

EFFECTS OF HIGH SCHOOL VOCATIONAL
OFFICE TRAINING UPON SUBSEQUENT
BEGINNING CAREER PATTERNS

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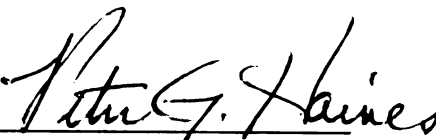


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ABSTRACT

EFFECTS OF HIGH SCHOOL VOCATIONAL OFFICE TRAINING UPON SUBSEQUENT BEGINNING CAREER PATTERNS

by Paul Vaughn Braden

This study was concerned with determining the effect of varying amounts and types of vocational office training on the subsequent beginning career patterns of female high school graduates. The study was limited to female high school graduates who entered the office field within six months after graduation without any additional formal training.

Data Collection and Analysis

Questionnaires were sent to all three hundred sixty-six 1956 female high school graduates from the public and parochial high schools of Lansing, Michigan. A 99 per cent response was obtained providing preliminary work-history data. Of the one hundred thirty-five graduates who entered the office field and who resided in Michigan in 1962, one hundred twenty were interviewed in order to obtain detailed work-history data for the period of time June, 1956 to June, 1962. Six graduates submitted data by mail because of extreme difficulty in arranging appointments, thereby bringing the total number in the sample to one hundred twenty-six.

The one hundred twenty-six graduates in the sample were subsequently divided into four Groups according to the

amount of vocational office training received in high school. In order to discern their beginning career patterns, a scale ranking office jobs according to average beginning salary was developed to serve as a model for facilitating the detection of any movement within and in and out of the office field during the six year period studied.

Findings and Conclusions

1. There was a statistically significant difference between the four Groups in their labor market behavior after graduation, viz., those with more vocational office training felt prepared for work, obtained high level entering and ending jobs in the office field and were identified as having experienced stable beginning career patterns. Consequently, those graduates with more vocational office training were able to avoid the dead-end and unstable beginning career patterns characteristic of those graduates with less vocational office training.
2. There is no substitute for high school vocational office training when entering the office field after graduation without additional formal training. The overwhelming majority of the graduates in this study stated that if they were to return to high school, they would take vocational office training.
3. The findings in this study indicated that vocational office training obtained in high school is a major determinant of beginning career patterns for female high

school graduates who enter the office field without additional training. Therefore, professional educators, knowing the amount of vocational office training or preparation, can make meaningful statements concerning the type of beginning career pattern which a given graduate would normally be expected to experience upon entering the labor market.

4. The four beginning career patterns which emerged from the analysis of the labor market behavior of the graduates in this sample, viz., stable, dead-end, unstable and temporary worker, add significantly to previous findings about beginning career development of the office worker. Instead of references being made to particular types of jobs, job duties, mobility patterns, etc., in the analysis and prediction of career development, the conceptual scheme presented in this study lends itself to the interpretation of labor market behavior in the office field which summarizes the interrelationships of these variables.

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By

Paul Vaughn Braden

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CHAPTER I

THE PROBLEM

The problem investigated by this study was that of measuring the vocational office training of female high school graduates as a determinant in the development of subsequent beginning career patterns. The investigation was a sub-study of a state-wide investigation of vocational education in the State of Michigan.¹ Specifically, this study was concerned with determining the effect² of varying amounts and types of vocational office training on the subsequent beginning career patterns of female high school graduates who entered the office field within six months following graduation with no additional training. The following sub-problems were investigated in this study:

1. What effect does the amount and type of vocational office training have on entering and ending jobs of the graduates?

¹The Michigan State Board of Control for Vocational Education, in 1958, authorized a comprehensive evaluation of vocational education in Michigan. The primary purpose of the study was to make evaluative judgments of the programs in operation as a means of aiding educators in planning for improved vocational education programs in the future. The Director of the Project was Dr. Lawrence Borosage, Professor, Department of Industrial Education, Michigan State University.

²Effect was used here instead of relationship because of the attempt to account for other determinants of beginning career patterns other than specific vocational training.

2. What effect does the amount and type of vocational office training have on job satisfaction, viz., which graduates felt prepared for work after graduation and which graduates liked their first job?
3. What effect does the amount and type of vocational office training have on the beginning career patterns of the graduates, viz., were there distinct beginning career patterns developed by the graduates?
4. Can distinct beginning career patterns be plotted or discerned?
5. What variables other than the amount and type of vocational office training seemed to be influencing the beginning career patterns of the graduates, e.g., the amount and type of initial work experience before graduation and the educational and vocational plans of the graduates as given in their high school records?

Purpose of the Study

The purpose of the study was threefold: (1) to provide information to those concerned with the education of high school females pertaining to the effects of vocational office training on the development of subsequent beginning career patterns, (2) to utilize sociological "models" that illustrate career patterns in the analysis of the beginning career patterns of female high school graduates who enter the office field, and (3) to utilize these findings as a part of a larger study of vocational education in Michigan which will help determine the direction of vocational education in the immediate future and in the years beyond.

Need for the Study

The need for this study is apparent when consideration is given to the following facts:

1. There is an increased demand for office workers.
2. There is a need for an evaluation to determine if the vocational office training given at the high school level is sufficient for obtaining some measure of success in the office field after graduation. This evaluation must be completed in light of recent social and economic change.
3. There is a need for more meaningful analytical tools by which to evaluate the effectiveness of vocational office training on the subsequent labor market behavior of high school graduates.

A brief discussion of each of the above facts follows:

The need for office workers.--The demand for office workers continues to grow in spite of new equipment and methods designed to handle a rising volume of work. According to the 1959 edition of the Occupational Outlook Handbook:

In 1910, only 1 in 20 American workers was engaged in clerical work. By 1940, the proportion of clerical workers had risen to 1 in 10 and, by 1950, to 1 in 8 employed workers.¹

According to the 1961 edition of the Occupational Outlook Handbook, there were nearly ten million people who did clerical or some closely related kind of work in 1960.² More important, the Handbook states that hundreds of thousands of openings will occur in clerical and related occupations each year during the 1960's. The Handbook shows the particular importance of clerical work for women by stating that "two-thirds of all clerical workers are women, and almost

¹U. S., Bureau of Labor Statistics, Occupational Outlook Handbook (1959), p. 226.

²U. S., Bureau of Labor Statistics, Occupational Outlook Handbook (1961), p. 274.

one-third of all women who have jobs of any kind do clerical work."¹

The female high school graduate is especially likely to enter the clerical field. According to a study by the National Manpower Council in their book Womanpower, published in 1957, the concentration in relatively few fields is characteristic of the initial employment of women. The Council states that:

. . . about 45 per cent of all girls, compared to about 30 per cent of all boys, terminate their formal education with high school graduation. Over two-fifths of these girls have followed clerical or commercial curricula and about three-fifths of those who enter employment secure clerical jobs.²

The need for evaluation of the effectiveness of vocational office training in light of recent social and economic changes.--The responsibility of keeping pace with current social, economic, and technical trends is shared by high school administrators, business education teachers, businessmen, parents, and society in general. School administrators in particular realize that vocational curriculum planning is not complete until the worth of the result has been evaluated.

Technological change, increasing mobility of the population, increasing size of the work force, greater role of women in the work force, and urbanization of the

¹Erwin D. Canham (ed.), Womanpower, A Statement by the National Manpower Council with chapters by the Council Staff (New York: Columbia University Press, 1957), p. 221.

²Occupational Outlook Handbook (1961), op. cit., p. 274.

population have brought on many changes in the American economy in recent years. In addition, the increasing young adult population has been burdened with a disproportionate unemployment rate. This unemployment rate among young adults has been intensified by our evolution from an industrial to a technological society. Although bringing many benefits to society, this technological age has created new problems.

What, then, are the basic assumptions by which every high school principal, curriculum director, curriculum committee, guidance committee, or parent group must consider when reviewing the role of business education in the light of recent social and economic trends? Hamden L. Forkner lists these basic assumptions as follows:

1. Every young person, regardless of his future vocational or professional aspirations and accomplishments, will constantly be called upon to make decisions and take actions that are based on knowledge about business and its operations.
2. Every young person, regardless of the size of school or community, is entitled to the opportunity of becoming competent in the vocational and economic life of our day.
3. The high school curriculum, if it is to meet modern needs of youth, will have to undergo some major changes in the way of eliminating from the curriculum some of the things that make no difference in the way young people and adults live in today's world. The high school will have to question the time spent in learning skills of the horse-and-buggy era so that more time will be available for other important learnings.
4. The complexity of modern business and economic life is so marked that only those who have been specifically prepared to teach business and economics should be entrusted to educate youth about business and economic activities.

5. The levels of work in modern business are so varied that most young people in high school can be prepared for one of these levels provided the school is alert to the situation and is prepared to adjust traditional patterns to new needs.
6. Every young person who plans to continue his education beyond high school should be prepared to pursue that education.
7. Business subjects should be accepted by colleges and universities on the same basis as other high school subjects.¹

These and similar lists of assumptions underlying the inclusion of business education in the curriculum of the expanding American high school can be translated into basic goals. According to Herbert A. Tonne, business education, of which vocational office training is a part, has the two following goals:

1. Business education is a type of training which, while it helps to achieve all the aims of education at any level of learning, has for its primary objective the preparation of students for entrance upon a business career; or having entered upon such a career, to render more efficient service therein and to advance their present levels of employment to higher levels.
2. Training in those phases of business that concern every member of society. This purpose of business education is nontechnical and involves: (1) education of persons to be intelligent consumers of the services of business, and (2) a clear understanding of the nation's economy.²

¹Hamden L. Forkner, "Characteristics of Business Education in our Expanding High Schools," The Business Education Program in the Expanding Secondary School, ed. Lloyd V. Douglas (Washington, D.C.: United Business Education Association, 1957), pp. 13-4.

²Herbert A. Tonne, Principles of Business Education (New York: Gregg Publishing Company, Inc., 1954), pp. 8-9.

Clearly, then, if general education is thought of as the adjustment of the individual to his environment, business education must be thought of as the adjustment of the individual to his business environment. Thus, business education helps the individual to adjust to his total environment.

The President's Panel of Consultants on Vocational Education presented its report to President John F. Kennedy on November 28, 1962. The report states that:

It is becoming increasingly clear that there is no real assurance now that mastery of an occupation, once achieved, will last any worker a lifetime. Although jobs may change, a worker who has mastered the skills of a trade or occupation and who has kept himself abreast of new techniques and developments can reasonably expect to continue in his trade throughout his working life. Preemployment training of youth must therefore provide a solid occupational foundation. In addition, the potential member of the labor force must be well aware of his responsibility for his own self-development if he is to continue to keep up to date in his occupation. Since more and more workers will need a program of lifelong learning, continuing educational opportunities must be provided to cope with occupational change. Vocational educators must train more broadly for career patterns, for a lifelong sequence of employment opportunities.¹

Educators are not in complete agreement as to what part of the high school educational program should be allotted to general and what to specialized education, and when the latter should begin. Stratemeyer, Forkner, McKim, and Passow in their book, Developing a Curriculum for Modern Living, state:

¹U. S., Office of Education, Education for a Changing World of Work, Report of the Panel of Consultants on Vocational Education (Washington, D. C.: U. S. Government Printing Office, 1963), p. 16.

The fundamental issues which underlie the choices made by those who guide the learning experiences of children and youth must be re-examined in terms of new findings and changing conditions. Alternatives for resolving basic curriculum problems will have to be critically studied and appraised to determine how well they actually contribute to the achievement of desired ends. Ways will have to be found for using the constantly growing body of research reported by educators and specialists in related fields. But at the same time, those who work most closely with learners must extend their competencies in studying the potency of school-guided experiences for helping individuals cope with the persistent life situations they face.¹

The need for more meaningful analytical tools for evaluation.--The Dictionary of Education defines the follow-up study as "a study made to collect information about a student at some period after a counseling contact in order to estimate the effect of that contact; used in evaluating counseling and employment work."² Business educators have made extensive use of follow-up research primarily as an organized inquiry into the experiences and reactions of high school graduates. The purpose of this normative-survey method of research is typically to assess the effectiveness of business education instruction by investigating the graduates who, while in high school, either pursued a business curriculum or took at least one business course.

¹Florence B. Stratemeyer, Hamden L. Forkner, Margaret G. McKim, and Harry A. Passow, Developing a Curriculum for Modern Living (New York: Teachers College, Columbia University, 1957), p. 728.

²Carter V. Good (ed.), Dictionary of Education (New York: McGraw-Hill Book Company, Inc., 1959), p. 531.

A bulletin prepared by the Joint Committee on Needed Research of the Research Foundation of the United Business Education Association (now the National Business Education Association) suggests numerous research topics that involve follow-up of high school graduates and/or drop-outs.¹

Many general texts in the fields of guidance, curriculum, and high school administration have emphasized the potential values of local follow-up studies of high school graduates. In addition, follow-up studies of high school graduates have been recommended through publications of the U. S. Office of Education, state departments of education, and organizations such as the National Association of Secondary-School Principals and the American Council on Education. The recommendation for continued follow-up studies was made as early as 1940 by Reeves and Bell. They stated that:

An essential step in the care and education of youth is for each community which has its own distinctive pattern to make its own inquiry to ascertain what are the present needs and wants of its young people.²

Thus, it can be established that follow-up studies are of considerable value when attempting to evaluate the effectiveness of vocational training. However, there are

¹United Business Education Association, Needed Research in Business Education, prepared by Joint Committee on Needed Research in Business Education, Bulletin of the UBEA Research Foundation (Washington, D.C.: The Association, 1955), 16 pp.

²F. W. Reeves and Howard M. Bell, "Youth and Work Opportunities," The Needs of Youth in Modern America, ed. Paul B. Jacobson, Vol. 24 (Washington, D.C.: National Association of Secondary School Principals, 1940), p. 1.

many limitations of follow-up studies as typically applied. Herbert J. Langen, in a doctoral study pertaining to needed research in business education, concluded that follow-up studies should be continued and should also be applied more appropriately.¹

One of the limitations of most follow-up studies, according to a study by Robert Lowry, appears to be the:

. . . tendency for subjects who had different interests, experiences, and abilities, as well as different degrees of scholastic success in high school, to be converted for convenience of analysis of interpretation, into standard units, so to speak, that were seldom differentiated in terms of previous school success, school experiences, and other variables.²

A challenging question remains to be answered according to Lowry: "What relationships exist between the nature, quality, and extent of school success and experiences, on the one hand, and after-school success and experiences, on the other hand?"³ In order to attempt to answer the above question, there must be a recognition that the determinants of career patterns are multi-dimensional. These dimensions are related to the graduate's scholastic achievement, family background, educational and vocational goals, etc., all of which play some role in career development.

¹Herbert J. Langen, "A Study to Determine the Needed Research in Business Education as Revealed by Titles of Research Studies Completed, 1933-1953, and by a Survey of Opinions from Two Selected Groups of Business Educators," National Business Education Quarterly (October, 1955), 24:49.

²Robert A. Lowry, "Principles of Follow-up Research in Business Education" (unpublished Doctoral Dissertation, Indiana University, 1958), p. 180.

³Ibid., p. 182.

Much of the background information on graduates can be obtained from high school permanent records. However, Lowry found in analyzing twenty follow-up studies that:

The twenty reports analyzed contain no record of a successful application of data available in records of school marks, guidance folders, etc., in the analysis and interpretation of follow-up data. Only one investigator may be said to have experimented with the possibility of relating pupils' scholastic records to their after-school experiences.¹

Thus, analytical tools are needed which will help the researcher to determine the effect of various determinants upon individual and group work careers. According to Donald Super:

Groups must be studied to identify common determinants of career patterns. However, differences in the importance of various determinants could be obscured by pooling data from groups which are too heterogeneous. To clarify the roles of determinants, it may be well, be most appropriate to study groups with certain characteristics in common and to compare such groups with other groups having different characteristics in common. It may be fruitful, for example, to study the career patterns and the determinants of the patterns of groups similar with respect to intelligence, socio-economic status, measured interests, or kinds of entry jobs.²

Limitations of the Study

Limitation as to high schools.--This study was limited to graduates of the Class of 1956 from the three public and two Catholic (hereafter referred to as parochial) schools in Lansing, Michigan. These five schools constituted the total

¹Ibid., p. 180.

²Donald E. Super, et al., Vocational Development--A Framework for Research, Monograph 1 (New York: Teachers College, Columbia University, 1957), pp. 83-4.

number of high schools in Lansing in 1956.

Limitation as business curricula studied.--This study was concerned solely with the amount and type of vocational office training obtained by the graduates in the 10th, 11th, and 12th grades. Other curricula were considered only incidentally in computing grade point averages and in classifying those graduates who had no vocational office training or combinations of vocational office training and some other course of study.

Limitation as graduates studied.--This study was concerned with graduates who entered the office field within six months after graduation and who obtained no additional training other than what might have been provided by an employer within the business concern. The few graduates who held a part-time job after first securing a full-time job within six months were considered as a part of this sample throughout the study.

Limitation as to time.--The period of time under study was limited to a span of six years or from June, 1956 to June, 1962. Thus, ample time was provided for the graduates in the study to develop the beginning years of a career pattern yet not be so far removed from school days that they could still answer significant questions for the study.

Limitations as to instructional methods.--This study was not concerned with the instructional methods employed in teaching vocational office subjects and related activities in the public and parochial schools of Lansing, Michigan.

Rather, the study attempts to determine the effects of the training obtained by the graduates on their subsequent beginning career patterns.

Definition of Terms

Vocational education is used here to broadly designate that portion of the education which goes further than general education by dealing in a more specialized manner with the development of occupational competency. It is not restricted to those programs which are reimbursable through the National Vocational Education Acts.

Business education as used hereafter will refer to "that area of education which develops skills, attitudes, and understandings essential for the successful direction of business relationships."¹

Career refers to "The structured sequence of events in the life of a person as he progresses in a job or as he changes from one job to another in the occupational structures."²

Career pattern refers to the "sequence of jobs that follow some orderly development."³ The term will be used to focus attention on mobility and certain aspects of success and satisfaction as related to job changes within and in and out of the office field over the six-year period under study.

¹Good, op. cit., p. 71.

²Super, op. cit., p. 131.

³Delbert C. Miller and William H. Form, Industrial Sociology (New York: Harper & Brothers, 1951), p. 861.

Initial work period refers to a period of job impermanence beginning when the worker seeks her first temporary job during her span of school enrollment and continuing until she has completed her education.¹

Trial work period refers to a period of job transition beginning when the worker seeks her first full-time, permanent job and continuing until she has secured a position in an occupation which she intends to remain to the exclusion of other occupations.²

Office field will refer to the classification given in the 1956 National Office Management Salary Survey in addition to certain positions within the Michigan Bell Telephone Company.³

Mobility will refer to the actual movement of workers from one job to another, or into and out of employment, or into and out of the labor force.⁴

Office cooperative training refers to the Office Cooperative Occupational Training Program. This is a program of study providing for alternating daily study in school

¹A modification of Miller and Form's definition, p. 836.

²A modification of Miller and Form's definition, p. 867.

³National Office Management Association, Office Salaries (Willow Grove, Pennsylvania: National Office Management Association, 1956), and private correspondence from Michigan Bell Telephone Company, Lansing, Michigan (April 30, 1963).

⁴Herbert S. Parnes, Research on Labor Mobility, An Appraisal of Research Findings in the United States (New York: Social Science Research Council, 1954), p. 22.

with supervised job training from a cooperating employer and the teacher-coordinator.

High school graduate refers in some research to school-leaver.

CHAPTER II

REVIEW OF LITERATURE

A review of the studies pertaining to the career patterns or beginning career patterns of female workers reveals a dearth of literature. No studies were found pertaining specifically to the beginning career patterns of female high school graduates who entered the office field after graduation. However, studies were found that pertained to the career patterns of male workers which were of considerable value in revealing similarities and differences in problems, purposes, techniques, and procedures, and in identifying results that might be expected, occasionally at least, to serve as a basis for comparisons later in this study.

All the studies reviewed are related in some aspect to the present study; yet none are duplicated in scope, organization, or presentation of data. The reviewing of literature pertinent to the background of this study is divided into three parts: (1) studies related to career patterns and mobility; (2) career patterns of women; and (3) beginning career patterns.

Studies Related to Career Patterns and Mobility

Career patterns.--The term career pattern is not a familiar one, yet it is not new. Super defines the term

career pattern in the following manner:

Most commonly, an individual's career pattern describes changes in the socio-economic level of the jobs held during his working life. The focus is not on success or satisfaction but on level and on movement, as shown by jobs and job changes.¹

The definition of the term career pattern given above is similar to the one employed in the present study, viz., "the sequence of jobs that follow some orderly development."² Both definitions lend themselves to the examination of the work histories of many individuals who have shared common experiences. The common experience in the present study was that all the subjects entered the office field after graduation. As will be seen later, this common experience indicates that although labor market behavior is in many respects a highly personalized phenomenon, there are, nevertheless, ways in which it can be viewed normatively.

Some of the most useful information about labor market behavior comes from the work done on the career patterns of males. Delbert C. Miller and William H. Form, in their book Industrial Sociology, define career pattern as the "sequence of jobs that follow some orderly development."³ Their use of the concept primarily found employment as a graphic portrayal of one aspect of vocational development, the work history. They focused attention on socio-economic status and mobility rather than on success or satisfaction and gave

¹Super, op. cit., p. 72.

²Miller and Form, op. cit., p. 861.

³Ibid.

a presentation of changes in occupational level or field over a period of time.

The present study was concerned with identifying beginning career patterns of high school graduates in the office field. The office field as defined in Chapter I (see p. 14) constitutes only a portion of what Miller and Form refer to as the clerical and kindred occupational level. Therefore, the present study is more narrow in this respect than Miller and Form's work.

In the present study the emphasis given to the determination of career patterns was that of movement within and in and out of the office field. This movement, however, was viewed as successful when it tended in an upward direction. For example, those graduates with the greatest amount of vocational office training should have the most success in terms of upward mobility.

The first research in career patterns was carried out by P. E. Davidson and H. D. Anderson in their study of Occupational Mobility in an American Community.¹ The study was carried out in the city of San Jose, California. The study was published in 1937 and traced job sequences of males from various socio-economic groups and patterns of careers characteristic of each group were established. The sample included 1,242 persons and comprised almost exactly 7 per cent of the 17,745 males who were gainfully employed in

¹P. E. Davidson and H. D. Anderson, Occupational Mobility in an American Community (Stanford: Stanford University Press, 1937).

San Jose according to the 1930 census. It was assumed that the proportion of workers in each group at the time the sample was taken (in the late months of 1933 and the early months of 1934) was practically the same as that shown in the 1930 census.

Davidson and Anderson conclude in part that:

The data as a whole suggested that the occupational pyramid processes, an institutional character, that its marked stratification is due in large measure to forces related to an emerging from the occupational status of fathers and family environment in which children are reared, and that these do not submit easily to other influences such as the school but tend to form certain patterns which become characteristic of the several occupational levels.¹

\ In terms of clerical workers (their definition is broader than that used in this study) whose patterns are displayed in this study, tended to come largely from the homes of skilled-artisan fathers. They received an elementary schooling, then entered unskilled or semi-skilled employment in training for trades in which they finally settled. Their range of occupational experience was limited. The pattern for clerical workers indicated a class-like tendency from skilled status of fathers to that of their sons.²

The female high school graduates in the present study, predominately emerged from the same socio-economic levels as those discussed above by Davidson and Anderson for the clerical and kindred workers. The graduates were classified as to socio-economic level by using W. Lloyd Warner's revised

¹Ibid., p. 186.

²Ibid., p. 187.

scale for rating occupations.¹ Of the seven levels in this scale, 80 per cent of the graduates came from the 4th, 5th, and 6th levels. These particular occupational levels are characterized by the skilled-artisan.

Miller and Form distinguished five stages in which the job sequence of workers could be classified. The basis for this classification was the work histories of a small but selected sample of men in the State of Ohio. Even though these stages were developed from the work histories of men, still, they had merit in establishing some structure for investigating the beginning career patterns of women. The five stages as summarized are as follows: (1) the preparatory work period, in which the child begins to develop an orientation to the world of work through home, neighborhood, and school activities; (2) the initial work period which begins with the first part-time or summer work experience at around the age of fourteen; (3) the trial work period which begins with entry into the regular labor market some time between sixteen and twenty-five and continuing until a stable work position is located, usually after considerable changing of jobs until a type of work is found in which the young adult can hold his own, at about the age of thirty-five; (4) the stable work period which begins at about age thirty-five and continues until age sixty; and (5) the

¹W. Lloyd Warner, Marchia Meeker, and K. Eells, Social Class in America (Chicago: Science Research Associates, 1949), pp. 140-1.

retirement period which begins at sixty or sixty-five.¹

Since the work period under investigation in the present study includes approximately the same ages as given for the initial and trial work period, the two definitions were accepted as appropriate for this study.

Miller and Form, having established that their job sequences could be classified into the five abovementioned stages, proceeded to see if the sequences of these work periods were patterned in different ways in different occupational or socio-economic groups. This was essentially what Davidson and Anderson had done fifteen years earlier. A summary of the career patterns found are as follows: (1) the stable career pattern which is most characteristic of professional careers, many managers, some skilled workers and to a lesser extent semi-skilled and clerical workers; (2) the conventional career pattern which follows the usual progression from initial through trial to stable employment and is characteristic of managerial, skilled, and clerical workers; (3) the unstable career pattern where the worker is not successful in establishing himself permanently in what might have been a lifetime job or occupation, but instead gives up his potential career in one field and goes off in a different direction. This is characteristic of semi-skilled, clerical, and domestic workers; and (4) the multiple-trial

¹Delbert C. Miller and William H. Form, "Occupational Career Patterns as a Sociological Instrument," American Journal of Sociology, 54 (1949), 317-29.

career pattern observed mostly in domestic, clerical, and semi-skilled workers where there is frequent change of employment with no one type of employment sufficiently long enough or dominant to justify calling the person established in a career.¹

It was deemed impractical to differentiate between trial and stable jobs for the female sample in the present study as defined above by Miller and Form. The graduates remained in the office field with great regularity. Less than ten graduates out of one hundred twenty-six decided to leave and pursue some other occupation. Furthermore, the frequent unemployment, due chiefly to marriage and/or pregnancy of the females in this study, would render such a criterion of classification meaningless.

Socio-economic status has been shown to be related to the education and occupational aspirations of youth even when the effects of intelligence are controlled.

In 1957, Sewell, Haller, and Strauss tested the hypothesis that levels of educational and occupational aspiration of youth of both sexes are associated with the social status of their families when the effects of intelligence are controlled. They gathered a one-sixth sample from a total of 4,167 nonfarm seniors in public and private high schools in Wisconsin.

Among the findings of this study, the following seemed particularly pertinent to the present study:

¹Miller and Form, Industrial Sociology, op. cit., p. 712.

1. The apparent effects of social status on levels of educational and occupational aspirations are not simply due to the common relationship of these variables to intelligence, although intelligence is related to both types of aspirations.
2. This conclusion is specific to persons from non-farm families. Within this group, however, the relationship of level of aspiration to social status with intelligence controlled holds for both sexes and for both educational and occupational aspiration.
3. Because the sample was drawn from a broad population of high school seniors from the entire state of Wisconsin, and because the effects of measured intelligence and sex were controlled, the study lends support to the sociological claim that values specific to different status positions are important influences on educational and occupational aspiration.¹

The above findings do not deny the importance of intelligence to educational occupational aspirations, but suggests that status makes an independent contribution to these aspirations.

Socio-economic status has been shown to be related to the vocational choice of students even after having a thorough vocational counseling experience. Ruth Sampson and Buford Stefflre, in 1952, attempted to measure the relationship of parent occupation to the vocational choice of students who had a thorough vocational counseling experience. Specifically, this study was concerned with the relation between the student's first choice of vocational objective and his father's (or family wage earner's) vocation.

¹William H. Sewell, Archie O. Haller, and Murray A. Strauss, "Social Status and Educational and Occupational Aspiration," American Sociological Review, 22:1 (February, 1956), pp. 72-3.

The sample consisted of 1,136 white senior students who had a thorough counseling experience. The Chi-square test was used to test the null hypothesis that parent occupation and child's vocational objective are unrelated or independent.

The findings pertinent to this study were summarized as follows:

1. A relationship was found between parent occupation and child's vocational choice which, at the 1 per cent level of confidence, must be attributed to factors other than chance. The Chi-square test showed that the child's selection of a vocational objective was not "independent" of his parent's occupation. This lack of independence suggests some kind of parental "influence" over the child's vocational aspirations.
2. The primary over-all tendency revealed here is for children to pick occupations at higher levels than their parents' but there was also a significant secondary tendency for the parent occupation to influence the child's choice of vocational objectives. In many instances, the relationship seemed most direct in that the child selects the same level of occupation (as classified by the Dictionary of Occupational Titles) that his parent occupies.¹

The literature reviewed thus far stresses the importance of occupational status of fathers and family environment in which children are reared as the primary determinants of career patterns. There is little doubt of their importance as determinants of career patterns. However, the amount of education or special training, special aptitudes, and

¹Ruth Sampson and Buford Stefflre, "Like Father ... Like Son?" The Personnel and Guidance Journal, XXXI:1 (October, 1952), pp. 37-9.

vocational interests have important influences on career patterns. Super noted this when he stated:

Socioeconomic status, family background, amount of education, general and special aptitudes, and vocational interests have been shown to be important. How they interact in vocational development has not been demonstrated in a conclusive manner. The influence of other probable determinants, such as personality, is not yet well understood.¹

In conclusion, the above research would indicate that the great majority of subjects in the present study should not have substantially improved on the occupational status of their fathers. As will be seen later in the study, this was shown to be correct.

Mobility.--Basic to any analysis of the extent and nature of job mobility is the definition of a job. The meaning given to this term will affect both the incidence and the pattern of mobility discerned from any given body of data on workers' employment histories. Robert S. Parnes, in the bulletin Research on Labor Mobility, lists the following commonly recognized types of worker mobility:

1. Interfirm movement, from one occupation to another.
2. Occupational movement, from one occupation to another.
3. Industrial movement, from one industry to another.
4. Movement from an unemployed to an employed status.
5. Movement from an employed to an unemployed status.
6. Movement into and out of the labor market.²

¹Super, op. cit., p. 83.

²Parnes, op. cit., p. 24.

Parnes states:

Regardless of the concept of mobility preferred by various investigators, it has almost invariably been measured in terms of the actual movement of workers. Conclusions concerning the relative propensities of various groups in the labor force to make job shifts have been deduced from differentials in the amount of movement of these groups and from the circumstances in which such movement has taken place.¹

In the present study, a judgment had to be made as to the relative importance of various approaches to the subject of labor mobility. The six-year period under investigation in this study allowed for the development of short-run, as opposed to long-run mobility patterns. Therefore, every effort was made to study mobility patterns as manifested in movements within and in and out of job classifications in the office field.

Parnes states that:

In most of the empirical research on labor mobility a job has been designated as a continuous period of service with a single employer. This definition automatically excludes from the analysis of labor mobility all changes in the occupational assignments of workers within a given firm, thus understating the occupational mobility of workers and the occupational flexibility in labor supply. The omission is the more significant, if, as some observers believe, most upward occupational movement is intra-firm rather than interfirm.²

All of the 126 female graduates entered the office field after graduation from high school and less than ten graduates decided to leave the office field for employment in another occupation. Therefore, measures of mobility primarily found employment in detecting job movement within

¹Ibid., p. 20.

²Ibid., p. 25.

the office field. A job classification scale for the office field was employed which ranked office jobs in relation to beginning salaries paid these jobs in 1956, the year of graduation. In this way, mobility related to intrafirm and interfirm, and mobility in an upward or downward direction could be reported.

Career Patterns of Women

No studies were found which related specifically to the career patterns of women. Unfortunately, the careers of women, especially the careers of those who do not enter the professions, have been overlooked by researchers until the recent past. However, a study by the National Manpower Council, published in 1957 in the book Womanpower, contained the labor market behavior of women. These following findings seemed particularly pertinent to this study:

1. The occupations of girl students in high school mirror to some extent the distinctive activities of women in the home and in the labor market. About half the girls, compared to only 12 per cent of the boys, held domestic or other service jobs, including baby-sitting. About one-tenth of the girls, but hardly any boys, were in clerical jobs. Among older students, over 40 per cent of the women students, but only 16 per cent of the men, held clerical jobs; hardly any women, but nearly 40 per cent of the men, were operatives, laborers, or craftsmen.
2. Concentration in relatively few fields is characteristic of the initial employment of women, just as it is of their fields of study in high school and college. Currently, about 45 per cent of all girls, compared to about 30 per cent of all boys, terminate their formal education with high school graduation. Over two-fifths of these girls have followed clerical or commercial curricula and about

three-fifths of these who enter employment secure clerical jobs. Even among girls who do not graduate from high school--who currently account for about 40 per cent of all girls--over one-fourth of these who enter employment find clerical jobs. The types of jobs held by girls who enter clerical work vary significantly with their education. Thus, about 40 per cent of the high school graduates are employed as secretaries, stenographers, and typists.

3. Frequently, a woman performing the same job functions as a man is given neither the same job title nor the same wage. It has been asserted that women are sometimes used exclusively in certain occupations and men in others in order to maintain differences in pay levels.
4. Many employers state that they do not want to employ women for some jobs because they are likely to quit after an investment has been made in their training. It is significant that in two of the most important occupations for women--clerical work and teaching--the new worker must have acquired their basic skills before starting to work and employers provide little additional training. [Emphasis mine]
5. On the basis of the existing evidence, it cannot be asserted that women generally constitute a cheap source of labor as compared with men. As far as can be seen, employers do not hire women for particular jobs because of differences in wage costs alone. The employment of women, as of men, always depends upon many other factors.
6. The concentration of women within a much narrower range jobs and the division of jobs into "men's" and "women's" have been repeatedly emphasized as outstanding characteristics of the labor market for women.
7. Growth in the employment of women appears to have been accomplished more through increased employment in occupations held by women and by the emergence of new "women's" occupations than through the entrance of women into occupations formerly considered exclusively male.
8. Broadly speaking, employers' decisions about utilizing women workers for higher-level jobs

have been shaped by conventional attitudes, which generally lead to decisions to promote men. Even in fields of employment where women predominate, as in teaching, the top positions tend to go to men.

9. The widespread belief that women workers are likely to quit their jobs at any moment constitutes a serious limitation of their opportunities for promotion, as well as the range of jobs for which they are hired. There is no question that women are much more likely than men to leave the labor force during any given period of time. When a woman quits a job, she often leaves the labor force as well, but the available evidence indicates that on the average women are no more likely than men to quit their jobs.
10. After their initial introduction to work, most women do not remain in paid employment continuously, but many work part-time, temporarily, or intermittently.
11. It seems clear that more effective utilization of womanpower will require employers to re-examine their policies involving the training and promotions of women workers. High levels of employment, employer concern with turnover problems, and the changing characteristics of women workers--quite apart from other considerations--warrants such an undertaking.
12. Many women apparently want to be engaged in both work and homemaking functions but do not want to be totally absorbed in either.
13. Discontinuity in employment poses the problem of skill maintenance for those women who temporarily leave the labor market and of skill development when they return.¹

Donald E. Super, in his book the Psychology of Careers, devotes his primary attention to the careers of men. However, he believes that the career patterns of women can be classified in the following manner:

¹Canham, Womanpower, op. cit., pp. 220-53, passim.

1. The stable homemaking career pattern. This category includes all women who marry while in or very shortly after leaving school or college, having expected to do so and having had no significant work experience.
2. The conventional career pattern. In this pattern of working followed by homemaking the young woman leaving school or college goes to work for a period of several months or several years, in an occupation which is open to her without training beyond that which she obtained in her general education, in brief professional education substituted for general education, or in some relatively brief post-high school or post-collegiate education. Clerical work, teaching, nursing, occupational therapy, and secretarial work illustrate these types of occupations. They are generally viewed as stop-gaps, but may be first be thought of as life careers, with subsequent change of aspirations. They are often valuable as an opportunity for developing independence and a sense of being a person in one's own right. Marrying after this relatively brief work experience, the young woman becomes a full-time homemaker.
3. The stable working career pattern. The sequence in this type of career pattern is one of entering the work force on leaving school, college, or professional school and embarking upon a career which becomes the woman's life work. She may perceive it as a life career from the start: a small percentage of young women do have strong career (as contrasted with homemaking) motivation and interests. Or she may at first view her working career as a preliminary to marriage, whether as a stop-gap job, a working career to continue with marriage, or a working career to resume after a period of full-time homemaking. This perception of working as a preliminary to marriage not infrequently changes to a perception of working as the life career, especially in parts of the country and in times in which women are more numerous than men. The change of orientation is, in these instances, often a difficult one to make.
4. The double-track career pattern. This is the pattern of the woman who goes to work after completing her education, marries, and continues with a double career of working and homemaking. She may take occasional time out for childbearing. The pattern is most common near the upper

and lower ends of the occupational scale, among woman physicians and scientists, and among women domestics, presumably because the challenge of the work, or the income it produces, is important to the women in question. The double role is in neither case easy, for the married working woman usually has two jobs, one with and without pay.

5. The interrupted career pattern. Here the sequence is one of working, homemaking, and working while or instead of homemaking. The young woman works for some time, then marries, and then, when her children are old enough for her to leave them, when financial needs--including those resulting from being widowed or divorced--or interest in working becomes dominant, she returns to work. If she has children, the age at which she decides they can be left depends upon her socio-economic status: the higher the level of the family, the older and more independent the children must be before the mother believes she may leave the home for work. The work to which the married woman returns may be that of her original work career, or it may be different: which it is depends upon what she has done with her training and experience during the full-time homemaking period, her interest in and ability to obtain refresher training, new interests developed while a homemaker, retraining possibilities, and local manpower needs and requirements. Thus many former teachers return to teaching, but relatively few former secretaries return to secretarial work.
6. The unstable career pattern. In women this type of career pattern consists of working, homemaking, working again, returning to full-time homemaking, etc. It results most often from irregular economic pressures which make extra earnings necessary despite homemaking preferences or needs, or from poor health necessitating giving up employment, or from a combination of these. This pattern is observed most often at the lower socio-economic levels.
7. The multiple-trial career pattern. This pattern is the same in women as the similarly named pattern in men; it consists of a succession of unrelated jobs, with stability in none, resulting in the individual having no genuine life work.¹

¹Donald E. Super, Psychology of Careers (New York: Harper & Brothers, 1957), pp. 77-8.

Beginning Career Patterns

In light of the research reviewed above and the examination of the data, it was found that the beginning career patterns of the one hundred twenty-six female graduates in this study could best be defined as follows:

1. \ The stable beginning career pattern. The sequence in this type of beginning career pattern is one of entering the labor market in the office field in low or high job levels and ultimately experiencing upward mobility in somewhat related jobs. She may take occasional time out for marriage and/or childbearing. If she started in the higher job levels she is still considered in this pattern since upward mobility is more difficult at this level. For example, a private secretary has difficulty in moving much further in six years although she might increase her responsibilities within this classification.

2. \ The dead-end beginning career pattern. The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the lower level jobs and remaining on that same level or experience mobility in a downward direction. She may take occasional time out for marriage and/or childbearing.

3. The unstable career pattern. The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the low or high job levels and experiencing a succession of unrelated jobs and

perhaps leaving the office field for employment in some other occupation.

4. The temporary worker beginning career pattern. The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the low or high job levels and leaving the labor market completely for the remainder of the six-year period within one year after graduation.

CHAPTER III

DATA COLLECTION AND ANALYSIS

The sample population and geographic area, the instruments, the sampling techniques, and the methods of analysis in determining the effects of vocational office training upon subsequent beginning career patterns are described in this chapter. This chapter is divided into six parts: (1) sources of data, (2) description of Lansing, Michigan, (3) description of local high schools, (4) data collection, (5) analysis, and (6) summary.

The main steps followed in this study are listed below:

1. Securing the cooperation of the local superintendents of schools and school administrators.
2. Locating the graduates of the Class of 1956 and recording permanent record card data.
3. Developing, pre-testing, and refining the mail questionnaire and personal interview form.
4. Selection of four Groups of graduates to be used for the comparative group analysis.
5. Analysis of the data.
6. Summary and recommendations.

Sources of Data

The data for this study consisted in part of responses to a questionnaire by the 1956 female high school graduates from the public and parochial high schools in Lansing, Michigan, who entered the office field after graduation. Additional background information was obtained by examination of the graduate's high school records. However, the primary source of data came from interviews with the above-mentioned graduates.

Description of Lansing, Michigan

Location and population.--Lansing is located eighty miles from Detroit, two hundred and fifty from Chicago and Cleveland, and near the center of the lower peninsula of Michigan. Since 1900 the population of the city has grown from 16,485 to 115,000. The city encompasses 32.13 square miles, and at the present time there are 299,000 people living in the Greater Lansing area.

Industry and income.--Lansing has grown from a few industries fifty years ago, most of which were agricultural, to two hundred nine at present. Most of the two hundred nine industries are either primarily or secondarily related to the automobile industry. Lansing is the home of Oldsmobile Corporation, a division of General Motors. The average income per family in Lansing is \$6,800.

Employment.--Lansing's labor force is fourth largest in Michigan consisting of 115,400. The unemployment in the Lansing Area as of December, 1961, was only 3.6 per cent.

The location of principal State Government Agencies and Michigan State University in the immediate area serve as a stabilizing factor of employment in the community.

Description of Local High Schools

The three public high schools.--The public schools operate on a 6-3-3 plan. The three public high schools used in this study operate on a plan of three years of junior high school and three years of senior high school; in different buildings and under different administration within the building. The high schools offer a choice of college preparatory curriculum, a general academic curriculum, day trade, and a business (commercial) curriculum.

The three public high schools included in this study were Eastern High School with approximately 1,734 students, Everett High School with approximately 1,516 students, and Sexton High School with approximately 1,672 students.

The two parochial high schools.--The two parochial high schools operate on a 8-4 plan. The schools operate in different buildings and under different administration within the buildings. The parochial schools offer a choice of college preparatory curriculum, a general academic curriculum, and a business (commercial) curriculum. Day trade is available to interested students by attending the local public schools one-half day.

The two parochial high schools included in this study were Resurrection High School with approximately 413 students, and St. Mary's High School with approximately 385 students.

Data Collection

Locating the population.--The names and addresses of the graduates were secured from the five cooperating high schools. The school record folders and census cards were made available for this purpose. To assist in locating the graduates, the names of the father and mother, along with their occupations, were secured for each student. If the graduate could not be located in the city or telephone directory, frequently he could be located through the place of business of one of his parents.

Other means of locating the graduates included working with the school alumni group and classmates; checking information given on school records by brothers and sisters who were still in school; checking the local marriage license bureau records for the six-year period, 1956-1962; and enlisting the cooperation of the local credit bureau. When all of these efforts failed, a house call was made at the original address given and frequently the person living there, or a neighbor, could provide information as to the whereabouts of the graduate.

Constructing and pre-testing mail questionnaire.--The mail questionnaire (see Appendices B and C) was prepared to gather data pertinent to the graduate's employment history for the six-year period under investigation, current address, married name, additional schooling or training, and certain reactions to their high school course of study.

The mail questionnaire was pre-tested (see Appendix A) by selecting every twelfth census card from the Class of 1957, the class graduating one year after the class under investigation. Follow-up letters were not used with this sample. Observations made of the 50.75 per cent response received, the following changes were made in the questionnaire:

1. Two initial contact letters were designed; one referring specifically to public high school graduates and one referring specifically to parochial high school graduates.

2. Questions referring to the employment status of graduates were changed to obtain additional information concerning the reasons why graduates were employed or unemployed.

In preparation for sending the mail questionnaire to the Class of 1956, each graduate was assigned a code number. This code number was recorded in such a way as to be associated with the returned questionnaire. The cover letter was integrated with the mail questionnaire and the subject's name and address was individually typed.

The mail questionnaire was made as brief as possible to insure a high return. The questionnaire was mailed to all members of the Class of 1956, and from the three hundred sixty-six female graduates, the writer received three hundred sixty-two returns, or a response of 99 per cent. The location of the graduates took four months to accomplish.

It should be noted that this extremely high response was not achieved without considerable effort. Five separate follow-up cards and letters (see Appendices D,E,F,G, and H) were employed during this stage of the investigation. John D. Nixon mentions that some authorities recommend that investigators who decide to employ the mailed questionnaire technique be prepared to make as many as eight additional mailings in an effort to achieve a full count of responses.¹

In order to maintain good relations between Michigan State University and the Lansing public and parochial high schools, a letter of appreciation was sent to each respondent. Glenn E. Smith reminds those who do follow-up work to send a note of appreciation to the respondents upon receipt of the questionnaire.²

Analysis

Criterion for determining office jobs.--In order to measure the mobility patterns of the graduates in this study from one job to another, into and out of employment, or into and out of the labor force, a classification system for this purpose had to be selected. According to Parnes:

Most studies of occupational mobility have used the classification system of the Bureau of the Census or that of the Bureau of Employment Security, as given in its Dictionary of Occupational Titles.

¹John D. Nixon, "The Mechanics of Questionnaire Construction," Journal of Educational Research, Vol. 47 (March, 1954), p. 486.

²Glenn E. Smith, Principles and Practices of the Guidance Program (New York: The Macmillan Company, 1951), p. 318.

Occasionally, these two systems have been used in conjunction with one another, with the occupational descriptions in the Dictionary of Occupational Titles serving as guides for the classification of doubtful cases.¹

The major concern of this study in relation to mobility patterns was not with the broad occupational classifications, but rather, with the shifts of workers within the office field. The National Office Management Association's classification of office jobs was finally selected as the best classification system for the purposes of this study.

The National Office Management Association's Salary Survey is conducted annually in all major cities in the United States and Canada. The 1956 National Office Management Association Salary Survey for Lansing, Michigan² (see Appendix M) was selected because it possessed the following requirements: (1) an accepted reference for office managers in determining job titles and descriptions, and (2) the beginning salaries paid these jobs were given for the Lansing labor market in 1956. The National Office Management Salary Survey for 1956 reported beginning salaries of businesses of various types and sizes. This aspect of the survey gave the beginning salaries for the various job titles salary rates representative of the Lansing labor market.

Seven additional job titles and descriptions were included in the office classification since these jobs are normally considered within this occupation. The Bell

¹Parnes, op. cit., p. 27.

²Lansing Salary Survey (National Office Management Association, Lansing Chapter, 1956), 6 pp.

Telephone Company submitted the job titles and descriptions and the beginning salaries paid in 1956. The thirty-one titles and descriptions ranked according to the beginning salary paid in 1956 are as follows:

1. **COST CLERK.** Computes cost of production, selling or of operating a unit from the contributory costs of such items as materials, labor and overhead. Calculates unit costs, total costs, and expense distribution. May perform related work.
2. **BUSINESS OFFICE SUPERVISOR.** Supervises service representatives, hires, trains new employees, handles requestions for special services requests from customers, handles personnel problems.
3. **ACCOUNTING CLERK-A (SENIOR BOOKKEEPER).** Keeps a complete and systematic set of accounting records. Examines and records the transactions in proper record books, journalizing transactions where judgment must be used as to accounts affected. Balances books and compiles reports at regular intervals.
4. **SALES ORDER CLERK.** Receives and records orders from customers. Quotes prices and answers calls for product information. Receives notice of items that cannot be supplied and informs customer. Keeps file of orders received. May perform related work: filling orders, checking credit, contacting old customers.
5. **SERVICE REPRESENTATIVE.** Deals with customers concerning telephone bills and accounts, sells telephone equipment and services, arranges credit, deposits on residence service, answers questions concerning company, rate and charges.
6. **TABULATING MACHINE OPERATOR.** Operates a machine that automatically analyzes, makes calculations and translates or divides information represented by holes punch in groups of tabulating cards, and prints the translated data on form sheets, reports, special cards or accounting records. Sets or adjusts machine to add, subtract, multiply and make other calculations. May operate auxiliary machines.

7. **SERVICE ASSISTANT.** Instructs new operators, is responsible for their additional training, deals with customers and handles special problems, supervises groups of operators, does some personnel interviewing.
8. **SECRETARY, PRIVATE.** Fully qualified stenographer to senior executive(s). Performs work of a confidential and technical nature. Takes dictation by shorthand and/or transcribing machine. Schedules appointments. Handles telephone calls. Has thorough knowledge required of routines, personnel, functions, and policies to relieve executive(s) of minor duties.
9. **DIAL SERVICE INSTRUCTOR.** Calls resident customers and discusses proper telephone usage and how to dial properly. When new services are introduced, such as All Number Calling, helps explain and educate the customers.
10. **SECRETARY-STENOGRAPHER.** Performs secretarial duties for one or more executives. Takes dictation by shorthand and/or transcribing machine. May be required to be versed in the technical language of a particular business. Relieves executives served of minor office details and duties.
11. **TRANSCRIBING MACHINE OPERATOR.** Transcribes the message, reproduced in sound, from a recording device on a transcribing machine. May type other supplementary information not recorded.
12. **CONTROL OPERATOR.** Assists instructor in training new operators. Operates training equipment at "dummy switchboard," acts as customer to simulate real calls.
13. **ACCOUNTANT CLERK-B (JUNIOR BOOKKEEPER).** Keeps a record of and works with less than a complete set of accounting records. May perform the more routine calculating and posting duties necessary in accounting; verifying the company bank account; keeping files of records; preparing invoices or monthly customer's statements; posting to and balancing accounts receivable or accounts payable sections; taking trial balances.
14. **STENOGRAPHER-A (SENIOR).** Records and transcribes dictation of more than average difficulty by use of shorthand and/or transcribing machine. Requires knowledge of proper letter forms and complicated set-ups. Must be familiar with

company organization and routines. May perform related clerical duties. Works under general supervision, but must use judgment. May work in a stenographic pool.

15. **DUPLICATING MACHINE OPERATOR.** Operates stencil, fluid (spirit), or simple offset type office duplicator. Responsible for mechanical operation, quality, and accuracy of work. May prepare stencils or masters.
16. **SENIOR OPERATOR.** An understudy for the Service Assistant. Spends some time operating, and some time supervising other operators. Handles complaints, service requests, does some training.
17. **PAYROLL CLERK.** Computes wages of company employees and writes the proper data on payroll sheets; calculates each worker's earnings based on timekeeper's report, individual time cards, and work or production tickets; posts calculated data on payroll sheet (such as name of worker, working days, time rate, deductions and total wages due). May make out pay checks and assist paymaster in making up and distributing pay envelopes.
18. **CLERK, GENERAL-A (SENIOR).** Performs routine clerical duties under supervision such as compiling or posting data on records or performing similar work of average difficulty. Requires some experience and the ability to complete assignments with a minimum of difficulty. May do some typing.
19. **ADDRESSING MACHINE OPERATOR.** Operates machine which uses stencils or plates for mechanical addressing of any type. May prepare original stencil or plate and is responsible for accuracy of processing.
20. **BOOKKEEPING MACHINE OPERATOR.** Operates bookkeeping machine, with or without typewriter keyboard, and performs related clerical duties.
21. **KEY PUNCH MACHINE OPERATOR.** Records accounting and statistical data in tabulating cards by punching a series of holes in specified sequence, using a key punch machine. May operate a verifying machine.
22. **TELEPHONE OPERATOR.** Accepts and completes local and long distance calls from Lansing and area customers. Refers to route charts, quotes

charges and rates, handles some complaints, provides special services such as mobile, sequence, conference calls.

23. **STENOGRAPHER-B (JUNIOR).** Takes and transcribes from shorthand notes or from dictating machine, routine dictation involving generally used business terms and expressions. Must have general knowledge of company routines and set-ups. May type requisitions, orders, schedules, checks. May work in a stenographic pool under direct supervision.
24. **TYPIST-A (SENIOR).** Does general typing requiring the exercise of judgment and assumption of responsibility in carrying out assignments, involving statistical, rough draft material, copying of technical or unusual business correspondence of other materials. May cut stencils. Must be accurate, with ability to lay out and arrange work. Dictation not required.
25. **MAIL CLERK.** Processes incoming and outgoing mail. May operate related machines and equipment and perform other minor office duties.
26. **MESSENGER.** Delivers letters, messages, packages and other items within an establishment or to other concerns. May keep simple records and perform other minor office duties.
27. **TELEPHONE OPERATOR.** Operates switchboard handling incoming, outgoing and intra-company calls. Keeps a record of long distance calls; is responsible for checking telephone calls. May have incidental duties, such as receptionist, requires a good knowledge of personnel of establishment; works communication system. May work paging and public address system and/or plant music player.
28. **CALCULATING MACHINE OPERATOR.** Primarily occupied in operation of a machine that performs the arithmetic computations of adding, subtracting, multiplying, and dividing.
29. **CLERK, GENERAL-B (JUNIOR).** Performs duties of simple or repetitive nature such as sorting, posting, checking, copying and addressing envelopes. Duties performed require little previous experience and a minimum of judgment. May do some typing.

30. FILE CLERK. Systematically classifies, indexes and files correspondence, cards, invoices, receipts and other records locates and removes material from file on request. May keep a record of material removed.
31. TYPIST-B (JUNIOR). Does typing of simple, routine nature, copying from plain printed or written material, correcting copy, simple form letters, reports, charts; may cut stencils and address envelopes. Able to type accurately, with fair speed. Dictation not required.¹

Selection of sample for further study.--All 1956 female graduates who entered office jobs within six months after graduation without receiving any additional formal training except what might have been provided by an employer were identified. The overwhelming majority of those who entered the office field after graduation without additional formal training did so within six months. The fifteen graduates who had located in states other than Michigan were not included in the sample because of the desire to keep labor market conditions somewhat constant for the subjects under investigation.

Of the three hundred sixty-two 1956 female high school graduates who responded to the mail questionnaire (a 99 per cent response) there were one hundred thirty-five who qualified for this sample. Of those qualified, one hundred twenty-two were interviewed and one hundred twenty were usable. Six graduates completed the interview form by mail because of extreme difficulty in arranging interview appointments. Seven graduates refused to be interviewed or could not be contacted.

¹Job Titles and Descriptions taken from Salary Survey Summary 1956, Lansing Chapter, National Office Management Association (1956); and private correspondence from Michigan Bell Telephone Company, Lansing, Michigan (April 30, 1963).

Subjects and course of study.--Only those subjects in which the one hundred twenty-six graduates were enrolled during the 10th, 11th, and 12th grades were studied. The analysis was directed toward the course of study pursued by the students. The Lansing Public Schools course of study (see Appendix L) was used for classifying the graduates as to curricula taken in high school. This was justified on the basis that the parochial high schools contributed only thirty subjects to the sample of one hundred twenty-six and their course of study was easily adapted to the public school curriculum structure for the purposes of this study.

The public and parochial high school course of study was observed and recorded for each graduate in the sample. The college preparatory course was typical in all five high schools. The emphasis was on social studies, mathematics, science, and foreign languages. The commercial (business education) consisted of general clerical and bookkeeping with emphasis on typing, bookkeeping, and office practice, and business mathematics; and secretarial training with emphasis on typing and stenography. Opportunities for distributive training were only available in the public high schools.

A general academic course of study was also available in all five high schools. The academic course consisted of a combination of college preparatory, commercial, and general subject matter with no specific emphasis on any one course sequence.

Cooperative office occupational training was offered in the public schools during the senior year whereby the student could obtain actual supervised experience in business for one-half day while attending related classes the other half-day.

Certain principles were used in determining which courses would meet the minimum requirements for vocational office training. Business education departments in our high schools across the country typically teach non-vocational courses which are a part of the general education of all students. Ray Price states that:

Usually the non-vocational business courses are classified as general education. These are also referred to as the socio-business or basic business subjects. Economic geography, business law, consumer problems, economics, general business, and principles of business belong to this category. That is not to say that the vocational subjects are devoid of general education values; but where such values do occur, they are incidental to the major aims of these courses.¹

First, then, no course was considered vocational which was a business equivalent of a general education subject and which tended to teach general comprehension even though taught through the structure of the business curriculum. Therefore, business English, business law, business organization, business arithmetic, and commercial geography were excluded from the list of courses providing vocational office training.

¹Ray G. Prince, "Business as General Education," The Business Education Program in the Expanding Secondary School (Washington, D.C.: National Association of Secondary-School Principals, 1957), p. 18.

The teaching of personal business competencies is another important aim of most business education departments.

E. B. Weaver states that:

Personal business competencies are needed by all students in the high school because everyone, regardless of his vocation or profession, is continuously engaged in activities that have to do with money, banking, labor relations, credit, installment buying, taxes, insurance, consumer buying of both goods and services, social security, retirement plans, and legislation which affects economic life.¹

Secondly, then, no course was considered vocational which had as its main objective the education of the student for personal business activities. Therefore, special book-keeping, basic business, consumer training, and typewriting I (beginning course) were excluded from the list providing vocational office training.

Specifically, then, vocational education was used here to broadly designate that portion of the education which goes further than general education by dealing in a more specialized manner with the development of occupational competency. This suggests that unless vocational competency predominates in a course, it is not vocational.

This position is supported by Parker Liles, who said:

In general, it is the application of the skills and knowledge acquired in a given area which enables a person to enter business or industry and

¹E. B. Weaver, "What a High School Principal Thinks Business Education Should Do," The Business Education Program in the Expanding Secondary School (Washington, D.C.: National Association of Secondary-School Principals, 1957), p. 10.

perform specific duties at an acceptable rate of production.¹

What courses, then, were considered as contributing to vocational office training. Table 1 presents a complete list of courses taught at the three public and two parochial high schools in Lansing which are normally considered business curricula and those deemed vocational subjects for the purposes of this study.

Selection of Groups for further study.--The sample in this study could logically be divided into Groups by the use of two criteria. First, the number of vocational office courses would indicate the extent to which the graduates had been exposed to vocational office instruction. Secondly, the grade point averages of the graduates in vocational office courses would indicate the degree of proficiency attained in these courses. The grade point averages of the one hundred twenty-six graduates were observed in relation to the number of vocational office courses they had taken in high school. No significant differences were suggested. Therefore, the sample was divided into four Groups according to the number of vocational office courses taken in high school. Four Groups were used in order to attain the greatest degree of discrimination between graduates with various levels of vocational office preparation. More than four Groups would not allow a sufficient number of graduates in each Group for the

¹Parker Liles, "Business Education Contributes to Vocational Competence," The Business Education Program in the Expanding Secondary School (Washington, D.C.: National Association of Secondary-School Principals, 1957), p. 24.

Table 1.--A list of courses taught at the three public and two parochial high schools normally considered office curricula and those deemed vocational

All courses	Those deemed vocational ^c
Bookkeeping I	Bookkeeping I
Bookkeeping II	Bookkeeping II
Bookkeeping III	Bookkeeping III
Bookkeeping IV	Bookkeeping IV
Business arithmetic	
Business English ^b	
Business organization	
Business writing ^a	
Commercial geography	
Comptometry I	Comptometry I
Comptometry II ^a	Comptometry II
Office machines I	Office machines I
Office machines II	Office machines II
Office practice I ^a	Office practice I
Office practice II ^a	Office practice II
Office techniques ^b	Office techniques
Shorthand I	Shorthand I
Shorthand II	Shorthand II
Shorthand III	Shorthand III
Shorthand IV	Shorthand IV
Transcription I ^b	Transcription I
Transcription II ^b	Transcription II
Typing I	
Typing II	Typing II
Typing III	Typing III
Typing IV	Typing IV

^aCourses taught exclusively at parochial schools.

^bCourses taught exclusively at public schools.

^cFor criteria, see discussion, pp. 47-49.

desired statistical computations.

Some graduates in this sample majored in business education and specialized in secretarial or general clerical and bookkeeping training. Other graduates pursued college preparatory or general academic course of study while enrolling in vocational office courses on an elective basis. Although only vocational courses were used in dividing the sample into Groups

for further study, all curricula or combinations of curricula pursued by the graduates are presented in Table 2.

Graduates who majored in business education typically completed at least ten vocational office courses. Therefore, the twenty-three graduates who had taken from between ten to thirteen vocational office subjects were assigned to Group I. The forty graduates who had taken from between seven and nine vocational office courses were assigned to Group II and the thirty-three graduates who had taken from between four and six vocational office courses were assigned to Group III. The thirty graduates who had taken from between zero and three vocational office courses were assigned to Group I. The latter represented the Group with the lowest level of preparation. An equal number of graduates in each Group would have been desirable for ease in analysis; however, the objective of having representative levels of preparation was of more importance for the purposes of this study.

A final check was performed to determine if the four Groups were significantly different in relation to their attained grade point averages in vocational office courses. A Chi-square of 3.83 was not in excess of the .05 level of confidence. Therefore, no statistically significant difference was suggested. Consequently, the number of vocational office courses taken in high school by this sample was a valid criterion for assigning graduates to the four Groups.

Summary

The data provided by this study consisted of responses to a mail questionnaire, examination of high school graduate

Table 2.--A numerical comparison of Groups I, II, III, and IV as to their course of study and specialization

Course of Study	Number of Graduates in Special- izations	Number of Graduates in Groups
Group I (10 - 13 courses)		23
Business Education		
Secretarial	23	
Group II (7 - 9 courses)		40
Business Education		
Secretarial	27	
General Clerical and Bookkeeping . .	3	
College Preparatory and Business Education		
Secretarial	8	
General Academic and Business Education		
General Clerical and Bookkeeping . .	2	
Group III (4 - 6 courses)		33
Business Education		
Secretarial	6	
General Clerical and Bookkeeping . .	8	
College Preparatory and Business Education		
Secretarial	10	
General Clerical and Bookkeeping . .	3	
General Academic and Business Education		
Secretarial	4	
General Clerical and Bookkeeping . .	2	
Group IV (0 - 3 courses)		30
College Preparatory and Business Education		
Secretarial	11	
General Clerical and Bookkeeping . .	2	
General Academic and Business Education		
General Clerical and Bookkeeping . .	6	
Retailing	3	
College Preparatory	6	
General Academic	2	
Total	126	126

permanent records, and interviews with a selected group of female high school graduates from the Lansing, Michigan public and parochial high schools.

To establish which female high school graduates had entered the office field after graduation without receiving any additional training other than what might have been provided by an employer, a mail questionnaire was sent to all female high school graduates from the Class of 1956. Of the three hundred sixty-six female high school graduates, three hundred sixty-two responded providing a 99 per cent return.

Of the three hundred sixty-two graduates who responded, one hundred fifty were qualified in all respects for the sample. However, fifteen graduates who lived in states other than Michigan were excluded from the sample in order to keep labor market conditions somewhat constant for the subjects under investigation. Of the one hundred thirty-five remaining, one hundred twenty-two were interviewed and one hundred twenty were usable. Six graduates completed the interview form by mail because of extreme difficulty in arranging interview appointments. Seven graduates refused to be interviewed or could not be contacted.

The one hundred twenty-six graduates who were included in the sample were subsequently divided into four Groups on the basis of the amount of vocational office training they had received in high school. The next two chapters present the findings of the study. Chapter IV provides sample background information; and Chapter V an analysis of the graduates initial employment (employment while still attending high school) and employment after graduation in an effort to discern their beginning career patterns.

CHAPTER IV

SAMPLE BACKGROUND DATA

This chapter is devoted to a descriptive study of variables relating to sample background such as: socio-economic background, high schools attended, grade point average at graduation, number of siblings in family, place of residence while attending high school, extra-curricular activities in high school, educational and vocational goals, and age at graduation.

Group I (highest number of vocational office courses), II, III, and IV (lowest number of vocational office courses) were compared on the abovementioned variables because of the possible influence these variables could have had on the graduate's beginning career patterns. Most of the information was recorded in the permanent records, maintained in the school offices, for graduates. These permanent records were fairly complete; however, in a few instances where the graduate had transferred into the district from an out-of-town school, information was not always available.

Analysis of data.--Some of the data in this chapter were analyzed in terms of the number of students in each Group by percentage comparisons; other data were analyzed by the Chi-square formula. The statistical significance was set at the .05 level of confidence. Computations were not

carried beyond the second decimal point, and in many cases only whole numbers are reported to facilitate interpretation.

Age at graduation.--Graduates under eighteen years of age sometimes experience difficulties in obtaining employment due to the Child Labor Laws. A condensed general summary of the findings presented in Table 3 shows that 90 per cent of the graduates reached their eighteenth or nineteenth birthday during 1956, the year of graduation. Only 10 per cent were seventeen during the year of graduation.

Table 3.--A percentage comparison of Groups I, II, III, and IV as to their age at graduation

Birthday	Group I	Group II	Group III	Group IV	Total
19th	4	10	12	3	8
18th	83	80	82	87	82
17th	13	10	6	10	10
Total	100	100	100	100	100

Graduate's socio-economic level.--The graduate's socio-economic level was determined by examining the socio-economic level of the father. Information concerning the father's socio-economic level was not restricted to his occupational level but extended to include his educational level. The most accurate determination was made by combining these two factors. Before the socio-economic level could be determined, however, an examination was made of the father's ancestry in order to rule out any influence of being "foreign born." This information was not available for six fathers, but of the one hundred twenty remaining, one

hundred fourteen were born in the United States and only six were foreign born. Therefore, the influence of father's ancestry was not considered of significance for the purposes of determining father's socio-economic level.

Information about the father's occupational and educational level came primarily from two sources: the high school permanent records and the interview form. In order to combine these two factors in determining the father's socio-economic level, W. Lloyd Warner's¹ seven-point scale (see Appendix K) was utilized. Most occupational rating scales allow individuals engaged in a particular classification, for example, professions, to be classified on only one level. Warner's seven-point scale is superior to these scales in that it develops the full range within occupational levels. It is possible, for example, for ministers who graduated from divinity school to be on the top level, ministers with some formal training to be on the second level, and ministers with no formal training to be on the third level of the scale.

The seven levels of the scale are as follows: professionals, proprietors and managers, businessmen, clerks and kindred workers, manual workers, protective and service workers, and farmers. It is possible, of course, for any individual in one of these classifications to be in different levels depending on his educational background, social standing of the particular occupation, or the amount of

¹Warner, op. cit.

capital invested in a business.

In a few cases the school record and personal interview were not sufficient to establish which level the father was to be placed. For example, in the case of store owners, it was necessary to estimate roughly the value of the business, for Warner's scale differentiates businesses worth less than \$500, \$500 to \$2,000, \$2,000 to \$5,000, \$5,000 to \$20,000, \$20,000 to \$75,000, and \$75,000 and over. Inspection of business premises, plus an occasional discrete inquiry, helped clarify doubtful cases.

Table 4 presented the socio-economic level of the graduates in the four Groups. Of the one hundred twenty-six graduates, one hundred seventeen or 93 per cent fell in the 3rd, 4th, 5th, and 6th levels. The largest concentration was found in the 5th and 6th levels accounting for 66 per cent. Since all the one hundred twenty-six female graduates entered what Warner would call the clerk and kindred worker occupational level (the 5th level), this study tends to verify previous research concerning the influence of socio-economic backgrounds on the choice of son's and daughter's occupational choices.

In order to determine if the four Groups differed significantly in their socio-economic levels the one hundred twenty-six graduates were divided into the following two categories: (1) those in the highest three levels were considered for the purposes of this study to be in the upper level, and (2) those in the lowest four levels were

Table 4.--A percentage comparison of Groups I, II, III, and IV as to their socio-economic level

Socio-economic level	Group I	Group II	Group III	Group IV	Total
1st		2	3		2
2nd	17		9	10	5
3rd	7	8	12	17	13
4th	39	5	18	17	14
5th	26	47	18	27	33
6th		35	39	30	33
7th		2	2		1
Total	99	99	101	101	101

considered to be in the lower level. Table 5 presents a Chi-square analysis of the four Groups in relation to their socio-economic level. The Chi-square of 5.98 was not in excess of the .05 level of confidence, therefore no statistically significant difference was suggested among the four Groups. Consequently, socio-economic level was disregarded as a determinant of various types of beginning career patterns.

Table 5.--A Chi-square analysis of Groups I, II, III, and IV as to their socio-economic level

	Group I	Group II	Group III	Group IV	Total
Upper level	8	4	8	8	28
Lower level	15	36	25	22	98
	<u>23</u>	<u>40</u>	<u>33</u>	<u>30</u>	<u>126</u>
df = 3	Sign. .05 = 7.815		$\chi^2 = 5.98$		<u>Not Significant</u>

Grade point average at graduation.--The grade point averages at graduation were based on the work done in the 10th, 11th, and 12th grades. The four-point system of grading was used by all five high schools. Table 6 presents a percentage comparison of the four Groups in relation to their grade point averages at graduation. Eighty-one per cent of the graduates were found to be in the good and average categories.

Table 6.--A percentage comparison of Groups I, II, III, and IV as to their grade point averages at graduation

Grade point average	Group I	Group II	Group III	Group IV	Total
Outstanding (A - A-)	13	17	6	10	12
Good (B+ - B-)	35	32	21	43	32
Average (C+ - C-)	52	48	58	40	49
Poor (D+ - D-)		3	15	7	6
Total	100	100	100	100	99

Table 7 presents a Chi-square analysis of the four Groups in relation to their grade point averages at graduation. The Chi-square of 11.98 was not in excess of the .05 level of confidence, therefore the statistically significant difference among the four Groups was suggested. Consequently, grade point average at graduation or scholastic ability was disregarded as a determinant of various types of beginning career patterns in this study.

Table 7.--A Chi-square analysis of Groups I, II, III, and IV as to their grade point averages at graduation

	Group I	Group II	Group III	Group IV	Total
Outstanding (A - A-)	3	7	2	3	15
Good (B+ - B-)	8	13	7	13	41
Average (C+ - C-)	12	19	19	12	62
Poor (D+ - D-)	<u>23</u>	<u>1</u> 40	<u>5</u> 33	<u>2</u> 30	<u>8</u> 126
df = 9	Sign. .05 = 16.92				$\chi^2 = 11.98$
					<u>Not Significant</u>

High schools attended by the graduates.--The five high schools in Lansing could differ in some respects. In order to check the variables, Table 8 presents a percentage comparison of the four Groups in relation to the high schools attended. There is a reasonable distribution of the five high schools in Groups II, III, and IV; however, Group I consists exclusively of public high school graduates.

Table 8.--A percentage comparison of Groups I, II, III, and IV as to the high schools attended

School	Group I	Group II	Group III	Group IV	Total
Sexton	74	5	15	40	28
Eastern	22	55	45	20	38
Everett	4	15	6	10	10
St. Mary's		10	24	10	12
Resurrection		15	9	20	12
Total	100	100	99	100	100

Table 9 presents a Chi-square analysis of the four Groups in relation to the high schools attended. The Chi-square of 47.59 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups. Close observation of the course of both public and parochial schools showed the absence of parochial school graduates in Group I (the Group with the highest number of vocational office courses) to be a matter of not offering enough courses in this area to have any graduates in the 10-13 course Group. No real differences were noted in the mode of instruction.

Table 9.--A Chi-square analysis of Groups I, II, III, and IV as to the high school attended

	Group I	Group II	Group III	Group IV	Total
Sexton	17	2	5	12	36
Eastern	5	22	15	6	48
Everett	1	6	2	3	12
St. Mary's		4	8	3	15
Resurrection		6	3	6	15
	<u>23</u>	<u>40</u>	<u>33</u>	<u>30</u>	<u>126</u>
df = 12	Sign. .05 = 21.03		$\chi^2 = 47.59$		<u>Significant</u>

To further test the Groups in relation to the schools attended, Groups I and II and Groups III and IV were tested for significance on this variable. Table 10 presents a Chi-square analysis of Groups I and II and Groups III and IV in relation to the schools attended. The Chi-square of 5.06 was not in excess of the .05 level of confidence, therefore not suggesting any statistically significant difference

Table 10.--A Chi-square analysis of Groups I and II and III and IV as to the high schools attended

	Groups I and II	Groups III and IV	Total
Sexton	19	17	36
Eastern	27	21	48
Everett	7	5	12
St. Mary's	4	11	15
Resurrection	6	9	15
	<u>63</u>	<u>63</u>	<u>126</u>
df = 4	Sign. .05 = 9.49	$\chi^2 = 5.06$	<u>Not Significant</u>

among the four Groups. Therefore, those with the most vocational office training (Groups I and II) and those with the least vocational office training (Groups III and IV) did not differ as to high schools attended. This facilitated the interpretation of data investigated in Chapter V.

Further testing of the four Groups in relation to the grade point averages and socio-economic levels of the graduates from the five schools was indicated because of the significant differences between the Groups as to the numbers from each school. Table 11 presents a Chi-square analysis of the grade point average of the graduates in relation to the schools attended. The Chi-square of 8.81 was not in excess of the .05 level of confidence, therefore not suggesting any statistically significant difference among the grade point averages of the graduates from the five high schools.

Table 12 presents a Chi-square analysis of the socio-economic levels of the graduates of the five high schools. The 1st socio-economic level was combined with the 2nd and

Table 11.--A Chi-square analysis of the grade point averages of the graduates from the five high schools

	Outstanding	Good	Average	Poor	Total
Sexton	6	12	15	3	36
Eastern	5	16	23	4	48
Everett	1	6	5		12
St. Mary's	1	2	11	1	15
Resurrection	2	5	8		15
	<u>15</u>	<u>41</u>	<u>62</u>	<u>8</u>	<u>126</u>
df = 12 Sign. .05 = 21.05 $\chi^2 = 8.81$ <u>Not Significant</u>					

Table 12.--A Chi-square analysis of the socio-economic levels of the graduates of the five high schools

	2nd	3rd	4th	5th	6th	Total
Sexton	2	5	6	11	12	36
Eastern	1	6	5	15	21	48
Everett		2	1	5	4	12
St. Mary's	4	1	3	6	1	15
Resurrection	1	2	3	5	4	15
	<u>8</u>	<u>16</u>	<u>18</u>	<u>42</u>	<u>42</u>	<u>126</u>
df = 16 Sign. .05 = 26.30 $\chi^2 = 19.81$ <u>Not Significant</u>						

the 7th combined with the 6th level since there was only a total of three in both levels. The Chi-square of 19.81 was not in excess of the .05 level of confidence, therefore not suggesting any statistically significant difference among the socio-economic levels of those from the five high schools. Therefore, in terms of the socio-economic level, grade point average and high schools attended, only the different high schools attended showed any statistically significant differences. The latter was primarily due to Group I having only public school graduates.

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Number of siblings.--This information was not available in the school folders for four graduates. The mean score for those reported for Group I was 3.13 siblings; 2.82 for Group II; 3.50 for Group III; and 3.51 for Group IV. The number of siblings in a family ranged from an only child to eight brothers and sisters. The majority of cases fell between one and four siblings. Therefore, there were no differences between the four Groups and the number of siblings was disregarded as a determinant of various types of beginning career patterns for this sample.

With whom the graduate lived when attending high school.--The recorded information showed that the majority of students, 84 per cent, lived with both parents. Four graduates, or 3.17 per cent, lived with the mother only; and ten graduates, or 7.93 percent, lived with stepfather and mother. Other family relationships included living with father and step-mother; grandparents; and step parents.

Days absent.--The attendance record is often considered by the employer of high school graduates when interviewing prospective employees. Employers generally hold the belief that good school attendance will usually mean good work attendance. Table 13 presents a percentage comparison of the four Groups in relation to their attendance in high school. Sixty-eight per cent had less than ten absences in high school. The largest distribution is found in Group II; however, this was expected since there were forty graduates in this group.

Table 13.--A percentage comparison of Groups I, II, III, and IV as to their attendance in high school

Absences	Group I	Group II	Group III	Group IV	Total
0- 4.99	39	55	42	40	45
5- 9.99	30	15	33	17	23
10-14.99	22	15	15	23	18
15-19.99	9	5	6	20	10
20-24.99		2	3		2
25-29.99		2			1
30-34.99		5			2
Total	100	99	99	100	101

Extra-curricular activities.--The number of extra-curricular activities ranged from zero to eight. The mean score for Group I was 2.00 activities; 1.32 for Group II; 2.48 for Group III; and 1.90 for Group IV. There were 39 per cent of the graduates in Group I; 45 per cent in Group II; 12 per cent in Group III; and 33 per cent in Group IV that did not participate in any extra-curricular activities. Therefore, extra-curricular activities were disregarded as a determinant of various types of beginning career patterns for this sample.

Educational plans after graduation.--Of the one hundred twenty-six female graduates, none received any additional formal schooling after graduation. Table 14 presents a percentage comparison of the educational plans of these graduates while attending high school. Thirty per cent of Group IV (lowest number of vocational office courses) planned to go to college after graduation from high school. This

Table 14.--A percentage comparison of Groups I, II, III, and IV as to their educational plans while in high school for further schooling

Classifi- cation	Group I	Group II	Group III	Group IV	Total
College	9	15	6	30	15
Business school	22	3	6	3	7
Technical school	4				1
Finish high school	65	30	42	27	39
Not given		53	45	40	38
Total	100	101	99	100	100

seems like a tragic waste of time and effort. All of Group I stated some plan in relation to education after high school. Sixty-five per cent simply wanted to finish high school.

Vocational plans after graduation.--The vocational plans of the four Groups after graduation is described in terms of how many planned to enter the office occupations. Table 15 presents a percentage comparison of this data. There was a tendency on the part of Groups II, III, and IV not to state on their school records any vocational plans. All reported this information in Group I. Later we will see that the vocational plans of the graduates in Groups I and II were more consistent with their behavior after graduation in the labor market.

Table 15.--A percentage comparison of Groups I, II, III, and IV as to their vocational plans after graduation

Classific- ation	Group I	Group II	Group III	Group IV	Total
Office oc- cupations	87	35	33	13	39
Other	13	15	15	43	21
Not re- ported		50	52	43	40
Total	100	100	100	99	100

Summary.--The four Groups differed on the variables analyzed in the three following aspects: (1) the educational plans after graduation of Group I (highest number of vocational office courses) were more consistent with their behavior during the six-year period under study; (2) the vocational plans of Group I were more consistent with their beginning career patterns; and (3) Group I was composed exclusively of public high school graduates. The findings stated in (1) and (2) above will be verified in Chapter V. This systematic elimination of possible determinants of beginning career patterns assisted in making the findings in Chapter V related to the effects of vocational office training more interpretable.

CHAPTER V

FINDINGS

The data for this chapter were taken primarily from the interview form (see Appendix J). Additional information was obtained from the mail questionnaire and high school permanent records. The chapter is divided into the following major sections related to labor market behavior: (1) initial employment, and (2) employment after graduation. The initial employment section (jobs held while still attending high school) is limited to the 10th, 11th, and 12th grades of high school and is described with numerical and/or percentage comparisons, Chi-square analysis and correlation. The employment after graduation section is limited to the six-year period June, 1956 to June, 1962 and is treated in the same way as the initial employment section with the addition of a graphic portrayal of the beginning and ending jobs of the four Groups.

The purpose of investigating the initial work period was to determine what effects the work experience gained during this period might have had on the development of subsequent beginning career patterns in the six-year period after graduation.

Initial Employment

Office Cooperative Occupational Training.--The Office Cooperative Occupational Training Program (hereafter referred to as the office cooperative program) was a program provided by the Lansing public schools for senior high school students whereby they could obtain supervised experience in office occupations. Eleven or 48 per cent of Group I (the Group with between 10-13 vocational office courses), twenty-five or 62 per cent of Group II (the Group with between 7-9 vocational office courses), nine or 27 per cent of Group III (the Group with between 4-6 vocational office courses), and one or 3 per cent of Group IV (the Group with between 0-3 vocational office courses) chose to participate in this on-the-job training program.

Further investigation of those who participated in the cooperative office program showed a heavy concentration of graduates who had specialized in secretarial training. Table 16 presents a numerical comparison of those who participated in the office cooperative program in relation to the type of vocational office training received. Only nine or 26 per cent of the forty-six who participated in the cooperative program specialized in the general clerical and bookkeeping sequence of courses. Those in Groups I and II had the largest share of those who participated in cooperative training.

In order to determine if the four Groups differed significantly as to the proportion in each group who participated in the office cooperative program, those who

Table 16.--A numerical comparison of those who participated in the cooperative program in Groups I, II, III, and IV as to the type of vocational office specialization

Type of Specialization	Group I	Group II	Group III	Group IV	Total
Secretarial	11	22	4		37
General clerical & book-keeping		3	5	1	9
Total	11	25	9	1	46

participated in the program were put in one category and those who did not were put in another category. A Chi-square analysis of the four Groups in relation to the number who participated in the office cooperative program is presented in Table 17. The Chi-square of 28.39 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups. This suggests that cooperative training experience may have influenced the beginning career patterns of those in Groups with more vocational office training.

Number of months graduates worked in office field.--

How much initial work experience was gained in directly related types of employment? This analysis takes into consideration the number of months worked in any office job including the cooperative program. A percentage comparison of the number of months the four Groups worked in the office field

Table 17.--A Chi-square analysis of Groups I, II, III, and IV as to participation in the cooperative program

	Group I	Group II	Group III	Group IV	Total
Participated	11	25	9	1	46
Did not participate	<u>12</u>	<u>15</u>	<u>24</u>	<u>29</u>	<u>80</u>
	23	40	33	30	126
df = 3	Sign. .05 = 7.82		$\chi^2 = 28.39$		<u>Significant</u>

graduation is presented in Table 18. The distribution of initial office experience considered in this way shows that this experience is not restricted to those who participate in the cooperative program. Group II (7-9 vocational office courses) had twenty-nine or 72 per cent of its graduates working in office jobs before graduation.

Table 18.--A percentage comparison of Groups I, II, III, and IV as to the number of months worked in initial office jobs

Number of months	Group I	Group II	Group III	Group IV	Total
None	44	28	58	80	51
1-9	35	42	18	7	26
10-18	22	22	9	13	17
19-27		5	9		4
28-36		2	6		2
Total	101	99	100	100	100

Table 19 presents a Chi-square analysis of the four Groups in relation to the number who had or did not have initial experience in office jobs. The Chi-square of 20.02 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups. Consequently, those graduates with the most vocational office training were more apt to have had office experience before graduation from high school.

Table 19.--A Chi-square analysis of Groups I, II, III, and IV as to how many graduates had initial work experience in office jobs

	Group I	Group II	Group III	Group IV	Total
Had initial office job	13	29	14	6	62
No initial office job	<u>10</u> 23	<u>11</u> 40	<u>19</u> 33	<u>24</u> 30	<u>64</u> 126
df = 3	Sign. .05 = 7.82		$\chi^2 = 20.02$		<u>Significant</u>

Number of months graduates worked in all initial jobs.--

In order to discuss the total amount of work experience background which could have influenced the beginning career patterns of the graduates, the number of months worked in initial jobs was analyzed. This analysis, as was true of initial job analysis, was limited to the 10th, 11th, and 12th grades in high school. An occasional graduate worked as much as five years before graduation; however, the great majority had no more than thirty-six months of initial work experience. The jobs consisted of a wide variety of part-time tasks.

Table 20 presents a percentage comparison of the four Groups in relation to the total number of months worked in initial jobs. Group IV had eleven of the thirty graduates or 37 per cent who had no initial work experience.

Table 20.--A percentage comparison of Groups I, II, III, and IV as to the total number of months worked in all initial jobs

Number of months	Group I	Group II	Group III	Group IV	Total
None	17	5	21	37	19
1-9	39	38	27	13	29
10-18	17	25	18	13	19
19-27	13	18	6	13	13
28-36	13	15	27	23	20
Total	99	101	99	99	100

A Chi-square analysis of the four Groups in relation to the total number of graduates who had any initial work experience is presented in Table 21. The Chi-square of 11.70 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups. Therefore, initial work experience was considered a possible determinant of the graduate's beginning career patterns.

Summary.--The important consideration when viewing the analysis of initial work experience in relation to employment after graduation is that the Groups with the most vocational office training also have had the most initial work experience. Therefore, differences found in employment after

Table 21.--A Chi-square analysis of Groups I, II, III, and IV as to the number who had initial work experience

	Group I	Group II	Group III	Group IV	Total
Had work experience	19	38	26	19	102
No work experience	<u>4</u>	<u>2</u>	<u>7</u>	<u>11</u>	<u>24</u>
	23	40	33	30	126
df = 3	Sign. .05 = 7.82		$\chi^2 = 11.70$		<u>Significant</u>

graduation were tempered with the above findings because initial work experience could have been another determinant of the various beginning career patterns. However, the correlation between the number of months in initial jobs and the beginning salary of the graduates was found to be .19. This would suggest that initial work experience does not play a significant role in this respect.

Employment After Graduation

Time it took to obtain first job.--The time it took the four Groups to obtain their first jobs after graduation was analyzed to determine if the four Groups were different in relation to this variable. Table 22 presents a percentage comparison of the four Groups in relation to the number of months it took to obtain their first job. All the graduates in Group I (the Group with the highest number of vocational office courses) obtained employment by the end of two months. However, the overall average time for finding

Table 22.--A percentage comparison of Groups I, II, III, and IV as to the number of months it took to obtain their first job

Number of months	Group I	Group II	Group III	Group IV	Total
0	65	60	39	33	49
1	22	20	18	33	23
2	13	8	15	20	12
3		3	21	13	11
4		3	3		2
5		6	3		3
Total	100	100	99	99	100

employment was 1.07 months. Therefore, no significant differences were found to exist between the four Groups.

How graduates obtained first job.--How the four Groups obtained their first job is presented as a percentage comparison in Table 23. Of the one hundred twenty-six female graduates, ninety or 71 per cent obtained their first job through personal solicitation or through their high schools. Of the forty-six graduates who participated in the cooperative program, nineteen or 41 per cent stated that they obtained their first job as a direct result of the cooperative employment. A larger percentage of those in Groups III and IV (the Groups with the lowest number of vocational office courses) had to rely on their relatives and friends to find employment. Therefore, graduates in the Groups with more vocational office training demonstrated a greater independence from relatives and friends in finding employment after graduation.

Table 23.--A percentage comparison of Groups I, II, III, and IV as to how they obtained their first job

Classifi- cation	Group I	Group II	Group III	Group IV	Total
Advertise- ment	9	5	9	7	7
Personal solicita- tion	39	35	57	53	46
Public em- ployment agency	13	10	3	7	8
High school	29	43	16	7	25
Relatives or friends	9	7	15	23	13
No response				3	1
Total	99	100	100	100	100

Number of jobs held by graduates.--The number of jobs held by the four Groups in the Lansing labor market, outside the Lansing labor market, and with a given employer were compared for differences. No significant differences were found to exist. The average number of jobs held with a given employer was 1.79. When jobs with all employers were analyzed, it was found that the average increased to 2.27 jobs. As will be seen later, significant differences did exist between the four Groups in relation to the direction of job mobility. Those graduates in Groups with more vocational office training had higher beginning and ending jobs than those in Groups with less vocational office training.

The Relationship between the Amount and Type of Vocational Office Training and Beginning and Ending Jobs

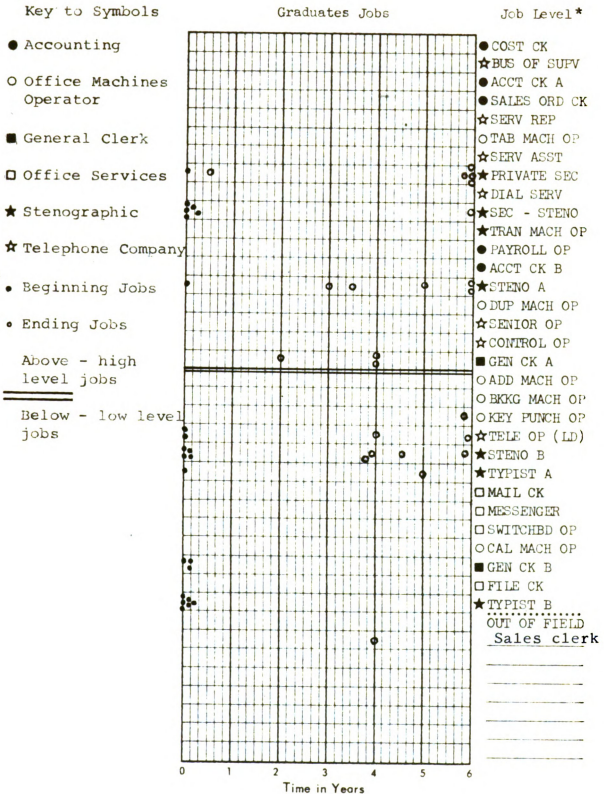
Do all Groups fare alike in the labor market in relation to entering and ending job levels in the office field regardless of the amount and type of vocational office training? One way to measure this is to show the Groups in relation to entering and ending job levels on a scale of office jobs ranked according to the average beginning salaries paid these jobs.

Entering and ending jobs held by Group I.--All of the twenty-three graduates in Group I specialized in secretarial training. At what job level and in what area of specialization did these graduates enter the office field? Figure 1 represents a scattergram of the entering and ending jobs of Group I. In order to distinguish between high and low job levels, a horizontal line is drawn under the general clerk A classification.

Eighteen or 78 per cent of the twenty-three graduates did indeed enter the labor market in stenographic jobs. Three or 13 per cent entered the labor market as general clerks; and two or 9 per cent as long distance telephone operators. In relation to high and low job levels, seven or 22 per cent were in high level jobs at the time of entry into the labor market and all jobs were in the stenographic specialization.

How did the Group with the most vocational office training fare in relation to ending jobs? Fifteen or 65 per cent of the twenty-three graduates were in stenographic jobs.

Figure 1.--A Scattergram of Group I showing entering and ending job level and job classification of the office field



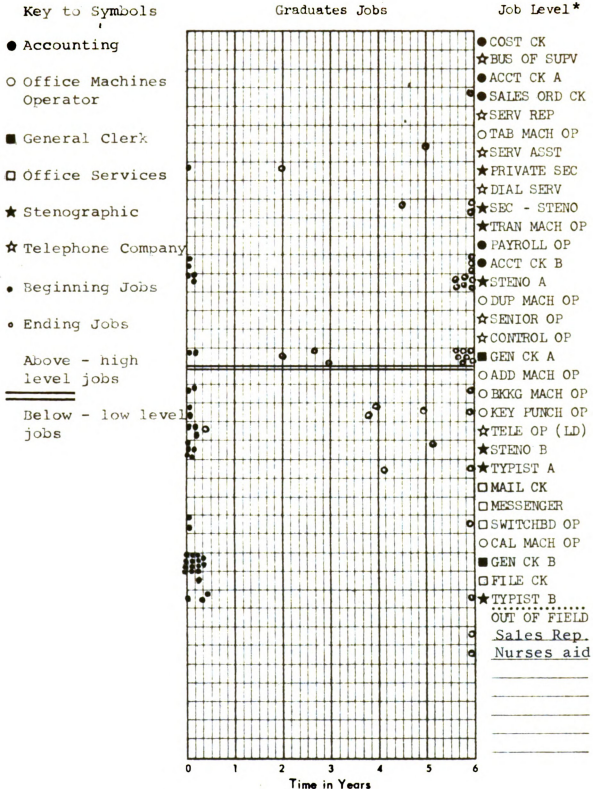
* Ranked according to average beginning salary.

Of the remaining eight graduates, three were general clerks, two were long distance telephone operators, one was a business machines operator, and one decided to leave the office field and become a sales clerk. Thirteen or 56 per cent were in the high job classification. Ten of those in the high job classification were in stenographic jobs and three were in the highest general clerk level. As will be seen later, the more specialized training given students in high school, the more apt they were to have entering and ending jobs related to their training and to achieve high job levels.

Entering and ending jobs held by Group II.--A scatter-gram of the entering and ending jobs of Group II is represented in Figure 2. Thirty-five or 88 per cent specialized in secretarial training and five or 12 per cent specialized in general clerical and bookkeeping training. Eleven or 32 per cent of the thirty-five who specialized in secretarial training entered the labor market in stenographic jobs. Four of the five who specialized in general clerical and bookkeeping training as general clerks and one entered the labor market in the accounting classification. Eight or 20 per cent entered the labor market at high level jobs with six having secretarial training and two having general clerical and bookkeeping training.

In relation to ending jobs, fifteen or 38 per cent of those who specialized in secretarial training were in stenographic jobs. All of those who specialized in general clerical and bookkeeping training were in other than

Figure 2.--A Scattergram of Group II showing entering and ending job level and job classification in the office field



* Ranked according to average beginning salary.

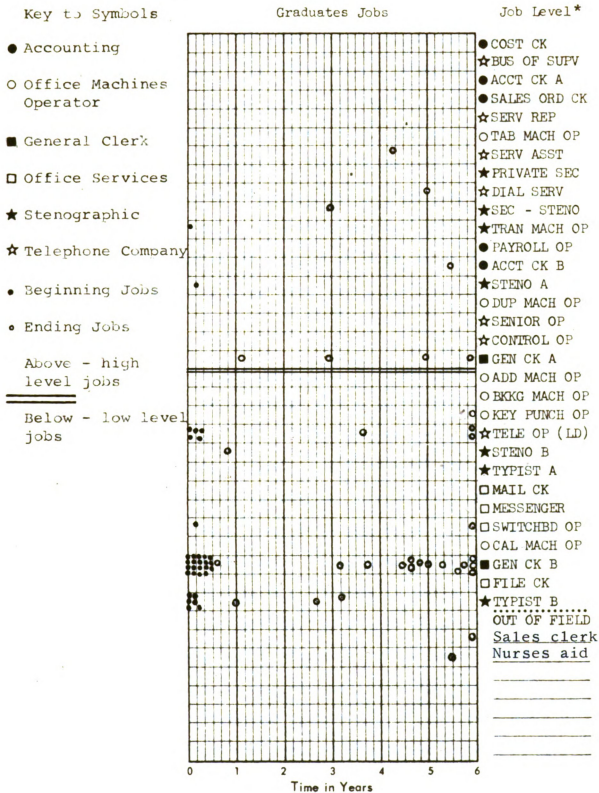
stenographic jobs. Two were in accounting jobs, one was a general clerk, one was a business machines operator, and one decided to leave the office field to become a sales representative. One graduate who specialized in secretarial training also left the office field to become a nurses aid.

Twenty-six or 65 per cent of Group II were in high level jobs ending jobs. Only nine of the twenty-six were in stenographic jobs. As will be seen later, the more specialized training given students in high school, the more apt they were to have entering and ending jobs related to their training and to achieve high job levels.

Entering and ending jobs held by Group III.--A scatter-gram of the entering and ending jobs held by Group III is represented in Figure 3. Twenty or 61 per cent specialized in secretarial training and thirteen or 39 per cent specialized in general clerical and bookkeeping training. Seven or 30 per cent of those who specialized in secretarial training entered the labor market in stenographic jobs. Two of those who specialized in general clerical and bookkeeping training entered the labor market in lower stenographic jobs and the remainder were primarily found in the low level general clerk, telephone operator, and business machines operator classification. Only two or 6 per cent were in high level jobs and both had secretarial training.

In relation to ending jobs, only five or 25 per cent of those who specialized in secretarial training were in stenographic jobs. As will be seen later, there was a

Figure 3.--A Scattergram of Group III showing entering and ending job level and job classification in the office field

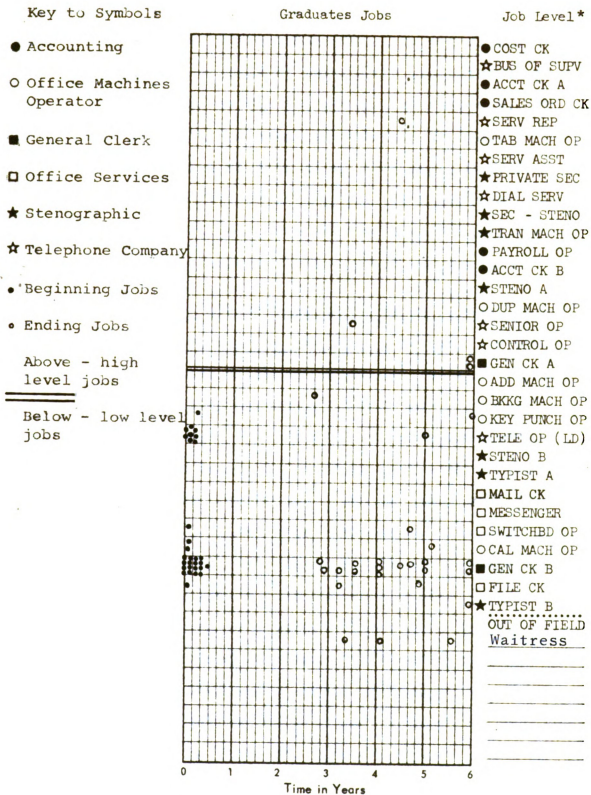


* Ranked according to average beginning salary.

significant difference between those who specialized in secretarial training in the four Groups in relation to the proportion in each Group who had entering and ending jobs in stenographic positions. All thirteen of those who specialized in general clerical and bookkeeping in this Group were in other than stenographic jobs with the largest concentration found in the low level general clerk classification. Only eight or 24 per cent were in high level jobs, and only one had secretarial training and a stenographic job. The remaining seven were primarily found in high level telephone company positions and in the high level general clerk classification.

Entering and ending jobs held by Group IV.--A scatter-gram of the entering and ending jobs held by Group IV is represented by Figure 4. Eleven or 37 per cent specialized in secretarial training, eight or 27 per cent specialized in general clerical and bookkeeping, three or 10 per cent specialized in retailing, six or 20 per cent were straight college preparatory, and two or 7 per cent straight general academic. None of the thirty graduates in Group IV entered the labor market in stenographic jobs. With great consistency the beginning job pattern for this low trained Group was to enter the labor market as low level general clerks or as long distance telephone operators. There were no graduates in this Group who entered the labor market in high level jobs.

Figure 4.--A Scattergram of Group IV showing entering and ending job level and job classification in the office field



* Ranked according to average beginning salary.

In relation to ending jobs, only one out of the eleven who specialized in secretarial training held a stenographic job, and this job was at the lowest level on the classification scale. Fifteen or half of the thirty graduates in this Group held ending jobs at the low general clerk level. This data suggests that the job mobility patterns in Group IV were held in check by a lack of sufficient training. Only four or 13 per cent of Group IV held ending jobs in high level jobs. Of the four high level jobs, two were at high general clerk level and two were at high level telephone company jobs.

Were there any significant differences between the four Groups as to entering and ending job levels?--In order to test for significant differences between the four Groups in relation to beginning and ending job levels, the Chi-square analysis was used. Table 24 presents a Chi-square analysis of the four Groups in relation to how many graduates entered at higher level jobs. The Chi-square of 14.09 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference between the four Groups. This suggests that the more office vocational training given students in high school the more apt they are to enter the office field at higher job classifications.

A Chi-square analysis of the four Groups in relation to the number of graduates who held ending jobs in the higher levels is presented in Table 25. The Chi-square of 22.95 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the

Table 24.--A Chi-square analysis of Groups I, II, III, and IV as to how many graduates entered the labor market at higher job levels

	Group I	Group II	Group III	Group IV	Total
High level	7	8	2	0	17
Low level	<u>16</u>	<u>32</u>	<u>31</u>	<u>30</u>	<u>109</u>
	23	40	33	30	126
df = 3	Sign. .05 = 7.82		$\chi^2 = 14.09$		<u>Significant</u>

Table 25.--A Chi-square analysis of Groups I, II, III, and IV as to how many graduates obtained higher level ending jobs

	Group I	Group II	Group III	Group IV	Total
High level	13	26	8	4	51
Low level	<u>10</u>	<u>14</u>	<u>25</u>	<u>26</u>	<u>75</u>
	23	40	33	30	126
df = 3	Sign. .05 = 7.82		$\chi^2 = 23.01$		<u>Significant</u>

four Groups. This suggests that the more vocational office training given students in high school, the more apt they are to obtain high level jobs during the first six years following graduation.

Were there any significant differences between those who specialized in secretarial training in the four Groups as to entering and ending job levels?--Because all four Groups contained graduates who had specialized in secretarial training, an excellent opportunity was presented to analyze the relationship between the amount of a particular type of

specialized training and beginning and ending job levels.

Of the one hundred twenty-six graduates in the sample, eighty-nine or 76 per cent specialized in secretarial training. All of the twenty-three graduates in Group I, thirty-five or 88 per cent of Group II, twenty or 66 per cent of Group III, and 11 or 37 per cent of Group IV received secretarial training.

Seven or 30 per cent of Group I, six or 17 per cent of Group II, and two or 10 per cent of Group III, of those who specialized in secretarial training entered the labor market in high level jobs. No graduates in Group IV entered high level jobs. Table 26 presents a Chi-square analysis of those who specialized in secretarial training in the four Groups in relation to the number who entered the labor market at higher job levels. The Chi-square of 5.91 was not in excess of the .05 level of confidence, therefore not suggesting any statistically significant difference among the four Groups.

Table 26.--A Chi-square analysis of those who specialized in secretarial training in the four Groups as to how many entered the labor market in high level jobs

	Group I	Group II	Group III	Group IV	Total
High level	7	6	2	0	15
Low level	<u>16</u>	<u>29</u>	<u>18</u>	<u>11</u>	<u>74</u>
	23	35	20	11	89
df = 3	Sign. .05 = 7.82		$\chi^2 = 5.91$		<u>Not Significant</u>

The ending job levels of those who specialized in secretarial training showed a different result. Thirteen or

56 per cent of Group I, twenty-one or 60 per cent of Group II, and one or 5 per cent of Group III attained ending high level jobs. No one in Group IV reached this level. Table 27 presents a Chi-square analysis of those who specialized in secretarial training in the four Groups as to how many had high level ending jobs. The Chi-square of 41.88 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among those who specialized in secretarial training in the four Groups. This suggests that the more secretarial training given students in high school, the more apt they are to obtain higher job levels during the first six years after graduation.

Table 27.--A Chi-square analysis of those who specialized in secretarial training in the four Groups as to how many had ending jobs in the higher job levels

	Group I	Group II	Group III	Group IV	Total
High level	13	21	1	0	35
Low level	<u>10</u>	<u>14</u>	<u>19</u>	<u>11</u>	<u>54</u>
	23	35	20	11	89
df = 3	Sign. .05 = 7.82		$\chi^2 = 41.88$		<u>Significant</u>

Were there any significant differences between those who specialized in secretarial training in the four Groups as to the number who entered stenographic jobs?--A Chi-square analysis was used to determine if the twenty-three graduates in Group I, thirty-five graduates in Group II, twenty graduates in Group III, and the eleven graduates in Group IV who specialized in secretarial training differed significantly

as to the number who entered stenographic jobs. Of the thirty-five graduates who entered stenographic jobs, there were eighteen or 78 per cent in Group I, eleven or 31 per cent in Group II, and seven or 35 per cent in Group III. No graduates in Group IV who specialized in secretarial training entered stenographic jobs.

A Chi-square analysis of those who specialized in secretarial training in the four Groups as to the number who entered stenographic jobs is presented in Table 28. The Chi-square of 24.43 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups. This suggests that the more secretarial training given students in high school, the more apt they are to obtain stenographic jobs upon entering the labor market.

Table 28.--A Chi-square analysis of those who specialized in secretarial training in the four Groups as to how many entered the labor market in stenographic jobs

	Group I	Group II	Group III	Group IV	Total
Entered stenographic jobs	18	11	7	0	36
Entered other office jobs	$\frac{5}{23}$	$\frac{24}{35}$	$\frac{13}{20}$	$\frac{11}{11}$	$\frac{53}{89}$
df = 3	Sign. .05 = 7.82	$\chi^2 = 24.43$		<u>Significant</u>	

Of those who held ending stenographic jobs, there were fifteen or 65 per cent in Group I, fifteen or 57 per cent of Group II, five or 25 per cent of Group III, and one or 9 per cent of Group IV. Table 29 presents a Chi-square analysis of those who specialized in secretarial training in the four Groups as to how many held ending stenographic jobs. The Chi-square of 12.46 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference between the four Groups. This suggests that the more secretarial training given students in high school, the more apt they are to hold ending stenographic jobs.

Table 29.--A Chi-square analysis of those who specialized in secretarial training in the four Groups as to how many held ending stenographic jobs

	Group I	Group II	Group III	Group IV	Total
Ending stenographic jobs	15	15	5	1	36
Other ending office jobs	$\frac{8}{23}$	$\frac{20}{35}$	$\frac{15}{20}$	$\frac{10}{11}$	$\frac{53}{89}$
df = 3	Sign. .05 = 7.82		$\chi^2 = 12.46$		<u>Significant</u>

Were there any significant differences between those who specialized in general clerical and bookkeeping training?--All of the twenty-three graduates in Group I specialized in secretarial training. However, there were five out of the forty in Group II, thirteen out of the thirty-three in Group III, and eight out of the thirty in Group IV who

specialized in general clerical and bookkeeping training. Of the twenty-six graduates who specialized in general clerical and bookkeeping training in the three Groups, only two graduates from Group II had high level beginning jobs.

In relation to high level ending jobs, the situation was considerably different. Five out of five or 100 per cent in Group II, seven out of thirteen or 54 per cent in Group III, and two out of eight or 25 per cent of Group IV reached high level ending jobs. Table 30 presents a Chi-square analysis of those who specialized in general clerical and bookkeeping in the three Groups as to how many reached high level ending jobs. The Chi-square of 6.98 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference between the three Groups. This suggests that the more general clerical and bookkeeping training given students in high school, the more apt they are to reach high level jobs within six years.

Table 30.--A Chi-square analysis of those who specialized in general clerical and bookkeeping in Groups II, III, and IV as to how many reached high level ending jobs

	Group II	Group III	Group IV	Total
High level	5	7	2	14
Low level	<u>0</u>	<u>6</u>	<u>6</u>	<u>12</u>
	5	13	8	26
df = 2	Sign. .05 = 5.99	$X^2 = 6.98$	<u>Significant</u>	

What happened to the graduates who entered the office field with no vocational office training?--Of the eleven graduates in Group IV who had no vocational office training, six or 55 per cent had taken the college preparatory course of study, three or 27 per cent had taken the retailing course of study, and two or 18 per cent had taken the general academic course of study.

Those who took the college preparatory course of study.--Four out of the six who took the college preparatory course of study entered and remained at the low level general clerk classification. Of the two remaining graduates, both entered the labor market as long distance telephone operators; one advancing to a high level senior operator job.

Those who took the retailing course of study.--All three of those who took the retailing course of study entered the labor market as long distance telephone operators; one advancing to a high level service representative job. The other two graduates left the telephone company, one to become a file clerk and the other to leave the office field and become a waitress.

Those who took the general academic course of study.--Both graduates who took the general academic course of study entered the office field as low level general clerks and remained at this level.

Therefore, this suggests that those who entered the office field with no vocational office training experienced very limited opportunities for advancement. Specifically, those graduates with no vocational office training were

restricted, almost exclusively, to beginning jobs as low level general clerks or as long distance telephone operators. Some opportunity for advancement was presented to those who took jobs as long distance telephone operators as evidenced by two graduates who were promoted to high level jobs within the telephone company classification.

Number of months in the labor market.--Of the one hundred twenty-six female graduates who entered the labor market in the office field, forty or 32 per cent worked five or more years. Table 31 presents a Chi-square analysis of the four Groups in relation to the number of months in the labor market. The Chi-square of 13.07 was not in excess of the .05 level of confidence, therefore no statistically significant difference among the four Groups was suggested.

Table 31.--A Chi-square analysis of Groups I, II, III, and IV as to the number of months in the labor market

	Group I	Group II	Group III	Group IV	Total
1-18	4	3	3	1	11
19-36	2	7	5	7	21
37-54	9	12	6	14	41
55-72	8	18	19	8	53
	<u>23</u>	<u>40</u>	<u>33</u>	<u>30</u>	<u>126</u>
df = 9	Sign. .05 = 16.92		$\chi^2 = 13.07$	<u>Not Significant</u>	

An analysis of whether graduates liked their first jobs.--Do graduates with the most vocational office training like their first jobs more than those with less vocational office training? Table 32 presents a Chi-square analysis of

Table 32.--A Chi-square analysis of Groups I, II, III, and IV as to whether they like their first jobs

	Group I	Group II	Group III	Group IV	Total
Liked	21	36	30	21	108
Disliked	2	4	3	9	18
	<u>23</u>	<u>40</u>	<u>33</u>	<u>30</u>	<u>126</u>
df = 3	Sign. .05 = 7.82	$\chi^2 = 7.50$		<u>Not Significant</u>	

the four Groups as to whether they liked their first job. The Chi-square of 7.50 was not in excess of the .05 level of confidence, therefore no statistically significant difference among the four Groups was suggested.

Group I tended to like the intrinsic characteristics of the job itself and not to dislike anything. Group IV, on the other hand, tended to like and dislike other factors. For example, Group IV tended to like and dislike wages, other economic factors, human relations, supervision, hours, and the total work environment. This data seems to suggest that Group I (highest number of vocational office courses) perceived their actual duties on the job as the primary consideration in whether the job is liked.

Employment status at the end of six years.--A percentage comparison of the four Groups in relation to their present employment status is presented in Table 33. Fifty-three per cent of the graduates were housewives. Only Groups III and IV had graduates who were unemployed but seeking employment.

Table 33.--A percentage comparison of Groups I, II, III, and IV as to their present employment status

Classifi- cation	Group I	Group II	Group III	Group IV	Total
Employed (not married)	4	15	18	10	13
Housewife (full-time job)	26	32	21	13	24
Housewife (part-time job)	4	10	9	7	8
Unemployed (seeking work)			3	7	2
Housewife	65	42	48	63	53
Total	99	99	99	100	100

Opinions Held About Course of Study

Number who felt prepared for work.--All the graduates in Group I stated that they felt prepared for work. There were thirty-seven or 93 per cent in Group II, twenty-six or 79 per cent in Group III, and twenty or 67 per cent in Group IV. Table 34 presents a Chi-square analysis of the four Groups in relation to the number of graduates who felt prepared for work. The Chi-square of 13.10 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups.

Further investigation showed that the Groups with the most vocational office training tended to state this for feeling prepared. Table 35 presents a percentage comparison of those who felt prepared in the four Groups in relation to

Table 34.--A Chi-square analysis of Groups I, II, III, and IV as to the number who felt prepared for work

	Group I	Group II	Group III	Group IV	Total
Felt prepared	23	37	26	20	106
Did not feel prepared	<u>0</u>	<u>3</u>	<u>7</u>	<u>10</u>	<u>20</u>
	23	40	33	30	126
df = 3	Sign. .05 = 7.82	$X^2 = 13.10$		<u>Significant</u>	

their reasons. All the graduates in Group I gave vocational office training as their reason for feeling prepared for work.

Table 35.--A percentage comparison of those who felt prepared for work in Groups I, II, III, and IV as to their reasons

Classification	Group I	Group II	Group III	Group IV	Total
Vocational office training	100	97	65	45	80
Vocational office training & General Education			19	5	6
General Education			4	30	7
Had high school diploma		3	12	20	7
Total	100	100	100	100	100

In order to determine if the Groups differed significantly as to their reasons for feeling prepared for work after graduation, those who felt prepared for work were put into two categories. Those who felt vocational office

training or a combination of vocational office training and general education was the primary reason they felt prepared for work were put into one category. Those who felt prepared for work simply because they had obtained a high school diploma or because of their general education were put in another category. A Chi-square analysis used to test for significance between the four Groups is presented in Table 36. The Chi-square of 8.99 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups. This suggests that a higher proportion of those graduates in the Groups with more vocational office training felt prepared because of that very vocational office training.

Table 36.--A Chi-square analysis of those who felt prepared for work after graduation because of their vocational office training or a combination of vocational office training and general education in Groups I, II, III, and IV as against those who felt prepared because of their general education or simply by virtue of having a high school diploma

	Group I	Group II	Group III	Group IV	Total
Felt prepared because of vocational office training or combination of vocational office training and general education	23	36	22	10	91
Felt prepared because of general education or by virtue of high school diploma	<u>0</u> 23	<u>1</u> 37	<u>4</u> 26	<u>10</u> 20	<u>15</u> 106
df = 3	Sign. .05 = 7.82	$\chi^2 = 8.99$		<u>Significant</u>	

Further analysis was conducted in relation to those who did not feel prepared for work after graduation in order to determine their reasons for feeling this way. Seventeen out of the twenty graduates or 85 per cent who did not feel prepared, stated that they needed more vocational office training. Three or 15 per cent stated that they simply did not like the office field of employment and, therefore, could not feel prepared for something they did not like. It should be emphasized that seventeen or 85 per cent of those who did not feel prepared for work after graduation were in the two Groups with the lowest number of vocational office courses.

Course of study graduates would take if they were to return to high school.--The graduates were asked the following question: "If you had an opportunity to go to high school again, and assuming that the school taught all kinds of courses, what sort of courses would you take?" A percentage comparison of the four Groups in relation to the course of study they would take if they were to return to high school is presented in Table 37. The overwhelming majority of the graduates who entered the office field after graduation with no additional training stated that they would take the vocational office curriculum.

The Typical Graduate in this Sample

Although the graduates in this sample received varying amounts and types of vocational office training, they possessed many characteristics in common, and, therefore, can be described in normative terms. For example, they had similar

Table 37.--A percentage comparison of Groups I, II, III, and IV as to the course of study they would take if they were to return to high school

Classification	Group I	Group II	Group III	Group IV	Total
Vocational office	96	82	88	73	84
College preparatory		8	6	27	10
General academic		10			3
Homemaking	4		3		2
Don't know			3		1
Total	100	100	100	100	100

socio-economic backgrounds, grade point averages, and they all entered the office field after graduation showing a manifested common vocational goal. A description such as this can be helpful to those, such as high school counselors, who must form some picture of what the typical female "looks like" who enters the office field after graduation without receiving any additional training.

The typical graduate in this sample can be described as follows: she comes from a lower-middle class home. Her father had 9.19 years of schooling and her mother 10.7. She took 5.57 vocational office courses and tended to specialize in secretarial training. She achieved an overall grade point average at graduation of 2.31 based on a four point system. She was an average student. Before graduation, she worked 11.82 months in initial jobs.

She worked forty hours per week and her first salary was \$48.82 a week, and her last salary was \$68.39. She worked a total of 48.63 months out of a possible 72 months

and 47.17 months of this time was in the office field. She did not work all of the 72 months because of her marriage and/or childbearing. She held 1.79 jobs with different employers and 2.27 jobs, including jobs with the same employer. She worked .16 months on jobs outside the Lansing labor market. She had a total of 2.26 jobs.

She liked all of her jobs and attributes this to her vocational office training. She feels as though she has an understanding of how to meet and work with people and she again attributes this to vocational office training. This is not surprising since her educational goal in high school was to finish and assume her vocational goal which was to work in the office field.

At the end of the six-year period after graduation she is married. She and her husband belong to 3.5 organizations; church and some organization connected with her or her husband's job. She has moved her residence 2.96 times during the six years, and is now unemployed and is well established as a homemaker. However, according to most experts, she will return to the labor market at various intervals during her adult life.

Beginning Career Patterns

The beginning career patterns of the one hundred twenty-six female high school graduates who entered the labor market in the office field are summarized as follows:

Stable beginning career pattern.--The sequence in this type of beginning career pattern is one of entering the

labor market in the office field in low or high job levels and ultimately experiencing upward mobility in somewhat related jobs. She may take occasional time out for marriage and/or childbearing. If she started in the higher job levels she is still considered in this pattern since upward mobility is more difficult at this level. For example, a private secretary has difficulty in moving much further in six years although she might increase her responsibilities within this classification.

Dead-end beginning career pattern.--The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the lower level jobs and remaining on that same level or experience mobility in a downward direction. She may take occasional time out for marriage and/or childbearing.

Unstable beginning career pattern.--The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the low or high job levels and experiencing a succession of unrelated jobs or perhaps leaving the office field for employment in some other occupation.

Temporary worker beginning career pattern.--The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the low or high job levels and leaving the labor market completely for the remainder of the six-year period within one year after graduation.

A percentage comparison of the four Groups in relation to their beginning career patterns is presented in Table 38.

Table 38.--A percentage comparison of Groups I, II, III, and IV as to their beginning career patterns

Beginning career patterns	Group I	Group II	Group III	Group IV	Total
Stable	74	78	27	17	49
Dead-end	17	12	52	57	34
Unstable	4	10	18	27	15
Temporary worker	4		3		2
Total	99	100	100	100	100

The stable pattern is characteristic of Groups I and II while the dead-end pattern is characteristic of Groups III and IV. Groups I and II had the most vocational office training and Groups III and IV the least. Table 39 presents a Chi-square analysis of the four Groups in relation to their beginning career patterns. The Chi-square of 41.86 was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference among the four Groups.

Table 39.--A Chi-square analysis of Groups I, II, III, and IV as to their beginning career patterns

	Group I	Group II	Group III	Group IV	Total
Stable	17	31	9	5	62
Dead-end	4	5	17	17	43
Unstable	1	4	6	8	19
Temporary worker	1	0	1	0	2
	<u>23</u>	<u>40</u>	<u>33</u>	<u>30</u>	<u>126</u>
df = 9	Sign. .05 = 16.92		X ² = 41.86		<u>Significant</u>

There were forty-six graduates who participated in the office cooperative program. Of the eleven in Group I, ten had stable beginning career patterns and one had a dead-end pattern. Of the twenty-five in Group II, twenty-one or 84 per cent had stable patterns, three had dead-end patterns, and one had an unstable pattern. Of the nine in Group III, only one had a stable pattern, seven or 78 per cent had dead-end patterns, and one was unstable. There was only one cooperative trainee in Group IV and her pattern was unstable.

Summary

There was a significant difference between the four Groups in their labor market behavior after graduation. A significantly higher proportion of those in Groups with more vocational office training felt prepared for work, obtained high level beginning and ending jobs in the office field, and were identified as having characteristically stable beginning career patterns.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Statement of the problem.--This study was concerned with determining the effect of varying amounts and types of vocational office training on the subsequent beginning career patterns of female high school graduates who entered the office field within six months following graduation with no additional training. The following sub-problems were investigated in this study:

1. What effect does the amount and type of vocational office training have on entering and ending jobs of the graduates?
2. What effect does the amount and type of vocational office training have on job satisfaction viz., which graduates felt prepared for work after graduation and which graduates liked their first job?
3. What effect does the amount and type of vocational office training have on the beginning career patterns of the graduates viz., are there distinct beginning career patterns developed by the graduates?
4. Can distinct career patterns be plotted or discerned?
5. What variables other than the amount and type of vocational office training seemed to be influencing the beginning career patterns of the graduates, e.g., the amount and type of initial work experience before graduation, and the educational and vocational plans of the graduates as given in their high school records?

Purpose of the study.--The purpose of the study was threefold: (1) to provide information to those concerned with the education of high school females pertaining to the effects of vocational office training on the development of subsequent beginning career patterns, (2) to utilize sociological "models" that illustrate career patterns in the analysis of the beginning career patterns of female high school graduates who enter the office field, and (3) to utilize these findings as a part of a larger study of vocational education in Michigan which will help determine the direction of vocational education in the immediate future and in the years beyond.

Need for the study.--The need for this study is apparent when consideration is given to the following facts:

1. There is an increased demand for office workers.
2. There is a need for an evaluation to determine if the vocational office training given at the high school level is sufficient for obtaining some measure of success in the office field after graduation. This evaluation must be completed in light of recent social and economic change.
3. There is a need for more meaningful analytical tools by which to evaluate the effectiveness of vocational office training on the subsequent labor market behavior of high school graduates.

The demand for office workers continues to grow in spite of new equipment and methods designed to handle a rising volume of work. According to the 1959 edition of the Occupational Outlook Handbook:

In 1910, only 1 in 20 American workers was engaged in clerical work. By 1940, the proportion of clerical workers had risen to 1 in 10 and, by 1950, to 1 in 8 employed workers.¹

According to the 1961 edition of the Occupational Outlook Handbook, there were nearly 10 million people who did clerical or some closely related kind of work in 1960.² More important, the Handbook states that hundreds of thousands of openings will occur in clerical and related occupations each year during the 1960's. The Handbook shows the particular importance of clerical work for women by stating that "two-thirds of all clerical workers are women, and almost one-third of all women who have jobs of any kind do clerical work."³

There is a need for evaluation of the effectiveness of vocational office training in light of recent social and economic change. The responsibility of keeping pace with current social, economic, and technical trends is shared by high school administrators, business education teachers, businessmen, parents, and society in general. School administrators in particular realize that vocational curriculum planning is not complete until the worth of result has been evaluated.

Technological change, increasing mobility of the population, increasing size of the work force, greater role

¹U. S. Bureau of Labor Statistics (1959), op. cit.

²U. S. Bureau of Labor Statistics (1961), op. cit.

³Ibid., p. 274.

of women in the work force, and urbanization of the population have brought on many changes in the American economy in recent years. In addition, the increasing young adult population has been burdened with a disproportionate unemployment rate. This unemployment rate among young adults has been intensified by our evolution from an industrial to a technological society. Although bringing many benefits to society, this technological age has created new problems.

The President's Panel of Consultants on Vocational Education presented its report to President John F. Kennedy on November 28, 1962. The report states:

It is becoming increasingly clear that there is no real assurance now that mastery of an occupation, once achieved, will last any worker a lifetime. Although jobs may change, a worker who has mastered the skills of a trade or occupation and who has kept himself abreast of new techniques and developments can reasonably expect to continue in his trade throughout his working life. Preemployment training of youth must therefore provide a solid occupational foundation. In addition, the potential member of the labor force must be well aware of his responsibility for his own self-development if he is to continue to keep up to date in his occupation. Since more and more workers will need a program of lifelong learning, continuing educational opportunities must be provided to cope with occupational change. Vocational educators must train more broadly for career patterns, for a lifelong sequence of employment opportunities.¹

Educators are not in complete agreement as to what part of the high school educational program should be allotted to general and what to specialized education, and when the latter should begin. Stratemeyer, Forkner, McKim, and Passow in their book, Developing a Curriculum for

¹U. S., Office of Education, op. cit.

Modern Living state:

The fundamental issues which underlie the choices made by those who guide the learning experiences of children and youth must be re-examined in terms of new findings and changing conditions. Alternatives for resolving basic curriculum problems will have to be critically studied and appraised to determine how well they actually contribute to the achievement of desired ends. Ways will have to be found for using the constantly growing body of research reported by educators and specialists in related fields. But at the same time, those who work most closely with learners must extend their competencies in studying the potency of school-guided experiences for helping individuals cope with the persistent life situations they face.¹

There is a need for more meaningful analytical tools for evaluating the results of vocational education. Many general texts in the field of guidance, curriculum, and high school administration have emphasized the potential values of local follow-up studies of high school graduates. In addition, follow-up studies of high school graduates have been recommended through publications of the U. S. Office of Education, state departments of education, and organizations, such as the National Association of Secondary-School Principals and the American Council on Education.

Thus, it can be established that follow-up studies are of considerable value when attempting to evaluate the effectiveness of vocational training. However, there are many limitations of follow-up studies as typically applied.

One of the limitations of most follow-up studies, according to a study by Robert Lowry, appears to be the:

¹Stratemeyer, Forkner, McKim, and Passow, op. cit.

. . . tendency for subjects who had different interests, experiences, and abilities, as well as different degrees of scholastic success in high school, to be converted for convenience of analysis of interpretation, into standard units, so to speak, that were seldom differentiated in terms of previous school success, school experiences, and other variables.¹

A challenging question remains to be answered according to Lowry:

What relationships exist between the nature, quality, and extent of school success and experiences, on the one hand, and after-school success and experience, on the other hand?²

In order to attempt to answer this challenging question, there must be a recognition that the determinants of career patterns are multi-dimensional. These dimensions are related to the graduates' scholastic achievement, family background, educational and vocational goals, etc., all of which play some role in career development.

Data collection and analysis.--The main steps followed in this study are as follows:

1. Securing the cooperation of the Lansing public and parochial superintendents of schools and school administrators.
2. Locating the graduates of the Class of 1956 and recording permanent record card data.
3. Developing, pre-testing, and refining the mail questionnaire and interview form.

¹Lowry, op. cit., p. 180.

²Ibid., p. 182.

4. Selection of sample for further study.--To establish which female high school graduates had entered the office field after graduation without receiving any additional training other than what might have been provided by an employer, the mail questionnaire (see Appendices B and C) was sent to all female graduates from the Class of 1956. Of the three hundred sixty-six female high school graduates, three hundred sixty-two responded providing a 99 per cent return.

Of the three hundred sixty-two graduates who responded, one hundred fifty were qualified in all respects for the sample. However, fifteen graduates who lived in states other than Michigan were excluded from the sample in order to keep labor market conditions somewhat constant for the subjects under investigation. Of the one hundred thirty-five remaining, one hundred twenty-two were interviewed and one hundred twenty were usable. Six graduates completed the interview form by mail because of extreme difficulty in arranging interview appointments. Seven graduates refused to be interviewed or could not be contacted. Therefore, there were one hundred twenty-six in the sample.

Selection of Groups for further study.--The one hundred twenty-six graduates who were included in the sample were subsequently divided into four Groups on the basis of the amount of vocational office training they had received in high school. Four Groups were used in order to attain the greatest amount of discrimination between graduates with various levels of vocational office preparation. Yet, more

than four Groups would not have allowed a sufficient number of graduates in each Group for the desired statistical computation.

The four Groups were as follows: Group I was composed of twenty-three graduates who had completed from between ten and thirteen vocational office courses; Group II was composed of forty graduates who had completed from between seven and nine vocational office courses; Group III was composed of thirty-three graduates who had completed from between four and six vocational office courses; and Group IV was composed of thirty graduates who had completed from between one and three vocational office courses. Graduates with no vocational office courses were included in the latter group.

Analysis of data.--In order to plot or discern the beginning career patterns of the female high school graduates who entered the office field, a scale was developed of office jobs ranked according to the average beginning salary paid these jobs. This scale served as a model for facilitating the detection of any sequence of jobs that followed some orderly development. Attention was focused on mobility and certain aspects of success as related to job changes within and in and out of the office field over the six-year period June, 1956 to June, 1962.

Sample background data, initial employment (employment before graduation from high school), and employment after graduation were analyzed in terms of numerical and percentage comparisons, Chi-square analysis, and correlation. Statistical significance was set at the .05 level

of confidence. Computations were not carried beyond the second decimal point and in many cases only whole numbers were reported to facilitate interpretation.

Limitations of the study.--This study was limited to graduates of the Class of 1956 from the three public and two parochial schools in Lansing, Michigan. These five schools constituted the total number of high schools in Lansing in 1956.

The study was concerned solely with the amount and type of vocational office training obtained by the graduates in the 10th, 11th, and 12th grades. Other curricula were considered only incidentally in computing grade point averages and in classifying combinations of vocational office training and some other course of study. The study was not concerned with the instructional methods employed in teaching vocational office subjects and related activities in the public and parochial schools of Lansing, Michigan.

Only those graduates who entered the office field within six months after graduation and who obtained no additional training other than what might have been provided by an employer within the business concern. The period of time under study was limited to a span of six years or from June, 1956 to June, 1962. Thus, ample time was provided for the graduates in the study to develop the beginning years of a career pattern yet not be so far removed from school days that they could still answer significant questions for the study.

Summary of Findings

By examination of sample background data related to the sample, initial employment, and employment after graduation of the one hundred twenty-six female high school graduates, the following summary statements were made in light of the five sub-problems posed earlier:

Sub-problem one.--What effect does the amount and type of vocational office training have on entering and ending jobs of the graduates?

1. Entering job level.--Graduates in the four Groups were compared as to their job level upon entering the labor market in the office field. A Chi-square analysis suggested a statistically significant difference between the four Groups. Seven or 22 per cent of Group I, eight or 20 per cent of Group II, and two or 6 per cent of Group III entered the office field at high level jobs. There were no graduates in Group IV who entered the office field in high level jobs. This suggests that the more vocational office training given students in high school, the more apt they are to enter the office field in high level jobs.

2. Ending job level.--Graduates in the four Groups were compared as to their ending job level. A Chi-square analysis suggested a statistically significant difference between the four Groups. Thirteen or 56 per cent of Group I, twenty-six or 65 per cent of Group II, eight or 24 per cent of Group III, and four or 13 per cent of Group IV held

ending high level jobs. This suggests that the more vocational office training given students in high school, the more apt they are to hold ending high level jobs.

3. Entering job level of the graduates who specialized in secretarial training.--Of the one hundred twenty-six graduates in the sample, eighty-nine or 76 per cent specialized in secretarial training. All of the twenty-three graduates in Group I, thirty-five or 88 per cent of Group II, twenty or 66 per cent of Group III, and eleven or 37 per cent of Group IV received secretarial training. The graduates who specialized in secretarial training in the four Groups were compared as to their entering job level. A Chi-square analysis did not suggest any significant difference between the four Groups. Seven or 30 per cent of Group I, six or 17 per cent of Group II, and two or 10 per cent of Group III of the graduates who specialized in secretarial training entered the office field in high level jobs. No graduates who specialized in secretarial training in Group IV entered high level jobs. This suggests that the amount of secretarial training given high school students does not significantly affect their entering job level.

4. Ending job level of the graduates who specialized in secretarial training.--Graduates who specialized in secretarial training in the four Groups were compared as to their ending job level. A Chi-square analysis suggested a statistically significant difference between the four Groups. Thirteen or 56 per cent of Group I, twenty-one or 60 per cent

of Group II, and one or 5 per cent of Group III attained ending high level jobs. No graduates in Group IV who specialized in secretarial training held ending high level jobs. This suggests that the more secretarial training given students in high school, the more apt they are to hold ending high level jobs.

5. Graduates who entered stenographic jobs who specialized in secretarial training.--Graduates who specialized in secretarial training would normally be expected to enter stenographic jobs. Was this so? A Chi-square analysis suggested a statistically significant difference between the four Groups. Eighteen or 78 per cent of Group I, eleven or 31 per cent of Group II, and seven or 35 per cent of Group III entered stenographic jobs. No graduates who specialized in secretarial training in Group IV entered stenographic jobs. This suggests that the more secretarial training given high school students, the more apt they are to enter stenographic jobs.

6. Graduates who held ending stenographic jobs who specialized in secretarial training.--The graduates who specialized in secretarial training in the four Groups were compared to see if any differences existed in relation to those who entered stenographic jobs. A Chi-square analysis suggested a statistically significant difference between the four Groups. Fifteen or 65 per cent in Group I, fifteen or 57 per cent of Group II, five or 25 per cent of Group III, and one or 9 per cent of Group IV held ending stenographic

jobs. This suggests that the more secretarial training given high school graduates, the more apt they are to hold ending stenographic jobs.

7. Were there any significant differences between those who specialized in general clerical and bookkeeping training?--All of the twenty-three graduates in Group I specialized in secretarial training. However, there were five out of the forty in Group II, thirteen out of the thirty-three in Group III, and eight out of the thirty in Group IV who specialized in general clerical and bookkeeping training. Of the twenty-six graduates who specialized in general clerical and bookkeeping training in the three Groups, only two graduates from Group II had high level beginning jobs. The overwhelming majority entered the office field as low level general clerks, business machine operators, or long distance telephone operators.

In relation to ending jobs, those who specialized in general clerical and bookkeeping training remained in the general clerk, business machines, and telephone company classifications. However, when the three Groups were compared as to ending job level, a Chi-square analysis suggested a significant difference between the three Groups. Five out of five or 100 per cent in Group II, seven out of thirteen or 54 per cent in Group III, and two out of eight or 25 per cent of Group IV reached high level ending jobs. This suggests that the ^{MORE}~~amount~~ of general clerical and bookkeeping training given high school students, the more apt they are to hold

ending high level jobs.

8. What happened to the graduates who entered the office field with no vocational office training?--Of the eleven graduates in Group IV who had no vocational office training, six or 55 per cent had taken the college preparatory course of study, three or 27 per cent had taken the retailing course of study, and two or 18 per cent had taken the general academic course of study.

Of those who took the college preparatory course of study, four out of the six entered the office field and remained at the low level general clerk classification. Of the two remaining graduates, both entered the labor market as long distance telephone operators; one advancing to a high level senior operator job.

All three of those who took the retailing course of study entered the labor market as long distance telephone operators, one advancing to a high level service representative job. The other two graduates left the telephone company, one to become a file clerk and the other to leave the office field and become a waitress. Of the two graduates who took the general academic course, both entered the office field as low level general clerks and remained at that level. Therefore, this suggests that graduates who enter the office field with no vocational office training enter and characteristically remain on low level jobs during the first six years after graduation.

Sub-problem two.--What effect does the amount and type of vocational office training have on job satisfaction viz., which graduates felt prepared for work after graduation and which graduates liked their first job?

1. Like or disliked first job.--The four Groups were compared as to the number who liked their first job. A Chi-square test did not suggest any significant difference between the Groups. However, Group I tended to like the intrinsic characteristics of the job and not particularly dislike anything. Group IV, on the other hand, tended to like and dislike the following factors: human relations, wages, other economic factors, hours, supervision, and the total work environment.

2. Number who felt prepared for work.--The four Groups were compared as to the number who felt prepared for work after graduation. A Chi-square test suggested a significant difference between the Groups. All the graduates in Group I felt prepared for work. There were thirty-seven or 93 per cent in Group II, twenty-six or 79 per cent in Group III, and twenty or 67 per cent of Group IV who felt prepared for work after graduation.

There was a significant difference between those who felt prepared for work after graduation in the four Groups in relation to their reasons for feeling prepared. Those graduates in Groups with more vocational office training felt prepared because of their vocational office training or a combination of vocational office training and general education. Those graduates in Groups with less vocational

office training felt prepared for work after graduation because of their general education or by virtue of having a high school diploma.

Further analysis was conducted in relation to those who did not feel prepared for work after graduation in order to determine the reasons for feeling this way. Seventeen out of the twenty who did not feel prepared or 85 per cent stated that they needed more vocational office training. Seventeen or 85 per cent of the twenty who did not feel prepared for work after graduation were in the two Groups with the lowest number of vocational office courses. Therefore, this suggests that the more vocational office training given high school students, the more apt they are to feel prepared for work after graduation. Of equal importance, those who did not feel prepared for work after graduation, stated the lack of vocational office training as the primary reason for not feeling prepared.

3. What course of study would the graduates take if they were to return to high school.--Perhaps the best test of what effect of the amount and type of vocational office training has on job satisfaction is what course of study the graduates would take if they were to return to high school. An overwhelming majority stated that they would take vocational office training. Ninety-six per cent of Group I, 82 per cent of Group II, 88 per cent of Group III, and 73 per cent of Group IV stated that they would take the vocational office course of study if they were to return to high school. This

constituted 84 per cent of the one hundred twenty-six female graduates.

Sub-problem three.--What effect does the amount and type of vocational office training have on the beginning career patterns of the graduates viz., are there distinct beginning career patterns developed by the graduates?

Distinct beginning career patterns were developed by the graduates in the four Groups. A career pattern model was used in this study to systematically observe the labor market behavior of female high school graduates who entered the office field without additional formal training. Consequently, the effects of the amount and type of vocational office training were manifested in distinct beginning career patterns for the four Groups over the six-year period studied.

The actual beginning career patterns are presented later in this chapter. However, in order to help clarify a host of variables related to the beginning career patterns of the graduates in this sample, a picture of the typical graduate was found to be useful. The typical graduate in this sample was described as follows: she came from a lower-middle class home; her father had 9.19 years of schooling and her mother 10.7; she took 5.57 vocational courses and tended to specialize in the secretarial course of study; she achieved an overall grade point average at graduation of 2.31 based on a four point system; she was an average student. Before graduation, she worked 11.82 months in initial jobs.

She worked forty hours per week and her first salary was \$48.63 a week and her last salary was \$68.39. She worked a total of 48.63 months out of a possible 72 months and 47.17 months of this time was in the office field; she did not work all of the 72 months because of her marriage and/or child-bearing; she held 1.79 jobs with different employers and 2.27 jobs, including jobs with the same employer; she worked only .16 months on jobs outside the Lansing labor market.

She liked most of her jobs and attributes this to her vocational office training. She feels as though she has an understanding of how to meet and work with people and she again attributes this to vocational office training received in high school. This is not surprising since her educational goal in high school was to finish and assume her vocational goal which was to work in the office field.

At the end of the six-year period after graduation she is married. She and her husband belong to 2.5 organizations; church and some organization connected with her or her husband's work. She has moved her residence 2.96 times during the six years and is now unemployed and well established as a homemaker. However, according to most experts, she will return to the labor market at various intervals during her adult life.

Sub-problem four.--Can distinct career patterns be plotted or disconcerned?

The beginning career patterns of the one hundred twenty-six female high school graduates who entered the labor

market in the office field are summarized as follows:

Stable beginning career pattern.--The sequence in this type of beginning career pattern is one of entering the labor market in the office field in low or high level jobs and ultimately experiencing upward mobility in somewhat related jobs. She may take occasional time out for marriage and/or childbearing. If she started in the high level jobs she is still considered in this pattern since upward mobility is more difficult at this level. For example, a private secretary has difficulty in moving much further in six years although she might increase her responsibilities within this classification.

Dead-end beginning career pattern.--The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the low level jobs and remaining on that same level or experiencing mobility in a downward direction. She may take occasional time out for marriage and/or childbearing.

Unstable beginning career pattern.--The sequence in this type of beginning career pattern is one of entering the labor market in the office field at the low or high level jobs and experiencing a succession of unrelated jobs and perhaps leaving the office field for employment in some other occupation.

Temporary worker beginning career pattern.--The sequence in this type of beginning career pattern is one of

entering the labor market in the office field at the low or high level jobs and leaving the labor market completely for the remainder of the six-year period within one year after graduation.

The four Groups were compared as to the number who experienced the different beginning career patterns. A Chi-square analysis suggested a significant difference. The stable beginning career pattern was characteristic of Groups I and II. Seventy-four per cent of Group I and 78 per cent of Group II experienced this pattern. The dead-end beginning career pattern was characteristic of Groups III and IV. Fifty-two per cent of Group III and 57 per cent of Group IV experienced this pattern.

The unstable beginning career pattern was more characteristic of Groups III and IV. Eighteen per cent of Group III and 27 per cent of Group IV experienced this pattern while only 4 per cent of Group I and 10 per cent of Group II were identified as experiencing this pattern. The temporary worker beginning career pattern was not important in that only 4 per cent of Group I and 3 per cent of Group III experienced this pattern.

Sub-problem five.--What variables other than the amount and type of vocational office training seemed to be influencing the beginning career patterns of the graduates, e.g., the amount and type of initial work experience before graduation and the educational and vocational plans of the graduates as given in their high school records?

Many variables other than the amount and type of vocational office training were investigated and subsequently eliminated as influences on the beginning career patterns of the graduates in the four Groups. The findings related to these variables are presented below.

1. Age at graduation.--Ninety per cent of the graduates reached their eighteenth or nineteenth birthday during 1956, the year of graduation. Therefore, the overwhelming majority of the graduates were not affected by Child Labor Laws.

2. Graduate's socio-economic level.--A Chi-square analysis did not suggest any significant differences between the four Groups as to socio-economic level. The largest concentration was found in the lower-middle class. This group accounted for 66 per cent of the one hundred twenty-six graduates.

3. Grade point average at graduation.--A Chi-square analysis did not suggest any significant difference between the four Groups as to the grade point averages at graduation. Eighty-one per cent of the one hundred twenty-six graduates were found to be in the good and average or "B" and "C" categories. The overall grade point average was found to be 2.31 on a four point system.

4. Number of months in the labor market.--A Chi-square analysis did not suggest any significant difference between the four Groups as to the number of months in the labor

market. The average graduate worked 48.63 months out of a possible seventy-two months and 47.17 months of this time was in the office field.

5. Employment status at the end of the six-year period under study.--There were no differences between the four Groups in relation to their employment status at the end of the six-year period. Approximately half of the graduates were employed and the other half were housekeeping. Thirteen per cent were employed full-time but not married, 24 per cent were employed full-time but married, 8 per cent were employed part-time and housekeeping, and 2 per cent from Groups III and IV were unemployed seeking work.

6. High schools attended by graduates.--A Chi-square analysis suggested a significant difference between the four Groups in relation to the high schools they attended. Further investigation, however, showed the following two relationships: (1) there was no significant difference between Groups I and II and Groups III and IV as to high school attended, and (2) there were no significant differences between the grade point averages and high schools attended, and socio-economic level and high schools attended. Therefore, high schools attended was disregarded as an influence on the beginning career patterns of the graduates in the four Groups.

7. Miscellaneous background variables.--There were no differences upon inspection of the data related to the four Groups as to the number of siblings in family, parental

or guardian relationships, days absent, or extra-curricular activities while attending high school.

Some variables other than the amount and type of vocational office training were investigated and subsequently found to have had a possible influence on the beginning career patterns of the graduates in the four Groups. The findings related to these variables are presented below.

1. Amount and type of initial work experience.--
Eleven or 48 per cent of Group I, twenty-five or 62 per cent of Group II, nine or 27 per cent of Group III, and one or 3 per cent of Group IV participated in the office cooperative program during their senior year in high school. A Chi-square analysis suggested a significant difference between the four Groups. Therefore, cooperative office training may have influenced the beginning career patterns of the graduates in the four Groups.

The four Groups were further compared on initial office experience by pooling those who had participated in the office cooperative program with those who had obtained other initial office jobs. A Chi-square analysis suggested a significant difference between the Groups. Thirteen or 56 per cent of Group I, twenty-nine or 72 per cent of Group II, fourteen or 42 per cent of Group III, and six or 20 per cent of Group IV had some initial office experience. Therefore, initial office experience may have influenced the beginning career patterns of the graduates in the four Groups.

All initial work experience was combined to determine if the four Groups differed as to the number who had some work experience. A Chi-square analysis suggested, once again, a significant difference between the Groups. Eighty-one per cent of the one hundred twenty-six graduates had some initial work experience. Yet, a greater proportion of those in the Groups with more vocational office training had initial work experience. Therefore, office cooperative training, other initial office experience, and all initial work experience combined was demonstrated to be a possible influence on the beginning career patterns of the graduates in the four Groups.

2. Educational plans after graduation.--Examination of the school records showed that those with more vocational office training had more realistic educational plans in relation to their labor market behavior after graduation. For example, 65 per cent of Group I desired only to finish high school, 30 per cent of Group IV planned to attend college, and 40 per cent of Group IV stated no educational plans. Of course, all went to work in the office field within six months after graduation.

3. Vocational plans after graduation.--Examination of the school records showed that those with more vocational office training had more realistic vocational plans in relation to their behavior after graduation. For example, 87 per cent of Group I and only 13 per cent of Group IV planned to enter the office field. Forty-three per cent of Group

IV did not state any plans.

Conclusions

By an analysis of the data and of the summary statements, the following conclusions were drawn:

1. There was a statistically significant difference between the four Groups in their labor market behavior after graduation, viz., those with more vocational office training felt prepared for work, obtained high level entering and ending jobs in the office field, and were identified as having experienced stable beginning career patterns. Consequently, those graduates with more vocational office training were able to avoid the dead-end and unstable beginning career patterns characteristic of those graduates with less vocational office training.

2. There is no substitute for high school vocational office training when entering the office field after graduation without additional formal training. The overwhelming majority of the graduates in this study stated that if they were to return to high school, they would take vocational office training.

3. The findings in this study indicate that vocational office training obtained in high school is a major determinant of beginning career patterns for female high school graduates who enter the office field without additional training. Therefore, professional educators, knowing the amount of vocational office training or preparation, can make meaningful statements concerning the type of beginning career pattern which

a given graduate would normally be expected to experience upon entering the labor market.

4. The four beginning career patterns which emerged from the analysis of the labor market behavior of the graduates in this sample, viz., stable, dead-end, unstable and temporary worker, add significantly to previous findings about beginning career development of the office worker. Instead of references being made to particular types of jobs, job duties, mobility patterns, etc., in the analysis and prediction of career development, the conceptual scheme presented in this study lends itself to the interpretation of labor market behavior in the office field which summarizes the interrelationships of these variables.

Recommendations

In the light of the data presented, the summary statements, conclusions, and additional impressions gained in personal interviews, the following recommendations were made:

1. High school counselors should be provided with information pertaining to the frustrations apparent in the beginning career patterns of high school females who enter the labor market in the office field after graduation without additional training. Those students who manifested interests and aptitudes commensurate with entry into the office field should be identified in their early high school years. In this way the counselors can help these youths to select the

right amount and type of vocational office training and activities that can be of real value to them in their beginning career patterns.

2. Beginning career pattern studies on this type of female population should be carried on with each successive class in an effort to determine the strengths and weaknesses of the graduates out on the job and to relate, insofar as possible, these strengths and weaknesses to the training being received. This is more apparent each year with rapid changes taking place in instructional methods, the duties required on-the-job, and the changing role of the female in the office field with a high school education in our society.

3. The type of specialization that is chosen by the high school student in preparing for office employment should be weighed against the time available to develop this specialty into job skills and attitudes which will be meaningful to the graduates in the labor market. For example, below six semester courses of training was found to be ineffective in allowing the graduates who specialized in secretarial course of study to attain stenographic jobs.

4. The large number of graduates who will probably enter the office field after graduation without additional training warrants the continuation of vocational office training at the high school level.

Suggested Further Study

The prediction of beginning career patterns in the office field, as well as other fields, is limited by incomplete knowledge of determinants. This need for identifying determinants can be met by using the career pattern model to investigate determinants other than the amount and type of vocational office training. For example, what beginning career patterns are discerned when all graduates have the same amount and type of vocational education, yet differ as to measured intelligence level?

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APPENDICES

APPENDIX A

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF EDUCATION

Michigan State University, in cooperation with the Lansing Public Schools, is conducting a work-history study. We are attempting to find out what you have been doing since leaving school. Your class was selected to participate in this study because we felt that you have been out of school long enough to accumulate work experience yet still be able to remember clearly what happened.

We are counting on you! Please take a few minutes to answer this questionnaire. Enclose it in the envelope provided and mail it now.

This study is confidential. Your name will not be used.

Sincerely yours,

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

Name _____ Phone _____

_____ Housewife (no outside job)
 _____ Housewife (also full-time paying job)
 _____ Housewife (also part-time job)

Briefly describe this job _____

Employed full-time _____ months
 Employed part-time _____ months
 Unemployed, seeking work _____ months
 Unemployed (ill, student, etc.) _____ months
 Housewife _____ months

How did you find it? Explain briefly. _____

Briefly describe what type of work you found. _____

If "yes," where did you work, at what kind of a job? _____

Why did you seek work there? _____

				(Check)	
(Check)	School	Year started	Number of months	Full-time	Part-time
<input type="checkbox"/>	Business college	19			
<input type="checkbox"/>	Technical school	19			
<input type="checkbox"/>	Company training program	19			
<input type="checkbox"/>	Adult education classes or night school	19			
<input type="checkbox"/>	College	19			

Briefly describe the courses or training. _____

List degrees, diplomas or certificates received if any. _____

If you have taken or are taking further education or training, check the main reason:

☐ To get ahead in my present job ☐ To prepare for a different kind of job
☐ For personal enjoyment and satisfaction ☐ To learn how to repair or do things around the house
☐ Other _____

Do you feel this training or schooling has helped you in your employment? Yes _____ No _____

How? _____

Name the kind of work you want to "settle down in." _____

When you "settle down," where do you expect to make your home? (Check one)

☐ Undecided ☐ In Michigan but not in Lansing
☐ In Lansing ☐ Outside Michigan; Where? _____

Why? _____

In looking back at your high school courses have any directly helped you in your employment? Yes _____ No _____

Which courses and in what way? _____

Are there any courses you would have liked to have had but either could not take or they were not offered? Yes _____

No _____ Which courses and why? _____

Marital status:

☐ Single ☐ Separated ☐ Number of children
☐ Married ☐ Divorced

Military service: Yes _____ No _____. If "yes," give dates of duty: from 19__ to 19__

Did you get any special training or schooling while in service? Yes _____ No _____

If "yes," briefly describe. _____

Do you feel this training has helped you in your civilian employment? Yes _____ No _____

Please use the space below for comments which may be of value to future students entering the labor market.

APPENDIX B

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF EDUCATION

Michigan State University, in cooperation with the Lansing Public Schools, is conducting a work-history study. We are attempting to find out what you have been doing since leaving school. Your class was selected to participate in this study because we felt that you have been out of school long enough to accumulate work experience yet still be able to remember clearly what happened.

We are counting on you! Your work experiences are important to us and to the community. Please take a few minutes to answer this questionnaire. Enclose it in the envelope provided and mail it now.

This study is confidential. Your name will not be used.

Sincerely yours,

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

If you have taken or are taking further education or training, check the main reason:

☐ To get ahead in my present job ☐ To prepare for a different kind of job
☐ For personal enjoyment and satisfaction ☐ To learn how to repair or do things around the house
☐ Other _____

Do you feel this training or schooling has helped you in your employment? Yes _____ No _____

How? _____

Name the kind of work you want to "settle down in." _____

When you "settle down," where do you expect to make your home? (Check one)

☐ Undecided ☐ In Michigan but not in Lansing
☐ In Lansing ☐ Outside Michigan; Where? _____

Why? _____

In looking back at your high school courses have any directly helped you in your employment? Yes _____ No _____

Which courses and in what way? _____

Are there any courses you would have liked to have had but either could not take or they were not offered? Yes _____

No _____ Which courses and why? _____

Marital status:

☐ Single ☐ Separated _____ Number of children
☐ Married ☐ Divorced

Military service: Yes _____ No _____.

Active Duty: from 19____ to 19____
 Reserve Duty: from 19____ to 19____
 National Guard: from 19____ to 19____

Did you get any special training or schooling while in service? Yes _____ No _____

If "yes," briefly describe. _____

Do you feel this training has helped you in your civilian employment? Yes _____ No _____

Please use the space below for comments which may be of value to future students entering the labor market.

APPENDIX C

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF EDUCATION

Michigan State University, in cooperation with the Lansing Public* Schools, is conducting a work-history study. We are attempting to find out what you have been doing since leaving school. Your class was selected to participate in this study because we felt that you have been out of school long enough to accumulate work experience yet still be able to remember clearly what happened.

We are counting on you! Your work experiences are important to us and to the community. Please take a few minutes to answer this questionnaire. Enclose it in the envelope provided and mail it now.

This study is confidential. Your name will not be used.

Sincerely yours,

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

*Questionnaire sent to parochial school graduates was changed to read "Lansing Public and Catholic High Schools."

If you have taken or are taking further education or training, check the main reason:

☐ To get ahead in my present job ☐ To prepare for a different kind of job
☐ For personal enjoyment and satisfaction ☐ To learn how to repair or do things around the house
☐ Other _____

Do you feel this training or schooling has helped you in your employment? Yes _____ No _____

How? _____

Name the kind of work you want to "settle down in." _____

When you "settle down," where do you expect to make your home? (Check one)

☐ Undecided ☐ In Michigan but not in Lansing
☐ In Lansing ☐ Outside Michigan; Where? _____

Why? _____

In looking back at your high school courses have any directly helped you in your employment? Yes _____ No _____

Which courses and in what way? _____

Are there any courses you would have liked to have had but either could not take or they were not offered? Yes _____

No _____ Which courses and why? _____

Marital status:

☐ Single ☐ Separated _____ Number of children
☐ Married ☐ Divorced

Military service: Yes _____ No _____.

Active Duty: from 19____ to 19____
 Reserve Duty: from 19____ to 19____
 National Guard: from 19____ to 19____

Did you get any special training or schooling while in service? Yes _____ No _____

If "yes," briefly describe. _____

Do you feel this training has helped you in your civilian employment? Yes _____ No _____

Please use the space below for comments which may be of value to future students entering the labor market.

APPENDIX D

FOLLOW-UP CARD

JUST A REMINDER!!!

A few days ago you received an important questionnaire entitled "Lansing High School Students' Work-History Study," which you were asked to fill out and return to us.

We need your help in this study. If you have already returned yours, please accept our thanks. If you have not, won't you take a few minutes to complete the questionnaire so that we may be sure of a 100 per cent return?

Thank you for your assistance.

/s/ LAWRENCE BOROSAGE

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

APPENDIX E

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF EDUCATION

May 15, 1962

WE NEED YOUR HELP!!

About a week ago you received a questionnaire entitled, "Lansing High School Students' Work History Study," which you were asked to fill out and return to us. You have probably also received a postal card reminding you to send in the questionnaire.

If you have already mailed the questionnaire, accept our "Thank You" for assisting in this worthy effort.

We want to know what REALLY happened to YOU after you left school. You are the only one who can give us the TRUE FACTS of the matter. We are interested in your comments whether you:

1. Graduated from school or never took a course.
2. Failed every course or got all A's.
3. Had a happy work experience after school or are "fighting angry" at everybody.

All we ask is that you complete the questions and send it back. Please do it RIGHT NOW! YOUR ANSWER IS IMPORTANT!

Sincerely yours,

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

LB:jj

APPENDIX F

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF EDUCATION

PLEASE - YOUR ANSWERS ARE IMPORTANT!!!

About three weeks ago I sent you a questionnaire about your work history since leaving high school.

Many of you have already answered. We have not heard from some of you. It is important that we hear from ALL of you.

REMEMBER:

1. This study is completely CONFIDENTIAL.
2. Your answer is important if the results are to show the TRUE facts.
3. This is a PRACTICAL STUDY being made in order to help the job situation.
4. We are asking for something more important than MONEY can buy. We need your EXPERIENCE AND OPINIONS.

PLEASE answer your questionnaire and mail it today. I shall personally appreciate your help in this worthy effort.

Thank you,

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

LB:jj

APPENDIX G

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF EDUCATION

August 13, 1962

A few weeks ago you were mailed a form which is very important to all vocational education in Michigan! The questionnaire and follow-up letters explained the fact that this is part of the state-wide Michigan Vocational Education Evaluation Project.

While the response has been quite gratifying, I would like to include your response together with the others in the final tabulation.

We must hear from as many of you as possible. We are asking you to do this, because YOU are the only one who can give the information we are asking for. This is your chance to speak your mind and also be of service as a responsible citizen.

Your answers are important whether you graduated in 1956 or quit before graduation, whether you went to a parochial or public school, whether you went to work immediately or took further schooling or went into the army, whether you became a housewife or a career girl.

If your return is already in the mail, accept our gratitude. Should the previous form have been lost or mislaid an additional copy has been enclosed.

PLEASE COMPLETE AND RETURN THIS FORM IN THE ENCLOSED STAMPED ENVELOPE TODAY! The Michigan Vocational Education Evaluation Project is depending upon you. A few minutes of your time now TO COMPLETE THIS FORM may be worth many dollars to future students, tax payers, industry, and the whole State of Michigan.

Don't be a slacker! DO YOUR BIT NOW! PLEASE HELP.

Sincerely yours,

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

LB:jj

APPENDIX H

YOUR ANSWERS ARE IMPORTANT

This is the FINAL attempt to get the information we need to make this job-study a success. Your cooperation is important. Complete the questionnaire TODAY and return it in the postage-free envelope provided.

APPENDIX I

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF EDUCATION

Thank you for your assistance and cooperation in completing the Lansing High School Students' Work-History Study Questionnaire.

It might interest you to know that we sent out about 1,200 questionnaires and have received over 800 from different states and even from some foreign countries. Some questionnaires are still coming in. We have assigned each questionnaire a number and have already coded them on IBM cards to insure that your answers are strictly confidential. This fall and winter we shall be processing and studying the material which you so thoughtfully provided.

If you happen to know any of your former classmates who have received a questionnaire and have not answered it, please urge them to complete and return it immediately. It is not too late.

We hope that your replies will provide us with some of the answers to the questions that have been plaguing us.

Thank you again. Your response has been gratifying and I personally appreciate your help.

Sincerely yours,

Lawrence Borosage, Director
Michigan Vocational Education Evaluation Project

LB:jj

NAME _____

CODE NUMBER _____

PART I WORK-HISTORY AFTER HIGH SCHOOL

1. Let's review your 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th job. (Circle)
 2. What was the job? _____
(Job Title)
 3. What did you do? (Job Description) _____

 4. Did you supervise any people? Yes _____ No _____ Number Supervised _____
-
- DO NOT USE QUESTIONS 5-8 FOR ADDITIONAL JOBS WITHIN SAME COMPANY**
-
5. For whom did you work? _____
(Name of Company)
 6. What does this company do? _____
(Product or Service)
 7. Where is this company located? _____
(City) (State)
 8. How long were you with this company? _____

-
9. How did you get this job? _____
 10. About how much was your starting pay? _____ per _____
(rate) (Hr., Wk., Mo., etc.)
 11. How many hours a week did you work on the average? _____
 12. How long were you on this job? _____
 13. About how much was your ending (or present) pay? _____ per _____
(rate) (Hr., Wk., Mo., etc.)
 14. Did you like this job? Yes _____ No _____
 - a. (If Yes) What did you particularly like about it? _____

 - (1) Was there anything you disliked about it? _____

 - b. (If No) What did you particularly dislike about it? _____

 - (1) Was there anything you liked about it? _____

 15. Was this the only job you held with this company?
 - a. Yes _____
 - (1) Why did you leave? _____
 - (2) How long were you unemployed between jobs? _____
 - b. No _____

NAME _____

CODE NUMBER _____

PART II RELATED INFORMATION

1. Did your husband (wife) also go to school in Lansing? Yes _____ No _____

a. (If No) Where? _____
(City) (State)

2. How far did your husband (wife) go in school? (Circle proper category)

- | | |
|-----------------------------|--|
| 1. Less than 8 years | 5. 1 or 2 years bus. school past high school |
| 2. 8 years - grammar school | 6. 13-15 years (some college) |
| 3. 9-11 years | 7. 16 years - college (B.S., or equivalent) |
| 4. 12 years - high school | 8. Over 16 years (M.S., Ph.D., etc.) |

3. Does your husband (wife) work? Yes _____ No _____

a. (If Yes) What does he (she) do? _____

b. How long has he (she) been working since you were married? _____

4. Do you belong to any community organizations such as clubs, lodges, church, or union? Yes _____ No _____

a. (If Yes) complete below

Name of Organization	How frequently do you go?	Have you been an officer?
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		
9. _____		
10. _____		
11. _____		
12. _____		

5. How many times have you moved since leaving high school? _____
6. Do you own _____ or rent _____ your home?
7. Number of legal dependents? _____
(As noted on income tax return)
8. What kind of work did your father do when you were in high school? _____

9. Did your mother work when you were in high school? Yes _____ No _____
10. Do you feel that high school prepared you for getting work? Yes _____ No _____
a. Why do you feel this way? _____

11. Did you feel after graduation that you had an understanding of how to meet
and work with people? Yes _____ No _____
a. Why do you feel this way? _____

12. Are there any other jobs you would rather have than the one you now have?
Yes _____ No _____
a. Why do you feel this way? _____

- b. Are there any possibilities of you getting this job? Yes _____ No _____
13. If you had an opportunity to go to high school again, and assuming that the
school taught all kinds of courses, what sort of courses would you take?

- a. Why would you take these courses? _____

14. You have probably read that the Government is considering offering retraining programs in which people would receive training for other types of work and a minimum allowance for living costs. If you had a chance to qualify for such a program, would you take the training? Yes _____ No _____

a. (If Yes) What kind of training would you like to take? _____

b. Why would you want this type of training? _____

15. Did you work when you went to school? Yes _____ No _____

a. (If Yes) What kind of work did you do?

Check if Co-op	Job Title	Name of Company	Approximate Length of Employment
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

APPENDIX K

REVISED SCALE FOR RATING OCCUPATION¹

Rating Assigned to Occupation	Proprietors & Managers	Business Men	Clerks & Kindred Workers, etc.	Manual Workers	Protective Service Workers	Farmers
1	Lawyers, doctors, dentist, engineers, judges, high-school superintendents, veterinarians, ministers (graduated from divinity school) chemists, etc. with post-graduate training, architects	Businesses valued at \$75,000 & over	Regional, divisional managers of large financial & industrial enterprises	Certified Public Accountants		Gentlemen farmers
2	High-school teachers, trained nurses, chiropodists, chiropractors, Undertakers, ministers (some training), newspaper editors, librarians (graduate)	Businesses valued at \$520,000 to \$750,000	Assistant managers & office & department managers of large businesses, assistants to executives, etc.	Accountants, Salesmen of real estate, of insurance, post-masters		Large farm owners, farm owners

¹W. Lloyd Warner, Marchia Meeker, and K. Eells, Social Class in America (Chicago: Science Research Associates, 1949), pp. 140-1.

Rating Assigned to Occupation	Professionals	Proprietors & Managers	Business Men	Clerks & Kindred Workers, etc.	Manual Workers	Protective Service Workers	Farmers
3	Social workers, grade-school teachers, optometrists, librarians (not graduate), undertaker's assistants, ministers (no training)	Business valued at \$5,000 to \$20,000	All minor officials of businesses	Auto salesmen bank clerks & cashiers, postal clerks, secretaries to executives, supervisors of railroad, telephone, etc., justices of the peace			
4		Businesses valued at \$2,000 to \$5,000		Stenographers, Factory bookkeepers, foremen, rural mail electricians, clerks, rail-plumbers, road ticket carpenters, agents, sales watch-people in dry makers goods store, etc.		Dry cleaners, butchers, sheriffs, rail road engineers & conductors	
5		Businesses valued at \$500 to \$2,000		Dime store clerks, hard-ware salesmen, beauty operators, telephone operators	Carpenters plumbers, electricians (apprentice) time-keepers linemen, telephone or telegraph, radio repairmen, medium-skilled workers	Barbers, firemen, butcher's apprentices, practical nurses, policemen, seamstresses, cooks in restaurant, bartenders	Tenant farmers

Rating Assigned to Oc- cupation	Professionals	Proprietors & Managers	Business men	Clerks & Kindred Workers, etc.	Manual Workers	Protective Service Workers	Farmers
6		Businesses Valued at less than \$500			Moulders, semi-skilled workers, assistants to carpenters, etc.	Baggage men, night police- men & watch- men, taxi & truck drivers, gas station attendants, waitresses in restaurant	Small tenant farmers
7					Heavy labor, migrant work, odd-job men, miners	Janitors, scrub-women, newsboys	Migrant farm laborer

APPENDIX L

College Preparatory and Academic Courses

10B Grade

ENGLISH 3	Cafeteria
HEALTH & PHYS. ED. 1	Clothing 1
Algebra 1 or 3	Foods 1
Geometry 1	Drafting 1
Industrial Mathematics 1	Printing 1
Latin 1 or 3	Woodworking 1
French 1	General Mechanics 1
Spanish 1	Driver Education
Biology 1	Music
World History 1	Business Mathematics
Art 1 (Drawing & Painting)	Business Organization
Personal & Social Problems 1	Merchandising

10A Grade

ENGLISH 4	Art 2 (Commercial)
HEALTH & PHYS. ED. 2	Personal & Social Problems 2
Algebra 2	Clothing 2
Geometry 2	Foods 2
Industrial Mathematics 2	Drafting 2
Latin 2 or 4	Printing 2
French 2	Woodworking 2
Spanish 2	General Mechanics 2
Biology 2	Music
World History 2	Commercial Geography
Speech	Typing 1
Debate	Salesmanship

11B Grade

ENGLISH 5 (Elect 1)	Art 3 (Handicraft)
College Prep.	Drafting 3
English Lit. 5	Printing 3
Academic	Woodworking 3
Gen. English 5	Architectural Drawing 1
HEALTH & PHYS. ED. 3	General Mechanics 3
U. S. HISTORY 1	Home Management
Latin 5	Music
French 3	Typing 2
Spanish 3	Bookkeeping 1
Chemistry 1	Shorthand 1
Physiology	

11A Grade

ENGLISH 6 (Elect one)

College Prep.

World Lit. 6

English 6

Journalism

Academic

Gen. English 6

Speech

Dramatics

HEALTH AND PHYS. ED. 4

U. S. HISTORY 2

Geometry 3

Latin 6

French 4

Spanish 4

Chemistry 2

Art 4 (Design)

Journalism

Drafting 4

Printing 4

Architectural Drawing 2

Woodworking 4

Music

Merchandising

Business Law

Advertising

Typing 5

Consumer Training

12B Grade

ENGLISH 7

College Prep.

English 7

Academic

Gen. English 7 or any
course not prev. elected

AMERICAN GOVERNMENT

Algebra 4

Latin 7

Physics 1

Music 5

Art 5 (General)

Spanish 5

Health & Phys. Ed.

12A Grade

ENGLISH 8

College Prep.

Adv. Comp. 8

Academic

Not required

Economics

Trigonometry

Latin 8

Physics 2

Music 6

Problems of Democracy

Spanish 6

Art 6 (Advanced)

Health and Phys. Ed.

Commercial Course

10B Grade

Gen. Clerical & Bookkeeping

ENGLISH 3
 HEALTH & PHYS. ED. 1
 COM'L ELECTIVE
 Elective
 Elective

Retailing

ENGLISH 3
 COM'L ELECTIVE
 HEALTH & PHYS. ED. 1
 Elective
 Elective

Secretarial

ENGLISH 3
 BOOKKEEPING 1
 COM'L ELECTIVE
 HEALTH & PHYS. ED. 1
 Elective

Commercial Electives

Business Organization
 Business Math.

10A Grade

Gen. Clerical & Bookkeeping

ENGLISH 4
 BUSINESS MATH.
 HEALTH & PHYS. ED. 2
 Elective
 Elective

Retailing

ENGLISH 4
 TYPING 1
 BUSINESS MATH.
 HEALTH & PHYS. ED. 2
 Elective

Secretarial

ENGLISH 4
 TYPING 1
 COM'L ELECTIVE
 HEALTH & PHYS. ED. 2
 Elective

Commercial Electives

Salesmanship
 Merchandising
 Commercial Geography
 Typing 1

11B Grade

Gen. Clerical & Bookkeeping

ENGLISH 5
 TYPING 1
 BOOKKEEPING 1
 U. S. HISTORY 1
 HEALTH & PHYS. ED. 3

Retailing

ENGLISH 5
 TYPING 2
 MERCHANDISING
 U. S. HISTORY 1
 HEALTH & PHYS. ED. 3

Secretarial

ENGLISH 5
 TYPING 2
 SHORTHAND 1
 U. S. HISTORY 1
 HEALTH & PHYS. ED. 3

Commercial Electives

Shorthand 1
 Bookkeeping 1

11A Grade

Gen. Clerical & Bookkeeping	Retailing
TYPING 2 or	COMMERCIAL LAW
BOOKKEEPING 2	BUSINESS LAW
COMMERCIAL ENGLISH	COMMERCIAL ART
U. S. HISTORY 2	U. S. HISTORY 2
HEALTH & PHYS. ED. 4	HEALTH & PHYSICAL ED. 4
Com'l Elective	
Secretarial	Commercial Electives
COMMERCIAL ENGLISH	Consumer Training
TYPING 3	Advertising
SHORTHAND 2	
U. S. HISTORY 2	
HEALTH & PHYS. ED. 4	

12B Grade

Gen. Clerical & Bookkeeping	Retailing
TYPING 3 or	SPEECH
BOOKKEEPING 3	RETAILING 1
AMERICAN GOVERNMENT	ADVERTISING
Com'l Elective	AMERICAN GOVERNMENT
Elective	Elective
Elective	
Secretarial	Commercial Electives
TRANSCRIPTION 1	Business Law
OFFICE MACHINES	Office Machines
SHORTHAND 3	Retailing 1
AMERICAN GOVERNMENT	
Elective	

12A Grade

Gen. Clerical & Bookkeeping	Retailing
OFFICE MACHINES or	ENGLISH 6 or
BOOKKEEPING 4	GEN. ENGLISH 6
SPEECH, ENGLISH 6, or	RETAILING 2
GEN. ENGLISH 6	Com'l Elective
OFFICE TECHNIQUES	Elective
Elective	Elective
Elective	
Secretarial	Commercial Electives
TRANSCRIPTION 2	Retailing 2
SHORTHAND 4	
SPEECH, ENGLISH 6, or	
GEN. ENGLISH 6	
OFFICE TECHNIQUES	
Elective	

APPENDIX M

SALARY SURVEY SUMMARY FOR LANSING, MICHIGAN
1956

	Average Starting Rate	Average Weekly Rate
Accounting Clerk A	68	82
Accounting Clerk B	55	69
Bookkeeping Machine Operator	51	59
Clerk, General A	52	64
Clerk, General B	43	54
Mail Clerk	45	52
Messenger	45	50
Payroll Clerk	55	71
Tabulating Machine Operator	59	73
Key Punch Operator	50	60
Addressing Machine Operator	52	57
Calculating Machine Operator	44	62
Duplicating Machine Operator	53	57
File Clerk	42	47
Cost Clerk	--	85
Secretary, Private	58	81
Secretary-Stenographer	56	73
Stenographer A	54	66
Stenographer B	48	56
Transcription Machine Operator	56	57
Typist A	47	64

	Average Starting Rate	Average Weekly Rate
Typist B	41	55
Telephone Operator	44	60
Sales Order Clerk	60	67

MICHIGAN BELL TELEPHONE COMPANY

April 30, 1963

Information concerning starting salaries: 1956

Telephone Operator \$49.50

Accepts and completes local and long distance calls from Lansing and area customers. Refers to route charts, quotes charges and rates, handles some complaints, provides special services such as mobile, sequence, conference calls.

Control Operator \$52.50

Assists instructor in training new operators. Operates training equipment at "dummy switchboard," acts as customer to stimulate real calls.

Senior Operator \$52.50

An understudy for the Service Assistant. Spends some time operating, and some time supervising other operators. Handles complains, service requests, does some training.

Service Assistant \$58.50

Instructs new operators, is responsible for their additional training, deals with customers and handles special problems, supervises groups of operators, does some personnel interviewing.

Dial Service Instructor \$57.50

Calls resident customers and discusses proper telephone usage and how to dial properly. When new services are introduced, such as All Number Calling, helps explain and educate the customers.

Service Representative \$60.00

Deals with customers concerning telephone bills and accounts, sells telephone equipment and services, arranges credit, deposits on residence service, answers questions concerning company, rate and charges.

Business Office Supervisor \$76.00

Supervises service representatives, hires, trains new employees, handles requests for special services requests from customers, handles personnel problems.

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