Newport, edited by Rolfe Fort Godshalk and Priscilla B. Boozer, The Clifton Club (Newport: Ideal Printing Co., 1970), p. 7.

Newport, Tennessee, serving as the county seat of Cocke County, became a municipal incorporation in 1812 and in the early 1870's became the permanent county seat of the county.[3] The town of Newport is governed by its mayor and board of aldermen, who collectively exercise the legislative and executive powers delegated to the town in its charter. Elections are non-partisan. The mayor, board of aldermen, city recorder, city judge, and city treasurer are popularly elected and serve two-year terms. Newport contains approximately 4 square miles and in 1970 had a population of approximately 7,328.[4]

Ten years ago out migration of Cocke County was extremely high; however, the population figures of 1972 indicated that out migration has been slowed and possibly will be halted.[5] The out migration in 1970 was less than one-fifth the rate in 1950; and in 1970, of the total net migration, 77.6 percent occurred among persons 15 to 24 years of age.[6]

Religion plays a vital part in the lives of the people of Cocke County. With the establishment of the Nazarine Church of God and the organizing of a Catholic and Episcopal mission, all major denominations are now represented.

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[3]O'Dell, "Cocke County History," op. cit., p. 22.

[4]Statement by Eva Sexton, personal interview, Newport, Tennessee, June 8, 1973.

[5]Bureau of Educational Research and Service, A Special Summary Survey of the Cocke County, Tennessee, Schools, University of Tennessee, January, 1972, p. 73.

[6]Tennessee Population and Housing 1950-1970, Part I, University of Tennessee Center for Business and Economic Research, 1970.

## II. INDUSTRIAL GROWTH AND DEVELOPMENT

Even though 66 percent of Cocke County's land is forest, the primary occupation of the people was farming until the flooding of 4,450 acres of prime riverbottom land for Douglas Lake in 1942.[7] Still, the growing of tobacco and more recently tomato crops is big business; but there has been a shift to industry during the past decade with an average of one new industry per year since 1956.

Newport's economy can be described as growing and diversified. The town is centrally located to the major markets of the eastern United States by modern highway systems, Interstate I-40, and railroad networks. Much of the strength of the county's economy lies in its diversification--agriculture, industry, tourism and merchandising. The variety of industrial products ranges from furniture, canned foods, and specialty paper products to tires, chemicals, and air conditioning equipment. This diversification protects Newport from technological and market changes in a single industry.

As Cocke County is located close to Gatlinburg and the Great Smoky Mountains National Park, many resort developments are also reaching into the county. The business district has expanded to meet the needs of the area, and two new shopping centers have been built in the heart of town.

The county has a large, hard-working labor force of approximately 8,100 workers with 5,465 being employed in the county.[8] The Protestant-

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[7] Newport, op. cit., p. 185.

[8] Selected Data on Cocke County for Educational Planners, Tennessee State Board for Vocational Education, 1973, p. 4.

Christian work ethic permeates the community. People have great pride in their work and concern themselves specifically with the manual task at hand.

With all its growth and progress, statistics show, however, that Cocke County is the ninth most deprived county in the state; this ranking was determined by combining the rate of civilian unemployment and the percentage of families having an annual income of less than $3,000.[9] Furthermore, 12.2 percent of the work force is unemployed; only three other counties in the state have a higher rate of unemployment among their work force.[10]

## III. EDUCATION

The Cocke County Education System is under the direction of the Cocke County Board of Education which consists of seven elected members who serve as a governing and policymaking body. The Education System is under direct supervision of the Superintendent of Schools who is elected by the people.

The county has 13 consolidated public schools, including ten elementary schools and three high schools--Cocke County High, Cosby High, and Parrottsville High. A new school was built for Cocke County High in

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[9] Tennessee State Plan for the Administration of Vocational Education, Part II, Tennessee State Board for Vocational Education, 1972-73, p. 13.

[10] Ibid., p. 17.

1963. The schools were integrated in 1967, and the county has a total enrollment in grades 1-12 of approximately 6,299. Grades 9-12 have an approximate enrollment of 1,681.[11] In 1967 Parrottsville Elementary School and Parrottsville High School were condemned by the State Department of Education, and plans for a new building program were recently approved. A new Parrottsville Elementary School will be built in the near future. The two high schools, Cocke County High and Parrottsville High, will be consolidated with the enlargement of the physical plant of the present Cocke County High School building.

The only school in the city system is the Newport Grammar School located in the center of town. The school is operated by the Newport City Board of mayor and aldermen who delegate the responsibility of the school program to five school board members appointed for a three-year term.

The business education curriculum at the high schools is limited. General business, bookkeeping, and Typewriting I are taught at Parrottsville High and at Cosby High. Cocke County High offers general business, bookkeeping, shorthand, business math, Typewriting I and II. However, the counselors at the Tennessee Employment Security Office in Newport report that they encourage all graduates interested in office occupations to receive further training in office education before seeking employment.

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[11] Selected Data on Cocke County for Educational Planners, op. cit., p. 2.

A survey of educational needs of Cocke County was conducted by a team from the Bureau of Educational Research and Service from The University of Tennessee, Knoxville. The survey team recommended the building of a vocational high school to serve the needs of the students of the community. One subject area recommended for the curriculum was a program in office education.[12]

[12]Bureau of Educational Research and Service, op. cit., p. 84.

# CHAPTER III

## PRESENT AND POTENTIAL EMPLOYMENT IN SELECTED OCCUPATIONS

Chapter III contains the information obtained from the 162 survey forms completed by workers in Cocke County, Tennessee, employed in clerical and related positions as identified in the Dictionary of Occupational Titles. A miscellaneous category was used under each major job classification, and workers whose jobs could not be classified under one of the specific job titles were considered in the miscellaneous category. In many instances the workers' job duties consisted of a combination of tasks characteristic of one or more of the jobs listed under that particular job classification. The following information about the present workers is included in this chapter: the job classification of the workers and the number employed in each area, the age of the workers and their highest educational level achieved, courses the workers felt would be of value to them in their present positions, preference of the way they could do better work on their present jobs, the number of jobs held by the workers since leaving school, a range of the number of years the workers have been at their present positions, the workers' three major reasons for choosing their present occupations, skills and office machines used by the workers. Also included in this chapter are ways suggested by the present workers in which future students could better prepare for an occupation and the projected employment by the present

workers for future openings in the clerical and related positions surveyed.

## I. JOB CLASSIFICATION OF WORKERS BY HIGHEST EDUCATIONAL LEVEL ACHIEVED

To determine the job title of the workers, the investigator considered the six major tasks the workers performed on the job and then assigned a job title according to the definition given for each clerical and related position as defined by the Dictionary of Occupational Titles.

The job classification and number of workers in each are compared with their highest educational level achieved in Table I. Of the 162 workers surveyed, 62, or 38.3 percent, were employed in stenography, typing, filing, and related occupations. In this category, 39, or 62.9 percent, had post-high school training and education.

In computing and account-recording occupations, 54, or 33.3 percent, of the workers surveyed were employed. Fifty percent of the workers in this area of work were employed as bookkeepers. One person was a college graduate, and 29 of the workers had received post-high school training and education.

Of the workers surveyed, 24, or 14.8 percent, were employed in information and message distribution occupations. Twelve of these workers received training beyond the high school level, and three were college graduates.

Employed in miscellaneous clerical occupations were 20, or 12.3 percent, of the workers; and 11 of these workers had post-high school

TABLE I

JOB CLASSIFICATIONS OF WORKERS BY EDUCATIONAL LEVEL IN COCKE COUNTY, TENNESSEE, SPRING 1973

| Job Classification | Highest Educational Level | | | | | Number of Workers Surveyed |
|---|---|---|---|---|---|---|
| | 9th-11th Grade | High School Graduate | Area Trade Vocational School or Business College | 1, 2, or 3 Years of College | College Graduate | |
| **Stenography, Typing, Filing and Related Occupations** | | | | | | |
| Secretary | | 4 | 10 | 1 | | 15 |
| Typist | | 1 | 7 | 1 | | 9 |
| Correspondence Clerk | | 1 | | | | 1 |
| Personnel Clerk | | 1 | | | | 1 |
| File Clerk | | 1 | | | | 1 |
| Miscellaneous | | 15 | 14 | 6 | | 35[a] |
| **Computing and Account-Recording Occupations** | | | | | | |
| Bookkeepers | | 11 | 8 | 2 | 1 | 22 |
| Cashiers | 1 | | | 1 | | 2 |
| Tellers | 1 | 4 | 6 | 1 | | 12 |
| Bookkeeping-Machine Operators | 1 | 2 | 3 | | | 6 |
| Computing-Machine Operators | | | 1 | | | 1 |
| Miscellaneous | | 5 | 4 | 2 | | 11 |
| **Material and Production Recording Occupations** | | | | | | |
| Production Clerks | | | 1 | | | 1 |
| Miscellaneous | | 1 | | | | 1 |

TABLE I (continued)

| Job Classification | Highest Educational Level | | | | | Number of Workers Surveyed |
|---|---|---|---|---|---|---|
| | 9th-11th Grade | High School Graduate | Area Trade Vocational School or Business College | 1, 2, or 3 Years of College | College Graduate | |
| Information and Message Distribution Occupations | | | | | | |
| Messengers, Errand Boys, Office Boys and Girls | 1 | | | | | 1 |
| Post Office Clerks | | 3 | 1 | 1 | 1 | 6 |
| Mail Carriers | | 2 | | 1 | 1 | 4 |
| Telephone Operators | | 2 | 3 | | | 5 |
| Telegraph Operators | | | 1 | | | 1 |
| Receptionist and Information Clerks | 1 | 3 | 2 | | 1 | 7 |
| Miscellaneous Clerical Occupations | | | | | | |
| Collectors | | 3 | 1 | | | 4 |
| Miscellaneous | | 6 | 7 | 3 | | 16 |
| Totals | 5 | 65 | 69 | 19 | 4 | 162 |

[a]None of the 35 workers used shorthand.

training and education.

The majority of workers, 116, or 71.6 percent, were employed in stenography, typing, filing, and related positions and in computing and account-recording occupations. Over half of the workers surveyed, 92 or 56.8 percent, received training at a business college or area trade/vocational school, attended college, or graduated from college.

The survey also showed that of the 162 workers, 131 attended high school in Cocke County. Five of the workers surveyed were high school dropouts; three left school to get married and two left school to go to work.

In deciding upon the type of Vocational Office Education program to use in high schools to train students for office occupations, workers in the county need to be categorized by employment in stenographic, bookkeeping, or clerical jobs. Following is a breakdown of the workers surveyed into the three categories:

| Type of Work | Number of Workers |
|---|---|
| Stenographic | 15 |
| Bookkeeping | 52 |
| Clerical | 95 |
| Total | 162 |

According to data released by the Research Coordinating Unit at The University of Tennessee in spring of 1973, the total workers in Cocke County employed in these areas are as follows: stenographic, 145; bookkeeping, 114; and clerical, 605.

In the present study approximately half of the workers in Cocke County employed in clerical and related positions were surveyed. By doubling the number surveyed, the present study would show that a total of about 324 workers were employed in these positions in the county. However, this figure does not correspond with the data released by the Research Coordinating Unit, which gives a total of 864 workers employed in clerical and related positions. This discrepancy may partially be accounted for because the Research Coordinating survey figures included one-person firms or self-employed persons, and the present study included only those firms listed with the Tennessee Employment Security Office as employing one or more persons in clerical and related positions.

## II. JOB CLASSIFICATION OF WORKERS BY AGE

Table II shows the job classification of the workers by age. Of those employed in stenography, typing, filing, and related occupations, 42, or 67.7 percent, were 31 years or older. Only seven were in the age range of 23-30, and none of these workers were employed as secretaries.

In computing and account-recording occupations, workers from 18 to over 40 years of age were employed. However, 50 percent of those employed as bookkeepers were over 40 years of age.

None of the workers employed in information and message distribution occupations were under 23 years of age, and 11 of the 24 workers in this area were over 40 years of age.

Of those workers employed in miscellaneous clerical occupations, 4 of the 20 workers were under 23 years of age; and 10 were beteeen 23-30 years of age.

TABLE II

JOB CLASSIFICATION BY AGE OF WORKERS

| Job Classification | Age of Workers | | | | | Number of Workers Surveyed |
|---|---|---|---|---|---|---|
| | Under 18 | 18-22 | 23-30 | 31-40 | Over 40 | |
| Stenography, Typing, Filing and Related Occupations | | | | | | |
| Secretary | | | 7 | 3 | 5 | 15 |
| Typist | | 3 | 1 | 3 | 2 | 9 |
| Correspondence Clerk | | | | 1 | | 1 |
| Personnel Clerk | | | | | 1 | 1 |
| File Clerk | | | | | 1 | 1 |
| Miscellaneous | | 4 | 5 | 12 | 14 | 35 |
| Computing and Account-Recording Occupations | | | | | | |
| Bookkeepers | | 4 | 5 | 2 | 11 | 22 |
| Cashiers | | 1 | 1 | | | 2 |
| Tellers | 1 | 3 | 6 | 1 | 1 | 12 |
| Bookkeeping-Machine Operators | | 2 | 1 | 3 | | 6 |
| Computing-Machine Operators | | | 1 | | | 1 |
| Miscellaneous | | | 4 | 2 | 5 | 11 |
| Material and Production Recording Occupations | | | | | | |
| Production Clerks | | | | 1 | | 1 |
| Miscellaneous | | | | | 1 | 1 |
| Information and Message Distribution Occupations | | | | | | |
| Messengers, Errand Boys, Office Boys and Girls | | | | 1 | | 1 |

TABLE II (continued)

| Job Classification | Age of Workers | | | | | Number of Workers Surveyed |
|---|---|---|---|---|---|---|
| | Under 18 | 18-22 | 23-30 | 31-40 | Over 40 | |
| Post Office Clerks | | | 1 | 2 | 3 | 6 |
| Mail Carriers | | | 1 | 2 | 1 | 4 |
| Telephone Operators | | | 3 | 1 | 1 | 5 |
| Telegraph Operators | | | | | 1 | 1 |
| Receptionist and Information Clerks | | | 1 | 1 | 5 | 7 |
| Miscellaneous Clerical Occupations | | | | | | |
| Collectors | | | 2 | 1 | 1 | 4 |
| Miscellaneous | | 4 | 8 | 1 | 3 | 16 |
| Totals | 1 | 21 | 47 | 37 | 56 | 162 |

The majority of workers, 93, or 57.4 percent, were 31 years of age and older. Thirty-seven, or 22.8 percent, were in the age range of 31-40; and 56, 34.6 percent, were over 40 years of age. Only 22 workers surveyed were under 23 years of age. The survey also showed that 23 of the 162 workers were males and 139 were females.

## III. IMPROVEMENT OF JOB PERFORMANCE

From the checklist shown in Table III, the workers were asked to select the way in which they felt they could do better work on their present job. The greatest number of workers, 85, or 52.5 percent, responded that none of the ways listed in which they might improve their job performance applied to them. The workers may have felt that they had no room for job improvement or that they were doing their best. Of these 85, 51 had training and education beyond the high school level. Of the 77 who felt they could improve their job performance, 34, or 44.2 percent, desired additional education or training. Three of these 34 were not high school graduates, and 17 had completed their education upon graduation from high school. Seventeen workers felt they could do better at their present job if they had more self-confidence.

Table IV indicates courses the workers felt would be of value to them in their present positions. In most instances one to five persons desired a specific course; the courses desired were many and varied. Interest in an accounting/bookkeeping course was shown by 32 workers, 16 of whom had received no training beyond high school. Shorthand/

TABLE III

WAYS IN WHICH WORKERS FELT THEY COULD IMPROVE JOB PERFORMANCE BY EDUCATIONAL LEVEL

| Ways of Improvement | Highest Educational Level | | | | | Number of Workers Surveyed |
|---|---|---|---|---|---|---|
| | 9th-11th Grade | High School Graduate | Area Trade Vocational School or Business College | 1, 2, or 3 Years of College | College Graduate | |
| Enjoyed Work | | 1 | | 1 | | 2 |
| Could Work Better With Other People | | | | | | |
| Had More Self-confidence | | 7 | 7 | 3 | | 17 |
| Had Additional Education or Training | 3 | 17 | 10 | 4 | | 34 |
| Had Received More Specific On-the-job Training | | 2 | 4 | | 1 | 7 |
| Other | | 6 | 8 | 3 | | 17 |
| None Of The Above | 2 | 32 | 40 | 8 | 3 | 85 |
| Totals | 5 | 65 | 69 | 19 | 4 | 162 |

TABLE IV

ADDITIONAL EDUCATION AND TRAINING DESIRED BY WORKERS BY EDUCATIONAL LEVEL

| Courses | Highest Educational Level | | | | | Number of Workers Responding |
|---|---|---|---|---|---|---|
| | 9th-11th Grade | High School Graduate | Area Trade Vocational School or Business College | 1, 2, or 3 Years of College | College Graduate | |
| Accounting/Bookkeeping | | 16 | 9 | 6 | 1 | 32 |
| Business Law | | | 1 | 1 | | 2 |
| Business or Office Management | | 1 | | 1 | | 2 |
| Business Math | 1 | | 1 | 3 | | 5 |
| Business Psychology/Human Relations | | | 2 | 2 | | 4 |
| Computer Programming | | | 1 | | | 1 |
| Dental Hygiene | | | 1 | | | 1 |
| English | | 1 | 2 | 1 | | 4 |
| Filing | | 1 | | | | 1 |
| Financial Management | | 1 | 1 | | | 2 |
| Insurance | | 1 | | | | 1 |
| Key Punching | | 1 | | | | 1 |
| Medical Secretarial Course | | 1 | 1 | | | 2 |
| Money and Banking | 1 | 1 | 2 | 1 | | 5 |
| Office Administration | | 2 | | | | 2 |
| Office Machines | | 1 | | | | 1 |
| Secretarial Practice | | 3 | | | | 3 |
| Shorthand/Speedwriting | | 13 | 6 | 3 | | 22 |
| Speech | | 1 | | | | 1 |
| Speed Reading | | 1 | | | | 1 |
| Spelling | | | 1 | | | 1 |
| Typing | 1 | 8 | | | | 9 |
| Totals | 3 | 53 | 28 | 18 | 1 | |

speedwriting was requested by 22 workers, 13 of whom terminated their education upon graduation from high school. Nine of the workers were interested in a typewriting course; none of these workers had received post-high school training.

Of the 70 workers completing their education upon graduation from high school, 56, or 80 percent, desired additional education and training for job improvement. Forty-seven, or 51.1 percent, of the 92 workers having received post-high training and education desired additional courses for job improvement; however, some of these workers were interested in courses on a refresher basis.

## IV. NUMBER OF JOBS HELD

Since leaving school, the workers surveyed have held from one to eight jobs, as shown in Table V. Most workers, 97, or almost 60 percent, have held no more than four full-time jobs. Among the 65 workers who had completed their education upon graduation from high school, some of the workers had held from one to eight full-time jobs since leaving school.

## V. NUMBER OF YEARS AT PRESENT JOB

Table VI presents the number of years the workers surveyed have held their present position. Of the 162 workers surveyed, 53 had held their present job for over 10 years; 30, for 6-10 years; and 32, for less than 1 year. The workers tend to remain at a job, as 83, or 51.2

TABLE V

RANGE OF NUMBER OF JOBS HELD BY WORKERS
BY HIGHEST EDUCATIONAL LEVEL

| Highest Educational Level | Range of Number of Jobs Held | Number of Workers |
|---|---|---|
| 9th-11th Grade | 1 - 3 | 5 |
| High School Graduate | 1 - 8 | 65 |
| Business College or Area Trade Vocational School | 1 - 4 | 69 |
| 1, 2, or 3 Years of College | 1 - 4 | 19 |
| College Graduate | 2 - 3 | 4 |

TABLE VI

YEARS AT PRESENT POSITION BY WORKERS

| Number of Years Worked at Present Position | Number of Workers |
|---|---|
| Less than 1 Year | 32 |
| 1 - 2 Years | 15 |
| 2 - 3 Years | 14 |
| 4 - 5 Years | 18 |
| 6 - 10 Years | 30 |
| Over 10 Years | 53 |
| Total | 162 |

percent had held the same position for 6 years or more. When asked if they were satisfied with their present position, 157 of the workers responded "Yes," and 5 workers responded "No." Those who were dissatisfied gave the following reasons for not being employed in the type of work they preferred:

| Reason | Number |
|---|---|
| Doesn't offer enough benefits | 1 |
| Requires too much effort | 2 |
| Lack the proper experience | 1 |
| Other | 1 |
| Total | 5 |

Of the five, one worker wanted a secretarial position and one a bookkeeping position.

## VI. REASON FOR CHOOSING PRESENT JOB

From a checklist the workers were asked to rank the three major reasons for choosing their present job. Table VII shows the number of workers for whom each reason was the first, second, or third most important factor in their selecting their present job.

"Interested in this type of work" was checked by the majority, 78, of the workers as the primary factor in their choice of a job. None of the workers checked "Subjects studied in high school" as being the primary factor in their choice of their present position.

"Interested in this type of work" was checked the greatest number of times as being the first, second, or third most important factor in the workers' choice of their present job. "Work close to place of residence" was checked the second greatest number of times as being the

TABLE VII

MAJOR REASONS FOR CHOOSING PRESENT POSITION BY WORKERS

| Reason | 1st Choice | 2nd Choice | 3rd Choice | Total |
|---|---|---|---|---|
| Experience | 9 | 14 | 10 | 33 |
| Family Influence | 9 | 7 | 7 | 23 |
| First Job Available | 14 | 2 | 11 | 27 |
| Good Salary | 17 | 24 | 11 | 52 |
| Interested in This Type of Work | 78 | 26 | 17 | 121 |
| Opportunity for Advancement | 12 | 19 | 12 | 43 |
| Subjects Studied in High School | 0 | 15 | 11 | 26 |
| Work Close to Place of Residence | 11 | 31 | 37 | 79 |
| Other | 9 | 2 | 12 | 19 |

first, second, or third most important factor in the workers' choice of their present position.

## VII. SKILLS AND SPECIFIC OFFICE MACHINES USED BY PRESENT WORKERS

The skills possessed and used by the workers on their present job are as follows:

| Skills | Number |
|---|---|
| Shorthand | 15 |
| Typing | 114 |
| Key Punching | 4 |
| Use of Office Machines | 95 |

The shorthand speeds the workers indicated their job required ranged from 40-100 words per minute, with the majority indicating 100 words per minute as the required speed. Typing speeds required of the workers on their jobs ranged from 40-80 words per minute, with the majority indicating a speed of 50-60 words per minute as the required speed for their job. Of the workers surveyed, 36 indicated that their present job required previous work experience.

The office machines used by the present workers according to their occupation is presented in Table VIII. A total of 191 typewriters were in use, as some of the workers used more than one typewriter. Forty of the workers used a manual typewriter with pica type; 51, a manual typewriter with elite type; 58, an electric typewriter with pica type; and 42, an electric typewriter with elite type. The majority, or 84, of the typewriters were used by workers employed in stenography, typing, filing, and related occupations; and 63 were used by workers employed in computing and account-recording occupations.

TABLE VIII

OFFICE MACHINES USED BY PRESENT WORKERS BY JOB CLASSIFICATION

| Job Classification | Office Machines | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Electric Typewriter Pica | Electric Typewriter Elite | Manual Typewriter Pica | Manual Typewriter Elite | Electronic Calculator | Rotary Calculator | Fluid Duplicator | Multilith Duplicator | Stencil Duplicator | Full Key-board Adding | 10-Key Adding | Transcriber | Other |
| **Stenography, Typing, Filing, and Related Occupations** | | | | | | | | | | | | | |
| Secretary | 6 | 6 | 1 | 2 | 7 | 2 | 3 | 3 | 3 | 2 | 7 | 3 | 4 |
| Typists | | 4 | 1 | 1 | 2 | | 2 | 1 | 1 | 1 | 2 | 1 | 6 |
| Correspondence Clerks | | | 1 | 1 | | | 1 | | | | | | |
| Personnel Clerks | | | 1 | 1 | | 1 | 1 | | | 1 | 1 | | |
| File Clerks | | | | 1 | | | | | | | | | |
| Miscellaneous | 17 | 15 | 14 | 12 | 9 | 4 | 8 | 3 | 9 | 14 | 23 | 2 | 11 |
| **Computing and Account-Recording Occupations** | | | | | | | | | | | | | |
| Bookkeeper | 4 | 5 | 11 | 5 | 6 | 4 | 4 | 3 | 2 | 10 | 15 | 1 | 5 |
| Cashier | | | | 1 | 2 | | | | | 1 | | | |
| Teller | 3 | 4 | 7 | 4 | 4 | | | | | 7 | 4 | | 5 |
| Bookkeeping-Machine Operator | | 2 | 3 | 3 | 4 | 4 | 3 | | | | 6 | 1 | 4 |
| Computing-Machine Operator | | | | 1 | | | | | | 1 | | | 1 |
| Miscellaneous | 2 | 4 | 3 | 1 | 6 | | 3 | | 1 | 5 | 5 | | 4 |

TABLE VIII (continued)

| Job Classification | Office Machines | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Electric Typewriter Pica | Electric Typewriter Elite | Manual Typewriter Pica | Manual Typewriter Elite | Electronic Calculator | Rotary Calculator | Fluid Duplicator | Multilith Duplicator | Stencil Duplicator | Full Key-board Adding | 10-Key Adding | Transcriber | Other |
| Material and Production Recording Occupations | | | | | | | | | | | | | |
| Production Clerks | | 1 | | | | | | | | | 1 | | |
| Miscellaneous | | | | | | | | | | | 1 | | |
| Information and Message Distribution Occupations | | | | | | | | | | | | | |
| Messengers, Errand Boys, Office Boys and Girls | 1 | | 1 | | 1 | | | | | 1 | 1 | | |
| Post Office Clerks | | | 1 | 2 | | 1 | | | | 1 | 1 | | 1 |
| Mail Carriers | | | | | | | | | | | 1 | | |
| Telephone Operators | | 1 | | 3 | | | | | | | 1 | | 4 |
| Telegraph Operators | | | 1 | | | | | | | | | | 1 |
| Receptionists and Information Clerks | | 2 | 4 | | | | 1 | | | 2 | 3 | | |
| Miscellaneous Clerical Occupations | | | | | | | | | | | | | |
| Collectors | 2 | 1 | 2 | 1 | 2 | 1 | | | | 2 | 5 | | |
| Miscellaneous | 5 | 6 | 7 | 3 | 8 | 3 | 2 | | | 5 | 5 | | 8 |
| Totals | 40 | 51 | 58 | 42 | 51 | 20 | 28 | 10 | 16 | 53 | 80 | 8 | 54 |

A total of 133 adding machines were used by the workers. Eighty, or 60.2 percent, of the adding machines used were ten-key and 53, or 39.8 percent, were full-keyboard. At the time the survey was conducted, 71 calculators were being used--51, or 71.8 percent, electronic and 20, or 28.8 percent, rotary. Of the three methods of duplication, fluid duplication was used by 28 workers; stencil duplication, by 10 workers; and multileth duplication, by 10 workers. Fifty-four workers indicated they used machines other than those listed. Those most frequently mentioned were bookkeeping machine, copying machine, and the switchboard or PBX.

## VIII. ADVICE TO FUTURE STUDENTS IN PREPARING FOR AN OCCUPATION

The workers were asked to select from a list and rank the three major factors they would advise students to consider in preparing for an occupation. Table IX shows the number of workers selecting each factor as the first, second, or third most important factor which they felt students should consider when preparing for an occupation. Table IX also shows the total number of responses--first, second, and third--to each factor listed.

"Be sure to choose the type of work they believe they would enjoy rather than letting someone else influence them" was considered the most important factor students should consider by 88, or 55.7 percent, of the workers surveyed. "Work harder at trying to learn while in school" was considered the most important factor students should consider in preparing for an occupation by 38, or 24.1 percent, of the workers.

TABLE IX

ADVICE FROM PRESENT WORKERS TO HIGH SCHOOL STUDENTS WHO ARE PREPARING FOR AN OCCUPATION

| Advice | 1st Choice | 2nd Choice | 3rd Choice | Total |
|---|---|---|---|---|
| Be sure to choose type of work they believe they would enjoy rather than letting someone else influence them. | 88 | 39 | 19 | 146 |
| Decide on an occupation early in high school and plan their education for that type of work. | 25 | 43 | 22 | 90 |
| Plan to enter a field that has a demand for workers | 2 | 16 | 16 | 34 |
| Read about and see particular occupations in action. | 3 | 9 | 23 | 35 |
| Read ads so they will know the demands for specific workers in the area. | 2 | 3 | 1 | 6 |
| Take academic and general education classes instead of vocational classes. | 0 | 3 | 4 | 7 |
| Take some vocational classes rather than all academic and general. | 0 | 19 | 27 | 46 |
| Work harder at trying to learn while in school. | 38 | 25 | 38 | 101 |

Checked the greatest number of items as being the first, second, or third most important factor was "Be sure to choose the type of work they believe they would enjoy rather than letting someone else influence them." "Work harder at trying to learn while in school" was checked the second greatest number of times as being the first, second, or third most important factor for students to consider in preparing for an occupation.

## IX. ESTIMATED JOB OPENINGS

The workers in the present study were asked to estimate the availability of jobs within the next two to three years in their specific occupations with their company or firm, and this information is presented in Table X. In stenography, typing, filing, and related occupations, the projected employment was for 29 workers; for those in computing and account-recording occupations, 37; for information and message distribution occupations, 17; and miscellaneous clerical, 13. The total projected employment by present workers in clerical and related positions totaled 102; whereas, the projected employment by employers of these workers when contacted by the investigator was for 51 workers.

TABLE X

PROJECTED EMPLOYMENT IN CLERICAL AND RELATED POSITIONS
BY PRESENT WORKERS

| | Number of Workers | Projected Employment |
|---|---|---|
| Stenography, Typing, Filing and Related Occupations | | |
| Secretary | 15 | 6 |
| Typist | 9 | 3 |
| Correspondence Clerk | 1 | 6 |
| Personnel Clerk | 1 | 0 |
| File Clerk | 1 | 0 |
| Miscellaneous | 35 | 20 |
| Computing and Account-Recording Occupations | | |
| Bookkeepers | 22 | 4 |
| Cashiers | 2 | 2 |
| Tellers | 12 | 25 |
| Bookkeeping Machine Operators | 6 | 0 |
| Computing-Machine Operators | 1 | 3 |
| Miscellaneous | 11 | 3 |
| Material and Production Recording Occupations | | |
| Production Clerks | 1 | 0 |
| Miscellaneous | 1 | 0 |
| Information and Message Distribution Occupations | | |
| Messengers, Errand Boys, Office Boys and Girls | 1 | 1 |
| Post Office Clerks | 6 | 5 |
| Mail Carriers | 4 | 1 |
| Telephone Operators | 5 | 1 |
| Telegraph Operators | 1 | 0 |
| Receptionists and Information Clerks | 7 | 9 |
| Miscellaneous Clerical Occupations | | |
| Collectors | 4 | 5 |
| Miscellaneous | 16 | 8 |
| Totals | 162 | 102 |

# CHAPTER IV

## FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purposes of this study were (1) to determine the number and the types of clerical and related positions held by workers in Cocke County, Tennessee; (2) to determine the educational level and skills generally needed by workers in these positions; (3) to determine additional education and training needed by the present workers; and (4) to determine the projected employment opportunities in clerical and related positions in the county.

Survey forms were mailed to 71 establishments included in the survey. With the help of the employers of the workers, the forms were distributed to workers employed in clerical and related positions as identified in the Dictionary of Occupational Titles. One hundred eighty-two of the forms distributed were returned, and 20 were not used for this study because they had been completed by workers in other areas of work.

## I. FINDINGS

The findings of the present office workers surveyed are summarized as follows:

1. Of the 162 workers surveyed, 62 were employed in stenography, typing, filing, and related occupations; 54 were employed in computing

and account-recording occupations; 2 were employed in material and production recording occupations; 24 were employed in information and message distribution occupations, and 20 were employed in miscellaneous clerical occupations (Table I, page 24).

2. The majority, 92, or 56.8 percent, of the workers had post-high school education and training; and 69 of these had attended business college or an area trade/vocational school (Table I, page 24).

3. Of the workers surveyed, 15 were employed in stenographic positions; 52, in bookkeeping positions, and 95, in clerical positions (Text , page 26).

4. Of the workers surveyed, 56, or 34.6 percent, were over 40 years of age; and 93, or 57.4 percent, were 31 years of age and older. Only 22 of the workers were under 23 years of age (Table II, page 28).

5. Many workers, 85, or 52.5 percent, did not select any of the ways listed in which they might improve at their present position; fifty-one of the 85 had received training and education beyond high school. Of the 77 who felt they could improve their performance, 34, or 44.2 percent, desired additional education and training; and 17 workers felt they could do better if they had more self-confidence (Table III, page 31).

6. The workers desired additional courses which they felt would be of value to them on their present job. Accounting/bookkeeping was desired by 32 workers, 16 of whom had received no training beyond the high school level. Shorthand/speedwriting was requested by 22 workers, 13 of whom completed their education upon graduation from high school.

Typewriting was requested by nine workers, none of whom had received post-high school training (Table IV, page 32).

7. The majority, 97, or almost 60 percent, of the workers had held no more than four full-time jobs since leaving school. Some workers among the 65 terminating their education upon graduation from high school had held as many as eight full-time jobs since leaving school (Table V, page 34).

8. Of the 162 workers surveyed, 53 had held their present job for over ten years; and 83, or 51.2 percent, had held their present job for six years and over (Table VI, page 35).

9. One hundred fifty-seven of the 162 workers surveyed were satisfied with their present position (Text, page 36).

10. Having the least influence upon the workers' choice of job were the subjects studied in high school. Seventy-eight, or 45 percent, of the workers chose their present job because they were interested in the type of work they were doing (Table VII, page 37).

11. The majority, 114, or 70.4 percent, of the workers used typing on their present job; and 95, or 58.6 percent, of the workers used office machines. Most jobs required a typing speed of 50-60 words per minute (Text, page 38).

12. One hundred ninety-one typewriters were being used by the workers, and a manual pica, manual elite, electric pica, and electric elite were each used by approximately the same number of workers (Table VIII, page 39).

13. Of the 133 adding machines being used, 80, or 60.2 percent, were ten-key. Seventy-one calculators were being used; and 51, or 71.8 percent, were electronic calculators. A total of 48 workers used one of the three methods of duplication, and 28 of these workers used fluid duplication (Table VIII, page 39).

14. Of the workers surveyed, 88, or 55.7 percent, felt that the most important factor students should consider in choosing an occupation is to choose the type of work they feel they would enjoy (Table IX, page 42).

15. The projected employment by the present workers for openings in their type of work and with their company or firm in the next two or three years totaled 102; the projection for openings for additional workers by the employers totaled 51 (Table X, page 44). Since almost one-half of the workers in clerical and related positions were surveyed, a more accurate projection can be made by doubling the figures. Therefore, based upon the employees' projection, approximately 204 positions would be available for workers in clerical and related positions in the next two to three years; and based upon the employers' projection, 102 positions would be available.

## II. CONCLUSIONS

These conclusions are based upon the findings of this study:

1. Workers in Cocke County, Tennessee, are represented in each of the main job classifications under clerical and related positions.

2. When the jobs in which the workers are employed are categorized into either stenographic, bookkeeping, or clerical work, more workers are employed in clerical positions than bookkeeping or stenographic.

3. Over half of the workers have post-high school training and education.

4. Approximately one-third of the workers surveyed are over 40 years of age.

5. Some of the workers desire additional education and training for job improvement. The courses that would be of most value to the workers in their present positions are accounting/bookkeeping, shorthand/speedwriting, and typewriting.

6. The workers show a tendency to remain with their job, and almost every workers surveyed is satisfied in his present position.

7. Almost half of the workers are employed in their present position due to interest in the type of work they are doing, and high school preparation has little influence upon their choice of a job.

8. Jobs held by over half of the workers requires skill in typewriting and the use of office machines.

9. The typewriter, ten-key adding machine, and electronic calculator are the most frequently used office machines.

10. According to the workers and employers, positions are expected to be available in the near future for workers in clerical and related positions.

# III. RECOMMENDATIONS

Based upon the findings and conclusions of this study, the following recommendations are made:

1. Since the majority of workers surveyed received training beyond high school, a Vocational Office Education program should be included in the curriculum for the high schools of Cocke County, Tennessee, to train students for employment in office occupations upon graduation from high school.

2. Although some workers were employed in the clerical category than in the stenographic or bookkeeping categories, a Stenographic Vocational Office Education program which would prepare students for both stenographic and clerical positions should be selected because such a program would be more comprehensive.

3. The following office machines should be used in the training of students for office occupations through a Vocational Office Education clerical program in the high schools of Cocke County: manual typewriters--pica and elite, electric typewriters--pica and elite, electronic calculators, fluid duplicators, and ten-key adding machines.

4. Since more workers desired further education and training, some provision should be made for evening courses, especially accounting/bookkeeping and shorthand/speedwriting.

5. The results of this study should be made available to the Cocke County Board of Education and Superintendent of Schools.

6. Since the subjects studied in high school had little influence upon the worker's selection of an office job, an advisory committee for vocational education for the county should be appointed to aid in maintaining a curriculum relevant to the needs of the students.

## IV. RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations are made for further study:

1. A survey of high school students in Cocke County, Tennessee, be conducted to determine students' interest in enrolling in a Vocational Office Education program.

2. A survey of office workers be conducted periodically to determine the occupational trends and needs of the community in order to better prepare high school students for employment in office occupations upon graduation from high school.

3. A survey to employers of office workers in Cocke County, Tennessee, be conducted to determine if a cooperative Vocational Office Education program would be feasible for the schools.

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# APPENDIX

TO: Employers of Workers in Clerical and Related Positions

FROM: Mildred A. Huff

DATE: April 16, 1973

As you may have read in the newspaper last week, I am conducting a survey of workers employed in clerical and related positions in Cocke County. The results will be used to determine if there is a need in Cocke County for a Vocational Office Education program in the secondary schools, or possibly in night school. Mrs. Beth Freeman, Superintendent of Schools, has given her approval for such a survey. She stated that, when the county applies to the federal government for funds for a vocational school, each curriculum item will need to be justified. My study will attempt to justify the need for a program for the training of office workers--either in a vocational school or the present high schools--and will, therefore, result in a savings to the county in time and money.

Please ask each of your employees who are classified in any job listed on the attached page to complete and return the questionnaire to me in the enclosed stamped, addressed envelope by Friday, April 20. A copy of the completed study will be presented to the Cocke County School Board, and the conclusions and recommendations of the study will be published in the local newspapers.

Your cooperation will be most appreciated.

CLERICAL AND RELATED POSITIONS

Stenography, Typing, Filing

Secretaries
Stenographers
Typists
Correspondence clerks
Personnel clerks
File clerks
Duplicating-machine operators
Miscellaneous office machine operators
Miscellaneous

Computing and Account-Recording

Bookkeepers
Cashiers
Tellers
Automatic data-processing-equipment operators
Billing-machine operators
Bookkeeping-machine operators
Computing-machine operators
Account-recording-machine operators
Miscellaneous

Material and Production Recording Occupations

Production clerks
Shipping and receiving clerks
Stock clerks and related occupations
Weighers
Miscellaneous

Information and Message Distribution Occupations

Messengers, errand boys, and office boys and girls
Mail clerks
Post office clerks
Mail carriers
Mail-preparing- and mail-handling-machine operators
Telephone operators
Telegraph operators
Receptionists and information clerks
Miscellaneous

Miscellaneous Clerical Occupations

Collectors
Adjusters
Hotel clerks
Direct service clerks
Miscellaneous

# OCCUPATIONAL SURVEY FORM

INSTRUCTIONS: Please complete all of the following statements in the appropriate manner.

1. My job title is _____.

2. What are the major tasks of your job?

_____ _____

_____ _____

_____ _____

3. How long have you worked at your present job?

___less than 1 year
___1-2 years
___2-3 years
___4-5 years
___6-10 years
___over 10 years

4. What other jobs have you had which helped prepare you for the job you now have?

_____ _____

_____ _____

5. What office machines do you use on your present job?

___electric typewriter
___pica
___elite
___manual typewriter
___pica
___elite
___electronic calculator
___rotary calculator
___fluid duplicator
___multileth duplicator
___stencil duplicator
___full-keyboard adding machine
___ten-key adding machine
___transcribing machine
___other (specify:_____)

6. Are you doing the type of work you want to do? ___yes ___no

IF YOUR ANSWER TO NO. 6 IS YES, SKIP TO NO. 10.

7. What job do you wish you had? _____

8. What courses would you have needed in high school to prepare you for the job you prefer?

_____ _____

_____ _____

_____ _____

9. Why are you not doing the type of work you would like to do?

___It doesn't offer enough benefits.
___I lack the education and training for that type of work.
___The job doesn't offer enough social prestige.
___The job requires too much effort.
___I lack the experience to do that kind of work.
___Other (specify:_____).

10. Why did you choose your present job? (Rank 3 of the following answers in order of importance. Place a No. 1 by the answer you consider most important, No. 2 by the next most important, and No. 3 by the third most important)

___experience
___family influence
___first job available
___good salary
___interested in this type of work
___opportunity for advancement
___subjects studied in high school
___work close to place of residence
___other (specify:_____)

11. How many full-time jobs have you had since leaving school? _____

12. Did your present job require previous work experience? ___yes ___no

13. What skills does your present job require?

Shorthand ___words per minute
Typing ___words per minute
___Key punching
___Use of office machines
___Other (specify:_____)

14. Place a check by the answer indicating the highest level of education you have completed.

___6th grade or less
___7-8th grade
___9-11th grade
___attended or completed course of study at business college or area/ trade vocational school

___high school graduate

___1, 2, or 3 years of college
___college graduate
___other (specify:_____)

15. If you are NOT a high school graduate, state your reason or reasons for not completing high school. _____

_____

16. Did you attend high school in Cocke County? ___yes ___no

17. If made available to you, what courses that would be of value to you on your present job would you be interested in taking?

_____ _____

_____ _____

18. I believe that I could do better work at my present job it I:

___enjoyed my work.
___could work better with other people.
___had more confidence in myself.
___had additional education or training.
___had received more specific training on the job.
___other (specify:_____).
___none of the above.

19. My advice to high school students in choosing an occupation is to: (Rank 3 of the following statements in order of importance. Place a No. 1 by the statement you consider most important, No. 2 by the next most important, and No. 3 by the third most important)

___be sure to pick the type of work they believe they would enjoy rather than letting someone else influence them.
___decide on an occupation early in high school and plan their education for that type of job.
___plan to enter a field that has a demand for workers.
___read about and see particular occupations in action.
___read ads so that they will know the demands for specific workers in the area.
___take academic and general education classes instead of vocational classes.
___take some vocational classes rather than all academic and general classes.
___work harder at trying to learn while in school.
___other (specify:_____).

20. How many openings do you believe there will be in your firm for the type of work you are doing in the next 2 or 3 years? _____

21. I am a: ___female ___male.

22. My age is:

___under 18
___18-22
___23-30
___31-40
___41 or over

CODING GUIDE SHEET FOR COCKE COUNTY SURVEY OF WORKERS

IN CLERICAL AND RELATED POSITIONS

| Card Column | No. | Explanation |
|---|---|---|
| 1-3 | | Number of Questionnaire |
| 4-6 | | Q-1, Job Title<br>201 through 249 Clerical and Related Positions (Classification by Dictionary of Occupational Titles)<br>20 Stenography, Typing, Filing, and Related Occupations |
| | 201 | Secretaries |
| | 202 | Stenographers |
| | 203 | Typists |
| | 204 | Correspondence clerks |
| | 205 | Personnel clerks |
| | 206 | File clerks |
| | 207 | Duplicating-machine operators |
| | 208 | Miscellaneous office machine operators |
| | 209 | Miscellaneous |
| | | 21 Computing and Account-Recording Occupations |
| | 210 | Bookkeepers |
| | 211 | Cashiers |
| | 212 | Tellers |
| | 213 | Automatic data-processing-equipment operators |
| | 214 | Billing-machine operators |
| | 215 | Bookkeeping-machine operators |
| | 216 | Computing-machine operators |
| | 217 | Account-recording-machine operators |
| | 219 | Miscellaneous |
| | | 22 Material and Production Recording Occupations |
| | 221 | Production clerks |
| | 222 | Shipping and receiving clerks |
| | 223 | Stock clerks and related occupations |
| | 224 | Weighers |
| | 229 | Miscellaneous |

| Card Column | No. | Explanation |
|---|---|---|
| | | 23 Information and Message Distribution Occupations |
| | 230 | Messengers, errand boys, and office boys and girls |
| | 231 | Mail clerks |
| | 232 | Post office clerks |
| | 233 | Mail carriers |
| | 234 | Mail-preparing- and mail-handling-machine operators |
| | 235 | Telephone operators |
| | 236 | Telegraph operators |
| | 237 | Receptionists and information clerks |
| | 239 | Miscellaneous |
| | | 24 Miscellaneous Clerical Occupations |
| | 240 | Collectors |
| | 241 | Adjusters |
| | 242 | Hotel clerks |
| | 243 | Direct service clerks |
| | 249 | Miscellaneous |
| 7 | | Q-3, Number Years Worked at Present Job |
| | 1 | Less than 1 year |
| | 2 | 1-2 years |
| | 3 | 2-3 years |
| | 4 | 4-5 years |
| | 5 | 6-10 years |
| | 6 | Over 10 years |
| 8-16 | | Q-4, Other Jobs Held Which Helped Prepare Worker |
| | 201 | Secretary |
| | 202 | Stenographer |
| | 203 | Typist |
| | 206 | File clerk |
| | 209 | Miscellaneous |
| | 210 | Bookkeeper |
| | 211 | Cashier |
| | 212 | Teller |
| | 213 | Automatic-data processing operator |
| | 215 | Bookkeeping-machine operator |

| Card Column | No. | Explanation |
|---|---|---|
| | 219 | Miscellaneous Computing and account-recording occupations |
| | 222 | Shipping and receiving clerk |
| | 231 | Mail clerk |
| | 232 | Post office clerk |
| | 233 | Mail carrier |
| | 235 | Telephone operator |
| | 237 | Receptionist and information clerk |
| | 240 | Collector |
| | 242 | Hotel clerks |
| | 243 | Direct service clerk |
| | 244 | Miscellaneous clerical occupations |
| 17-29 | | Q-5, Office Machines Used on Present Job (No. 1 = Yes, a blank = No) |
| 17 | | Electric typewriter - pica |
| 18 | | Electric typewriter - elite |
| 19 | | Manual typewriter - pica |
| 20 | | Manual typewriter - elite |
| 21 | | Electronic calculator |
| 22 | | Rotary calculator |
| 23 | | Fluid duplicator |
| 24 | | Multileth duplicator |
| 25 | | Stencil duplicator |
| 26 | | Full-keyboard adding machine |
| 27 | | Ten-key adding machine |
| 28 | | Transcribing machine |
| 29 | | Other |
| 30 | | Q-6, Doing the Type of Work Desired |
| | 1 | Yes |
| | 2 | No |
| 31-33 | | Q-7, Occupation Preferred by Worker |
| | 094 | Teacher of handicapped |
| | 074 | Pharmacist |
| | 201 | Secretary |
| | 210 | Bookkeeper |

| Card Column | No. | Explanation |
|---|---|---|
| 34 | | Q-9, Reason not employed in type of work desired |
| | 1 | Doesn't offer enough benefits |
| | 2 | Lack education and training |
| | 3 | Doesn't offer enough social prestige |
| | 4 | Requires too much effort |
| | 5 | Lack experience |
| | 6 | Other |
| 35-43 | | Q-10, Reasons for choosing present job (No. 1 indicates major reason, No. 2 the next most important reason, and No. 3 the third most important) |
| 35 | | Experience |
| 36 | | Family influence |
| 37 | | First job available |
| 38 | | Good salary |
| 39 | | Interested in this type of work |
| 40 | | Opportunity for advancement |
| 41 | | Subjects studied in high school |
| 42 | | Work close to place of residence |
| 43 | | Other |
| 44 | | Q-11, Number of Full-time Jobs Held Since Leaving School |
| 45 | | Q-12, Present Job Required Previous Work Experience |
| | 1 | Yes |
| | 2 | No |
| 46-50 | | Q-13, Skills Needed for Present Job |
| | 1 | Shorthand |
| | 2 | Typing |
| | 3 | Key punching |
| | 4 | Use of office machines |
| | 5 | Other |

| Card Column | No. | Explanation |
|---|---|---|
| 51 | | Q-14, Highest Level of Education Completed |
| | 1 | 6th grade or less |
| | 2 | 7-8th grade |
| | 3 | 9-11th grade |
| | 4 | High school graduate |
| | 5 | Attended or completed course of study at area/ trade vocational school or business college |
| | 6 | 1, 2, or 3 years of college |
| | 7 | College graduate |
| | 8 | Other |
| 52 | | Q-15, Reason for not Completing High School |
| | 1 | Got married |
| | 2 | Went to work |
| 53 | | Q-16, Attended School in Cocke County |
| | 1 | Yes |
| | 2 | No |
| 54-59 | | Q-17, Courses That Would be of Value to Worker on Present Job |
| | 01 | Accounting/Bookkeeping |
| | 02 | Business Law |
| | 03 | Business Management |
| | 04 | Business Math |
| | 05 | Business Psychology/Human Relations |
| | 06 | Computer Programming |
| | 07 | Dental Hygiene |
| | 08 | English |
| | 09 | Filing |
| | 10 | Financial Management |
| | 11 | Insurance |
| | 12 | Key Punching |
| | 13 | Medical Secretarial Terms |
| | 14 | Money and Banking |
| | 15 | Office Administration |
| | 16 | Office Machines |
| | 17 | Secretarial Practice |
| | 18 | Shorthand/Speedwriting |
| | 19 | Speech |
| | 20 | Speed Reading |

| Card Column | No. | Explanation |
|---|---|---|
| | 21 | Spelling |
| | 22 | Typing |
| 60 | | Q-18, Could Do Better Work at Present Job if: |
| | 1 | Enjoyed work |
| | 2 | Could work better with other people |
| | 3 | Had more confidence in myself |
| | 4 | Had additional education or training |
| | 5 | Had received more specific training on the job |
| | 6 | Other |
| | 7 | None of the above |
| 61-69 | | Q-19, Advice to high school students in choosing an Occupation (No. 1 indicates most important, No. 2 next most important, and No. 3 the third) |
| | 1 | Be sure to pick the type of work they believe they would enjoy rather than letting someone else influence them. |
| | 2 | Decide on an occupation early in high school and plan their education for that type of job. |
| | 3 | Plan to enter a field that has a demand for workers. |
| | 4 | Read about and see particular occupations in action. |
| | 5 | Read ads so that they will know the demands for specific workers in the area. |
| | 6 | Take academic and general education classes instead of vocational classes. |
| | 7 | Take some vocational classes rather than all academic and general classes |
| | 8 | Work harder at trying to learn while in school. |
| | 9 | Other |
| 70-71 | | Q-20, Number of Openings in your Firm for the Type of Work You Are Doing in the next 2 or 3 Years |
| | 1 | Female |
| | 2 | Male |

| Card Column | No. | Explanation |
|---|---|---|
| 73 | | Q-22, Age of the Worker |
| | 1 | Under 18 |
| | 2 | 18-22 |
| | 3 | 23-30 |
| | 4 | 31-40 |
| | 5 | 41 or over |

# VITA

Mildred Ann Huff was born in Greene County, Tennessee, on March 26, 1946. Her home is in Cocke County, Tennessee, where she attended Parrottsville Elementary School and was graduated from Parrottsville High School in 1964. She received a Bachelor of Science degree in Business Education from The University of Tennessee, Knoxville, in March, 1969.

She has had secretarial experience and has taught at Knoxville Business College, Jefferson City Elementary School, and at Parrottsville High School.

In August, 1973, Miss Huff received a Master of Science degree in Business Education from The University of Tennessee, Knoxville. She is a member of Delta Pi Epsilon.