

A STUDY OF JACKSONVILLE, FLORIDA TO DETERMINE
WHETHER ITS PRESENT PROGRAM OF TRADE AND IN-
DUSTRIAL EDUCATION IS ADEQUATE. IF NOT
ADEQUATE, TO DETERMINE THE TYPE OF
PROGRAM WHICH WOULD MEET THE
INDUSTRIAL TRAINING NEEDS
OF ITS WORKERS

By Chester O. Holley

A Thesis Submitted to the Graduate Faculty
for the Degree of
MASTER OF SCIENCE

Major Subject Trade and Industrial Education

Approved:



.....
In charge of Major work

.....
Head of Major Department

.....
Graduate Dean

LIBRARY OF THE
STATE AGRICULT'L COLLEGE
FORT COLLINS, COLO.

COLORADO AGRICULTURAL COLLEGE, FORT COLLINS

1930

378.788
A.O.
1931
25

COLORADO AGRICULTURAL COLLEGE

GRADUATE WORK

1930

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER
MY SUPERVISION BY CHESTER O. HOLLEY

ENTITLED "A Study of Jacksonville, Florida to Determine
whether its present Program of Trade and In-
dustrial Education is adequate; if not adequate, to deter-
mine the type of Program which would meet the Industrial
Training Needs of its Workers"
BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF SCIENCE

[Redacted]
In Charge of Thesis

[Redacted]
Head of Department

Recommendation concurred in

[Redacted]
[Redacted]
[Redacted]
Committee on
Final Examination

Approved by

[Redacted]
[Redacted]
[Redacted]
Committee on
Advanced Degrees

ACKNOWLEDGMENTS

The author of this study wishes to express his appreciation to Dr. Chas. R. Allen for his helpful advice on the choice of the subject and its subsequent development.

To Mr. Harry A. Tiemann the author wishes also to express his appreciation for valuable counsel in the selection and preparation of the material.

Grateful acknowledgment is made to Dr. Chas. A. Prosser and associates of Dunwoody Institute for the use of material secured in Minneapolis, Minnesota, and for their special preparation of the same for the author's convenience in making the study.

Grateful acknowledgment is made also to Mr. E.B. Flaherty, Director of Vocational Education, and Mrs. B. Kenniston, Principal of the Part-time Continuation School in Jacksonville, Florida, for their assistance in the collection of evidence and in making surveys of the vocational program and industries of the city.

ABSTRACT OF THESIS

"A Study of Jacksonville, Florida to Determine
Whether its Present Program of Trade and In-
dustrial Education is Adequate. If not
Adequate, to Determine the Type of
Program which would meet the
Industrial Training Needs
of its Workers."

Colorado Agricultural College
Fort Collins, Colorado

Chester O. Holley
Tallahassee, Florida

The problem of this thesis originated in connection with a state-wide survey of the educational system of Florida, particularly that part dealing with vocational education. This survey revealed marked deficiencies in the Jacksonville program at the time it was made. These deficiencies have not been remedied and will not likely be until the way is pointed out.

This study has an immediate use in the improvement of the work in this city and in establishing procedures for use in studies of other cities in the State.

Four definite questions stated in the manuscript represent the angles from which the problem is viewed:

1. Does the present program meet the industrial training needs of its workers now served by the program?
2. Is the program adequate as to its scope? Does it reach all the industrial groups who can profit by organized training other than that which is now done in the respective fields?
3. Is the present administrative and supervisory organization adequate and efficient for the purpose of operating the program required to meet the needs of the industrial workers of the city?
4. What changes or modifications in the present program should be made to meet the needs of the workers of the city?

The study is of the survey type described in the book, "Efficiency in Vocational Education" by Wright and Allen.

Studies were made of the administrative and supervisory organizations, the part-time continuation school, and the evening school.

These studies present evidence, drawn from reliable but varying sources, from which conclusions are drawn in answer to the questions

stated regarding the major problems.

The results are recorded in the form of charts, graphs, and written statements and in the order of logical sequence.

The method of making the study of parts 1A, 1B, 3A and 3B included the use of stated factors similar to those used in other surveys of the "efficiency type." Evidence was secured and compared with what would be the most desirable conditions set up by the statement of the various factors.

In the second part of the study information was secured with reference to the present fields in which training is being given and compared with possibilities for the same, these possibilities having been determined by training successfully given in other parts of the United States.

The fourth part consists of suggested changes and modifications based upon deficiencies reported in the preceding parts of the study. The most outstanding of these deficiencies may be gathered from a brief outline of Part IV which presents recommendations regarding them. The outline follows:

Regarding the part-time school.

1. Broadening of objectives to where the opportunity type of school exists.
2. The organization of advisory committees.
3. Utilization of potential cooperative agencies.
4. Improvement of the coordinating personnel.

5. Improvement of facilities for professional improvement of operating personnel.
6. Adaptation of building and expansion of equipment.
7. A study and use of factors set up for the purpose of measuring the progress of the school.

Regarding the evening school.

1. A city-wide occupational study.
2. An equitable share of administrative attention from school officials to vocational education.
3. A content analysis of industrial jobs at which workers are employed. (Less analyses already made)
4. Organization of supporting committees.
5. Provision for improvement of operating personnel.
6. A more definite scheme for the selection of teachers.
7. Improvement of methods and devices of teaching.

Regarding administration and supervision.

1. A complete definition of responsibility and authority.
 2. A complete supervisory checking point system.
 3. An improvement in the use of supervisory devices and methods.
 4. Provision for improvement of personnel.
 5. A better utilization of available materials for instruction.
 6. A complete understanding of objectives and agreement as to their attainment.
-

TABLE OF CONTENTS

I. Introduction	
The purpose of the study	2
The problem	3
Methods of procedure and devices used	4
Methods of presentation	6
II. The Part-time Continuation School and Evening School	9
Description of the personnel involved	11
A. Evaluating factors and evidence obtained on the part-time continuation school	13
Summary and conclusions on the part-time continua- tion school	30
B. Evaluating factors and evidence obtained on the evening school	37
Summary and conclusions on the evening school	46
III. The Scope of Trade and Industrial Training in the City of Jacksonville, Florida	53
The present activities	53
A survey of the possible field wit	56
Conclusions	80
IV. The Administration of the Program of Vocational Education	82
Evaluating factors and evidence obtained on the administration	83
Summary and conclusions on the administration	88
V. The Supervision of the Program of Vocational Education	92
Evaluating factors and evidence obtained on the supervision	92
Summary and conclusions on the supervision	99
VI. Recommended Changes and Modifications	104
Recommendations as to the Part-time Continuation School	105

TABLE OF CONTENTS - Continued

Recommendations as to the Evening School	111
Recommendations as to Administration and Supervision	115
VII. General Conclusions	118
VIII. Bibliography	120
IX. Appendix	
Complete form of the questionnaire presented to the girls enrolled in the home making department of the part-time continuation school.	

INTRODUCTION

The years 1923-1926 developed in the State of Florida most unusual conditions, particularly as to growth, temporary prosperity, and state of mind. In no other period of the State's history had the population shown such a rate of increase.

With this rate of increase, naturally there came new and increasing demands upon the educational system. The State entered the period with a system of education already inadequate and during this time, the inadequacy became more marked on every hand. Relief was offered occasionally when a hasty survey of the needs for new buildings and equipment and other facilities in some particular locality resulted in bond issues for needed increases in this regard. The employment of new teachers by the score and other natural expenses added because of the growth of the demand for more adequate educational facilities made a noticeable increase in the tax burden. All these expenses had to come from sources of taxation already burdened to the limit when considered in the light of real values.

There arose a constant and expressed desire to know from some reliable authority to what extent the whole of the State's educational activities was meeting the need for the same. When this desire was presented to the State Legislature at the 1927 session, provision was made for a state-wide educational survey. Dr. George D. Strayer and associates of Columbia University were employed to do the work.

The part of the survey dealing with Vocational Education was

delegated to Dr. J.C. Wright and Dr. Charles R. Allen, Director and Educational Consultant, respectively, of the Federal Board for Vocational Education.

The survey of the program of Vocational Education was of the efficiency type and was made for the purpose of determining the efficiency of the program then in operation.*

The author of this study, through work and association with Dr. Wright and Dr. Allen in the study they made, was constantly confronted with the following problems, in addition to the one they were attempting to solve:

1. Do the programs of Vocational Trade and Industrial Education as now conducted in Florida cities meet the training needs of its industrial workers?
2. If not, why not?
3. In what direction and to what extent should development take place?

The Purpose of the Study

The results of the above survey, as shown by the official report, indicated the desirability of a study for the purpose of improvement of certain situations now existing in the State's program.

In order to reduce the proportions of the job which would be incurred if all Florida cities were studied in such detail as would be required to draw accurate conclusions in answer to the above questions,

*For full description and discussion of this type of survey, see Wright, J.C. and Allen, C.R. "Efficiency in Vocational Education," Century Company, New York City, 1929.

it was decided to select one city program for an intensive study. From this study, it is proposed to produce evidence upon which to base conclusions regarding the program selected and to establish procedures for extensions of the study to other Florida cities.

There are three cities in the State which would especially warrant a study of the type proposed. Jacksonville, a city of 129,682 population and the largest commercial center of the State, was chosen because the survey made by Wright and Allen disclosed some very grave deficiencies in the program which have not been remedied. This disclosure and the fact that there seems to be more opportunity in terms of potential needs to be met, are offered as justification of the choice.

The Problem

A study of Jacksonville, Florida, to determine whether its present program of Trade and Industrial Education is adequate; if not adequate, to determine the type of program which would meet the industrial training needs of its workers.

There are two distinct standards that may be used to determine whether it is meeting the needs of the industrial workers of this city. The first is whether the needs of workers are met when the opportunity is provided in the way of courses, classes, or schools for them to attend. The second is whether, in addition to the first, these classes or schools are operated for the greatest efficiency possible.

Engineers express the principles of efficiency by the formula $E = \frac{r}{t \cdot e \cdot m}$.* In this formula, E - efficiency, r - results,

*Prosser, C. A. and Bass, M. R., Adult Education: The evening Industrial School. Century Company, New York City, 1930.

t = time, e = effort and m = money. In the application of the formula to an educational service, the conclusion is drawn that in order to have a fully efficient program, we must obtain the greatest possible results from the least expenditure of time, effort and money.

The study has been made with four different questions in view:

- A. Does the present program meet the industrial training needs of its workers now served by the program?
- B. Is the program adequate as to its scope? Does it reach all the industrial groups who can profit by organized training in their respective fields of work?
- C. Is the present administrative and supervisory organization adequate and efficient for the purpose of operating the program required to meet the needs of the industrial workers of the city?
- D. What changes or modifications in the present program should be made to meet the needs of the workers in this city?

Methods of Procedure and Devices Used

Varying conditions are present in any attempt to secure the desired information for this type of study. The sources available, in the main, were not of the kind that would make practical the use of the questionnaire, written statements, and such other common forms of securing evidence. Such conditions as suspicion, direct opposition to giving out facts, lack of information, lack of time, optimism and pessimism, have required that ingenuity and judgment be employed

in the collection and evaluation of the evidence secured.

The sources have been carefully selected with due regard to the character and reliability of the information desired and the extent to which efficiency could be maintained in their use.

Whatever the sources are and the conditions which warrant their use or rejection, they are uncontrollable factors from the standpoint of change and are subject to favorable manipulation only by careful selection and intelligent use of methods and devices. The real character of the evidence and its reliability depend upon the choice the person conducting the study makes of them.

The sources and methods used throughout the study are summed up as follows:

- A. Conferences with individuals and groups within the industry.
- B. Conferences with individuals and groups within the schools.
- C. Professional evaluation of groups at work in the class rooms.
- D. Professional evaluation of individual teachers in the class room.
- E. Professional evaluation of supervision and administration of the vocational program.
- F. School records.
- G. Professional evaluation of materials and methods and the use of other studies and their applications to this study.
- H. Professional evaluation of subject matter used in the courses of instruction.

- I. Tabulations from directories and other sources.
- J. Tabulation of information from organizations within the city.

Methods of Presentation

The study is presented in four parts, each dealing with one of the specific questions listed on page 4. The parts are arranged in the same consecutive order as the questions.

The materials are presented in the form of tables, charts, graphs and written statement of evidence, and in the order which gives logical sequence to their presentation.

PART I

For the purpose of determining whether the present program meets the needs of the workers now served by it, it is proposed to use evaluating factors bearing upon the checking points set up in the Massachusetts State Law by which the programs of vocational training in that State are evaluated for the purpose of State aid. These points are as follows:

- A. Plant
- B. Equipment
- C. Qualifications of teachers
- D. Courses of study
- E. Methods of instruction
- F. Employment of students.*

PART II

In regard to the adequacy of the present program, it is proposed to show:

- A. The present fields in which training is taking place.
- B. The industrial occupations at which people work.
- C. The levels of employment in these occupations.
- D. The occupations in which training has been successfully given in other states.
- E. The probable field of trade and commercial recruits.

*Prosser, C.A. and Allen, C.A. Quoted in Personal Conference.

PART III

It is proposed to present evidence bearing upon the administration and supervision of the program by the use of certain efficiency factors set up by Wright and Allen for measuring these parts of a program.

PART IV

It is proposed to set up such changes and modifications as should be made and justify them by information on what has been successfully done in other parts of the United States.

II. THE PART-TIME CONTINUATION SCHOOL AND EVENING SCHOOL

The present program of vocational education consists in a part-time continuation school, operating nine months each year, and an evening school, running from October 1 until May 1.*

The program of the continuation school is composed of two general divisions of work: General education, and commercial education. In the general education division the courses are arithmetic, English, spelling, citizenship training, history, science, reading, writing, and oral and written composition. These are classified as containing fundamental subject matter. In addition, there are courses such as algebra, Latin, history and others which classify as high school subjects. Home making and shop courses are also offered to strengthen the general education part of the program.

In the evening school, such trade courses as drafting, shop mathematics, theory and practice of electricity, American Railway Association rules and regulations, air brake mechanics, car lighting, automobile mechanics, problems of refrigeration, blue print reading and shop sketching, plumbing and carpentry are given. The actual objectives as officially stated are given in the following table and statements:

*Approximate

TABLE I

STATED OBJECTIVES IN THE CONTINUATION SCHOOL
OF JACKSONVILLE, FLORIDA*

1. To prepare juvenile workers to re-enter high school.
 2. To meet the desire of juvenile workers to qualify for and pass grade school examinations.
 3. To meet the need for social adjustment.
 4. To give knowledge of certain of the home making arts.
 5. To motivate the study of the fundamental subjects by offering shop activities.
 6. To prepare a person to become a typist.
 7. To prepare a person to become a stenographer.
 8. To prepare a person to become a filing clerk.
 9. To prepare a person to become a bookkeeper.
 10. To prepare a person to use the dictaphone.
 11. To prepare a person to use fundamental subject matter.
-

The objective of the evening school as conducted in Jacksonville is the same as that generally accepted by those conducting federally aided evening classes in Trade and Industrial Education and stated in the Federal Board Bulletin, No. 17, page 34, Federal Board for Vocational Education, Revised Edition.** To provide instruction supplementing the daily employment of industrial arts workers.

*Statement of Objectives secured in oral conferences with Principal and Instructors in the Jacksonville Part-time School.

**Oral Statement of Director of Vocational Education.

Description of the Personnel Enrolled

The group of students in the part-time continuation and evening schools is composed of juvenile and adult workers from the many commercial and industrial occupations in the city. There is a wide difference in the educational attainment if judged on the basis of their mastery of common school subject matter; their general social bearing and finesse and ability to make such social adjustments as their status in society demands; their chronological and mental ages and their mastery of skills and knowledge necessary to get and hold a job, or to remain in the line of job promotion.

Paralleling this difference in the general educational, social and work attainments is also a wide variance in interest, aptitude, learning ability, and life purpose.

Unlike the study groups of the public day school, the age range is much greater. In the continuation and evening schools only the minimum age is established. Otherwise, the work of the school is controlled by the objectives and the nature of the subject matter. As quoted from the State Plan for Operation of Schools and Classes, under the Smith-Hughes Act in the State of Florida, "the controlling purpose of the continuation school shall be to increase the civic or vocational intelligence of the individual.----The controlling purpose of trade extension classes shall be to extend the skill and knowledge of the individual in the trade or occupation at which he works.----The subject matter shall be of secondary school grade."

The part-time continuation school students have, for some reason or other, gone out of the regular day school and into employ-

ment. The validity of their reason for this is taken for granted. They are where they are, and that fact makes them eligible and admits them to the opportunities of the school.

The evening school student is working in an all-day job. He has missed the opportunity of securing certain of the necessary knowledges and skills pertinent to the successful practice of his trade. It is very noticeable during the present industrial slump which has swept the nation, that many workers are faced with the question of survival on the job during the continued process of reducing forces. It is a commonly accepted fact that during times of industrial depression, the uninformed and unskilled mechanic has less opportunity of remaining on the job than those who are fully qualified. If the worker, with little chance of retaining a job, does not classify or fall into the type group just mentioned, he may be one of those who have been following a trade which has gradually become obsolete, or one in which a man of his particular ability has been replaced by improved machinery and production practices. He may fall into a third group which is confronted by the necessity of new knowledge of trade practices recently developed in this period of invention and mechanical improvement. The man on the job is faced with a variety of reasons for grave consideration of his employment status. His economic condition depends upon his decision and his decision depends upon the opportunity the community offers for him to break the shackles of inability to do efficient work.

Determining the Needs of Those Enrolled

From the description of the student personnel, it is evident

that educational service which functions in terms of the controlling purposes and needs stated will provide for the individual needs of the workers so far as those needs can be determined and training provided to meet them more efficiently than they would otherwise be met.

A Evaluating Factors and Evidence Obtained on the Part-time Continuation School

In order to fulfill the purpose as stated under the methods of presentation, Part I, page 7, adaptations of factors bearing upon the part-time continuation and evening schools, outlined by Wright and Allen in their book Efficiency in Vocational Education, have been used to secure evidence bearing upon these points.

Factor A

A part-time continuation school will meet the major needs of those enrolled in proportion as it sets up its objectives in terms of maximum social service to different groups.

Evidence Obtained

A number of pupils state their desires for certain study upon their entrance to the school, others come under compulsion and have no request; therefore, they are assigned.*

With the former the tendency is to permit them to pursue the subject of their choice; with the latter they are assigned, after an interview with the principal, who in her judgment decides upon the teacher or department to which the pupil shall go.*

Typing, shorthand, hand bookkeeping, use of the dictaphone and office practice and filing compose the courses given in the commercial department.

There is a special class for department store girls. A

*Principal of the School

general shop is conducted for the boys who desire some shop training. The part of the program dealing with the general education matter draws a large part of the enrollment.*

A canvas of sales agencies distributing commercial equipment shows that there are now in use in the city, the following numbers and types of machines requiring training for those who are to operate them:

Bookkeeping machines	448
Adding machines	2000
Calculating machines	250
Billing machines	250
Addressographs	12

Other machines, such as comptometers, calculators, etc. which require practically no training are not listed.**

Doing ability is a recognized objective in several courses. The shop courses carry many of the objectives of manual training, such as motivated study, general and semi-technical knowledge and hand skills. The home making department, according to the content of the courses, has little of the social objectives applicable to the younger working girls. Cooking, table service, meal planning and dressmaking are stressed.***

The general educational department is apparently seeking to bring about a doing ability in the fundamental subjects. With some students

*School Records.

**Author's Canvas.

***Professional Evaluation of Courses.

the ability to pass a regular grade school subject examination is the objective for which they strive.*

Social adjustment as an objective is revealed by numerous reports on teacher visitations. The purpose stated is that of the teacher's desire for a clue to what individual needs are most important.*

The State Plan for Vocational Education sets up the objectives in the very general terms: "The controlling purpose shall be to increase the civic or vocational intelligence of the individual."**

Factor B.

A part-time continuation school will meet the needs of those enrolled in proportion as all of its teachers are particularly qualified for this special type of a teaching job.

Evidence Obtained

A statement of the qualifications of the instructors employed is shown in the following table:

TABLE II****
QUALIFICATIONS OF TEACHERS EMPLOYED IN THE
JACKSONVILLE PART-TIME SCHOOL

Name	Department	Occupational Experience	Vocational Teacher-Training
G	Commercial	2 years	100 hours
K	Principal	4 years	418 hours
B	General Education	3 months	100 hours
M.S.	Commercial	6 years	100 hours
R	Commercial	2 years	10 hours
Gay	Commercial	2 years	10 hours
H	Shop	16 years	190 hours
S	General Education		
P	General Education	3 months	100 hours
O.S.	Home Making	11 years	130 hours

*School Records and Statement of the Principal.

**Florida State Plan for Vocational Education, Page 20.

***Records of the State Department for Vocational Education.

The selection of a teacher is made on the recommendation of the principal. Interest in part-time education, working experience and a fair try-out to determine teaching ability are the chief factors considered in selecting the teacher.*

Factor C.

A part-time continuation school will meet the needs of those enrolled in proportion as the improvement of the teacher is provided and takes place on the teaching job.

Evidence Obtained

A teacher-training course consisting of more than thirty hours was conducted by the director of vocational education during the current year. This study was based upon Prosser and Allen's book Have We Kept the Faith.

Teacher helps are given each individual teacher through classroom supervision by the principal. Group and individual conferences are held if the need and the opportunities arise.**

Four teachers spent last summer in a working job upon the recommendation of the state supervisor. Others attended school. One teacher was automatically dropped from the staff because she failed to secure additional working experience during the summer months.***

(The working experience referred to is considered as necessary training and that which cannot be secured in any closer relation to the teaching job than through summer work).

*Principal of the Part-time School.

**Statement of the Principal.

***State Supervisor, Trade and Industrial Education.

Factor D.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as the total personnel is adequate for getting the job done in terms of objectives and the number of pupils.

Evidence Obtained

The co-ordination is done by individual teachers. Outside of co-ordination work the teaching load does not exceed twenty-five hours per week per teacher.

The classes vary according to student demand and the type of subject matter used. A typewriting class may number thirty-five, while a class in shorthand may contain groups of five or six.*

In shop or home making the classes are small averaging about eight in shop and three in home making.*

Personal conferences are frequently arranged between teacher and pupil and between principal and pupil. These conferences are usually the basis for follow-up in the home or on the job.**

The principal has supervision of nine teachers in service.***

The system provides a director of vocational education who is directly responsible to the Superintendent of Schools and the County Board of Education.***

An attendance officer is employed by the county. All attendance problems are handled by him except the issuing of work permits, which

*School Records.

**Statement of the Principal.

***School Records.

are required under the compulsory education law. These permits are written by the principal of the part-time school.

Factor E.

A part-time continuation school will meet the needs of those enrolled in proportion as the personnel is efficiently distributed with regard to necessary functions, characteristics, special abilities and training.

Evidence Obtained

The teaching jobs are distributed on the basis of special abilities of the teacher.*

Co-ordination is likewise distributed on the basis of teacher ability. Regular reports on co-ordinating activities are kept and serve as a basis for teacher-principal conferences.*

Students desiring to be transferred from one department or class to another, may do so on recommendation of the teacher and the consent of the principal.*

Special teaching ability is a prime consideration in the assignment of the pupil to the teacher.*

Teachers are occupationally trained with two exceptions.** These two teachers, by virtue of experience and co-ordination work, have some of the equivalents of occupational training.***

The principal who has supervision of the instruction in the school has seven years experience as continuation school teacher and

*Statement of the Principal.

**Table I, Page 15 this Study.

***Professional Evaluation of the Teacher's Work.

principal. She has had training under the Federal Board for Vocational Education; the State Board for Vocational Education; has attended the Oswego State Normal School one summer and the Colorado Agricultural College one summer. Her work in these summer schools was along the line of vocational education.*

There is an average attendance of about 250. The teaching staff numbers 10; the pupil hour per week attendance ranges from 4 to 20 hours.**

Factor F.

A part-time continuation school will meet the needs of those enrolled in proportion as adequate and suitable housing, equipment and supplies are provided.

Evidence Obtained

The part-time school is located within six blocks of the main business district of the city. The area from which pupils come approaches a radius of two miles.***

The street car and bus service is well established in the city; also the streets are paved permitting rapid transit on bicycles and in automobiles.****

The building was constructed to accommodate a high school. During the building activities of 1924-1926 new high school buildings were constructed and the present structure given over to the county school administration offices and to the part-time school.****

*State Teacher - Training Records.

**School Records.

***Map of the City.

****Observation of the Author of this Study.

There are seven class-rooms 30 by 40 feet. The shop room is 40 feet by 80 feet. The enrollment of some of the classes is as low as three pupils.*

The shops are located in the basement with inadequate natural lighting and outside entrances.*

The lighting is poor on account of the depth of the rooms, the light being admitted at the end of the room in most cases.*

The class-room equipment consists of ordinary grade or high school seats. In the commercial rooms, typewriting tables are provided with ordinary straight chairs. Tables and chairs are provided for bookkeeping.*

In the shops the equipment is not particularly adapted to the use being made of it. In the case of machines, it is noted that they are old, almost to the point of being obsolete. The hand tools are fair.*

The home making department is equipped with two sewing machines, kitchen equipment, such as a stove, silverware etc. There is a completely equipped bedroom and dining room.**

There is a noticeable shortage of suitable materials for student use. Supplies in limited quantity can be secured upon recommendation of the director and principal and agreement of the Board of Education.**

Factor G.

A part-time continuation school will meet the needs of pupils enrolled in proportion as it establishes and maintains good co-operative

*Observation of the Author of this Study.

**Statement of the Principal.

relations with the community.

Evidence Obtained

The part-time school survived in face of a strong policy of retrenchment following the land boom.*

The commercial and industrial concerns employing juvenile workers are co-operative to the extent of excusing persons of compulsory school age from work to attend the part-time school. A number of these concerns check up on the school attendance of the workers.**

Messenger boys lose the time they are in part-time school; however, they are required to attend by the companies employing them.***

There is a passive willingness on the part of some of the employers to have the school set up the objectives and prescribe the courses.****

In the case of two department stores, there is an interest in seeing that certain work is given which will assist the student on his working job.***

There are no advisory committees.***

The elementary evening school, supported entirely by public funds, is gradually losing ground. The increasing enrollment of the part-time school is some evidence of public sentiment in its favor.***

*School Records.

**Attendance office Records.

***Statement of the Principal.

****Observation of the author of this study.

The Jacksonville newspapers are pleased to receive and use news items pertaining to the school. A voluntary editorial appeared during the year in the leading daily paper. The statements were quite favorable to the purpose and work of the part-time school.*

Factor H.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as its progress is flexible in terms of individual and group needs.

Evidence Obtained

All courses are semi-elective, that is, they are elective unless there is a very apparent handicap on the part of the pupil. Included in these handicaps are such as hearing, knowledge of fundamental subject matter in the case of a person desiring a course in stenography, and physical handicaps that would not probably be overcome in preparation for a chosen work.**

A pupil can change classes when and where there is a just reason.**

General education and commercial courses are the common types of training. The commercial courses are shorthand, book-keeping, office practice, filing, business English, typing and practice in the use of the dictaphone. Shop courses are general in nature and include sheet metal, electrical, woodwork, machine shop, automobile mechanics, drafting, and ornamental iron work.

*Florida Times Union, published at Jacksonville, Florida.

**Statement of the Principal.

Special courses are available for sales people.*

Time of attendance is arranged to meet the demands of the pupil's job. The school is open from 8 o'clock A.M. until 5 o'clock P.M.**

Requests have come to the school for work that could not be given.**

Special interviews and try-outs are provided for undecided and skeptical ones so that they may add their judgment to that of the principal regarding which part of the school will serve their needs best.**

Factor I.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as the life activities and interests of the pupils are utilized in the educational procedures.

Evidence Obtained

Each teacher is responsible for co-ordination with a certain group of pupils. Home, personal and job interests are studied for the purpose of guiding the instruction given.**

The author, on an observation trip to ascertain the type of educational procedures in use, found one teacher using the straight conference method on a social problem, another using, as far as possible, terminology of the worker's job in the formation of mathematical problems. In office practice cases were used around which

*Office Records.

**Statement of the Principal.

discussion took place and from which conclusions as to the best practice were drawn.

The shop courses are of the motivated type, appealing to younger boys' interests. Instruction is grouped about the projects by close correlation of subject matter with the hand activities.*

In commercial courses, such as typing and shorthand, vocational interest is expressed by election of the training.*

A survey of 15 pupils in the home making department shows that the content of the course does not include instruction in the home and social activities in which the girls are most frequently engaged.**

Disciplinary problems of a minor nature were observed in a class on general education. Lack of interest in the subject matter being taught was quite evident.*

Factor J.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as its objectives are clearly defined and understood by the entire faculty.

Evidence Obtained

The character of the work in the commercial courses indicates a clear understanding of the vocational objectives upon which these courses are based.

The home making teacher stated that her objective in cooking courses was to have the girls know how to plan, cook and serve a meal.

*Observation of the Author of the Study.

**Page 71, this Study.

The principal sought the services of an academic teacher who was qualified under State regulations to teach the upper grades and high school work.* In this case the instruction given at the part-time school could be recognized for regular public school credit.*

The principal stated that in her estimation the shop teacher was "hazy" on the objectives of the shop courses.*

Four of the teachers and the principal participated in a conference on the part-time school in which the major objective was stated as "adjustment from the full-time school to a full-time working job."**

A teacher in the academic department stated that her objective was a continuation of the regular elementary school subject matter.

Factor K.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as the operating personnel have been functionally trained for the particular work.

Evidence Obtained

Most of the teachers have engaged in teacher-training which dealt with such problems of the part-time school as co-ordination, selection of course content and educational procedures, and the philosophy of vocational education.***

The principal has spent a summer session at the Colorado Agricultural College, one at the Oswego State Normal School and has

*Statement of the Principal.

**Teacher-Training Records of the Florida State Board for Vocational Education.

***School Records.

attended a summer conference of approximately 70 clock hours called and conducted at Blue Ridge, North Carolina, by the staff of the Federal Board for Vocational Education. At this special conference she received training in the administration and supervision of continuation schools.*

Factor L.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as the entire personnel believe in their job.

Evidence Obtained

The observation of the one making this study has been that the teachers are "completely sold" on the work of the school.

The teachers have longer working hours than the regular school teachers and the salary schedule is slightly lower than that of the others.**

All teachers are re-appointed for another year and are planning on continuing their work.*

One teacher asked that the future of her work be outlined, stating that she was interested in making the greatest possible contribution in this field of service.***

As stated in the evidence under Factor B, interest in this type of work is a big consideration in the selection of teachers.***

Factor M.

A part-time continuation school will meet the needs of the pupils

*Statement of the Principal.

**School Records.

***Statement of the Author of this Study.

enrolled in proportion as it secures cooperation of all parties having direct interest.

Evidence Obtained

A department store manager requires his employees of part-time school age, 14 to 16, to attend school and assists the teacher of his group in the selection of subject matter.*

Western Union sent a special representative to the State Department for Vocational Education for the purpose of outlining material for messenger boys.**

Few cases are on record where parents have taken advantage of exemptions under the part-time law.***

Less than 50 per cent of the pupils are compulsory students.****

Several employers sending one or two pupils are passive as to the interest, attendance, or progress of the pupil.*****

Factor N.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as the curriculum has been worked out with regard to specific needs of the groups served as expressed in objectives.

Evidence Obtained

Evidence secured on the questionnaire presented to the home making girls shows that no organized analysis of the pupils' needs

*Statement of the Principal.

**Statement of the Author of this Study.

***Attendance Office Records.

****School Records.

*****Conference with individual Employers.

in home making has been made. The jobs taught rank low in frequency as compared with many not given any attention.*

In the academic department, type instruction sheets on spelling, mathematics, and writing indicate organization on the basis of probable needs of the pupils.**

The commercial courses are based upon standard procedures with levels of achievements established and tests available by which to determine the levels reached.**

In shop subjects there has been no plan worked out by which specific needs in terms of objectives are expressed.**

Thruout the continuation school there is no standard or fixed course which must be completed, except by those who wish to complete certain subjects or grades.*** The training given is along the line of general education, social adjustment or commercial training. The pupils come from practically every line of employment in the city.****

Factor O.

A part-time continuation school will meet the needs of the pupils enrolled in proportion as the pupil groups are made on a basis of recognized individual needs; that is, instructional groups or classes are homogeneous in terms of needs.

Evidence Obtained

Shorthand classes numbering 15 or more drill in groups of from 3 to 5, depending upon the level of achievement. New groups are

*Table IX, Part II, Page 71-72, this Study.

**Observation by the Author of this Study.

***Statement of the Principal.

****School Records.

readily formed when needed.*

Groups are frequently formed on the basis of common working interests, such as groups of golf caddies, Western Union messengers, sales girls, etc.**

With those desiring commercial training and those desiring general educational subject matter, there is no question as to objective. The general groups are arranged with regard to homogeneity of employment experience. Within the class there is further grouping as to need, characteristics and educational attainment.*

As previously stated the courses are elective.*

*Observation by the Author of this Study
**Statement of the Principal.

SUMMARY AND CONCLUSIONS ON THE PART-TIME CONTINUATION SCHOOL

Factor A.

From the description of the personnel on page 15 and the statement of the wide range of jobs at which the pupils of the part-time school work, it is evident that the opportunities of the school are not broad enough in scope.

The fact that so few opportunities are offered in the school as compared with working opportunities of the pupils, indicates that the objectives are set up primarily on tradition with much consideration being given for the ease of handling the pupil, rather than for the maximum social service that might be offered.

It is interesting to note the conflict in the stated objectives of the school and the objectives set up in the state plan. The latter does not call for any effort to produce doing ability but deals with training which would increase the civic or vocational intelligence.

A rating of five was given on the basis of the evidence secured.

Factor B.

The teachers' qualifications in so far as occupational training for the vocational part, and the mastery of subject matter for the general educational part, of the program go, seem reasonably adequate. However, the value of the professional training is questioned on the basis of the way and the conditions under which it was secured. The teacher in the case occupies the position of the person learning to do a mechanical job. Wright and Allen, in a statement of their efficiency factors for rating specific courses, say "training can

best be given on a real job." In the case of the teacher-training, the job has been talked about only and the carry-over will depend on the ability of the individual to make application upon his or her return to the job. The laws of habit governing the learning process developed by Dr. Charles A. Prosser on the campus of the Colorado Agricultural College are violated by such training as would be given under the methods cited.

On the basis of the evidence secured and for the reasons given in the discussion above, a rating of seven was given.

Factor C.

From the evidence obtained, it is granted that professional improvement of the teacher is provided on the job. A rating of eight was given.

Factor D.

The evidence presented indicates that the teachers in the school carry too great a teaching load. Since individual instruction and individual progress characterize the work in the school, more time is required for preparation, instruction and the complete function of co-ordination. On the basis of evidence and discussion, a rating of seven was given.

Factor E.

The evidence presented under this factor shows that existing conditions approximate the best that could be expected. The question of a definite assignment to the teacher for one whole hour would seem

to discount somewhat the ability of the school to make continuous and prompt assignment of the personnel to the teaching and other jobs arising within the school. On the evidence obtained a rating of eight and a half was given.

Factor F.

The evidence shows that the building is well located with reference to the distance the majority of the workers who attend must travel.

There is no indication that the building is particularly suitable as considered from the viewpoint of arrangement of space. However adequate the space may be, unless it is properly arranged as to size and nature of the classes, or subject to such changes, it cannot be considered adequate or suitable. The fact that equipment obtained in the shops approaches being obsolete renders it inadequate and unsuitable for the purposes of instruction of boys who may wish to gain skills for use in industrial jobs. As to suitability for the purposes of general education, it is adequate for the use of the instructor in roughing out jobs in view of the relatively few instances where a student would be called upon to use the skills.

The evidence shows an inadequacy of materials and supplies necessary to give certain types of instruction with facility. On the evidence obtained a rating of three and a half was given.

Factor G.

Many potentially strong cooperative agencies existing in the city have not had their interest solicited. These agencies have

taken no occasion to bother themselves with the school's problems.

In summary, on the basis of evidence obtained, there is no indication of active community interest for or against the school. A rating of two was given on the evidence secured.

Factor H.

The evidence presents the fact that the school is handicapped because of its inability to meet any and all training needs within the range of its opportunity. On the other hand, it appears to be so organized that within the range of its offerings, maximum expectations are reached in its flexibility. A rating of three was given on the basis of the evidence secured.

Factor I.

The indication is that through co-ordination, life interests and activities are sought out in so far as teacher-training in the co-ordinating function permits.

The difficulty, according to the observations made, seems to be that of articulating the instruction given with the interests and activities discovered through the various processes. Lack of facilities and lack of knowledge of the use of educational procedures are probably the main factors underlying a failure in this regard. A rating of four and a half was given on the basis of the evidence obtained.

Factor J

With the objectives stated on page 10 of this study as a basis, the information secured, with the exception of the shop teacher, shows

there is a general agreement on the objectives and an understanding of them.

The above statement does not validate the objectives but deals with definition and understanding of stated objectives. On the basis of the evidence a rating of eight was given.

Factor K.

The evidence regarding training would tend to show that teachers are functionally trained for the particular work of the school. Discounting factors regarding their training, such as conditions under which it was secured - a pseudo job, and lack of definite application to each teacher's job - too much generalization is present. This reduces the degree to which the personnel could be considered functionally trained. On the basis of evidence obtained a rating of seven was given.

Factor L.

Statements were made to the effect that pupils enrolled are interested in and believe in their jobs, therefore a rating of nine was given.

Factor M.

The evidence indicates about an even break as to the cooperation established with those having direct interest in the part-time school. The cooperation of some have been received, with others it is the reverse. There is no evidence to show that an organized effort has been made to secure interest on a large scale. The evidence does show, however, that an approach has been made to secure this interest on an individual basis. This is done principally through co-ordination.

On the basis of the evidence a rating of four was given.

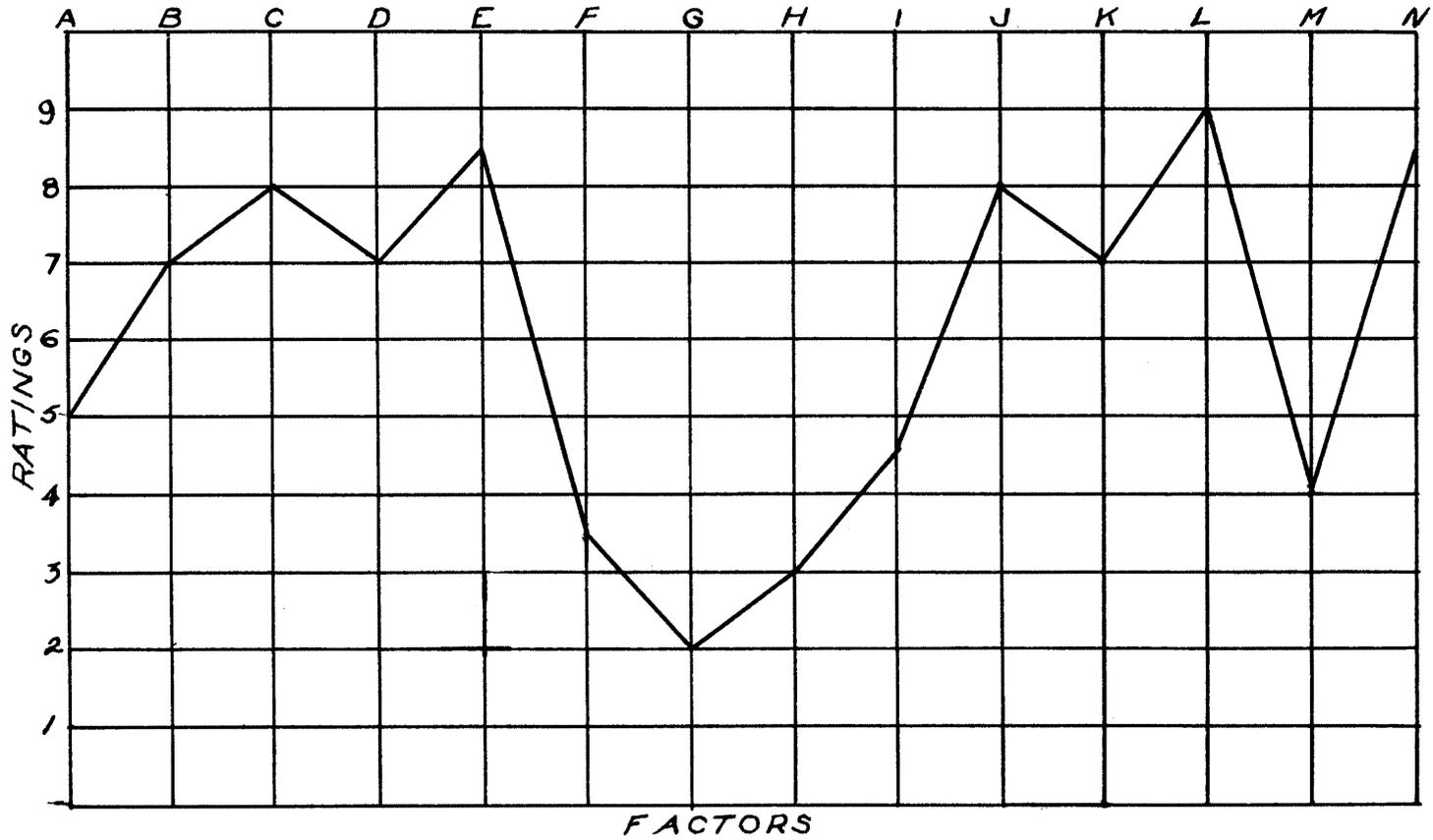
Factor N.

The evidence shows that the curriculum has been set up with the intention of reaching the objectives stated. Groups are formed on the basis of common interest. There is complete flexibility as to the formation of needed groups. The objectives seem to be reasonably well understood by the teaching personnel. Many courses have the vocational objective and all courses are elective, therefore, on the basis of this evidence a rating of eight and a half was given.

As a complete summary picture of the degree to which the part-time general continuation school meets the needs of those enrolled as concluded from the evidence gathered on the factors used, the following graph is presented.

GRAPH I

SHOWING SUMMARY RATING ON FACTORS PERTAINING TO THE PART-TIME CONTINUATION SCHOOL, A PART OF THE TRADE AND INDUSTRIAL EDUCATION PROGRAM, JACKSONVILLE, FLORIDA, 1930.



B. Evaluating Factors and Evidence Obtained on the Evening School.

The study of the evening school involves a similar procedure to that used in the study of the continuation school.

The evidence gathered from which to draw conclusions as to whether this part of the vocational program meets the needs of those enrolled is handled in much the same way as with the continuation school, viz., by the use of an adaptation of certain evaluating factors used in measuring the efficiency of specific courses in vocational education, as stated on page 13.*

These factors agree with the checking points set up in the Massachusetts state law as stated on page 7.

Summarizing the description of the personnel of the student body given in the introduction, the following specific facts are recorded:

1. They are adult workers engaged in industrial pursuits.
2. It is an uncontrolled group from the standpoint of attendance.
3. The hours spent attending evening school are in addition to the day's work.
4. The range of experience is from apprentice to master.
5. Attendance is prompted by desire to improve on the present job or to prepare for a better one.

Factor A

Instruction in order to meet the needs of the vocational students in the evening school presupposes their ability to profit therefrom.

*Wright and Allen, Efficiency in Vocational Education. Page 22 ff.

Evidence Obtained

All students are employed.*

They are admitted to evening courses upon statement of their present employment and experience, and their desire to attend.**

Factor B.

The subject matter taught in the evening school must be such as directly functions in the work for which the pupil is being vocationally trained.

Evidence Obtained

The content for the course is made up by the instructor.***

There is no evidence of a complete job analysis having been made upon which to base a course of study. No preliminary tests are given by which to determine needed functional content.****

The instructors are all men of considerable experience in the trade and in the opinion of the director, they are qualified to do the teaching job.**

The training received by the instructors in organizing the content of courses is limited and given by the director in the course of supervision on the job.**

A course in sheet metal layout is based on a standard shop text.****

*School Records

**Statement of the Director

***Author's Evaluation of the Courses.

****Observation by the Author of the Study.

The content of the course in theory of refrigeration is based upon the course of study of the National Association of Practical Refrigeration Engineers.*

The content of the courses for railway shop men is arranged on the basis of a partial analysis of the job. Some instruction is based upon shop failures and open requests for information. The teachers of these courses have the analysis of thirteen railway shop crafts at hand. This analysis was developed on the campus of the Colorado Agricultural College under the direction of Mr. T.H. Quigley.**

Little evidence is present which indicates highflown theory and other such forms of non-functioning content.*

There is one general course in mechanical drafting. There is some attempt being made to stress shop sketching.*

A local itinerant instructor of auto-electricity presents the electrical problems pertaining to leading makes of automobiles to the men engaged in the repair and upkeep of these makes of automobiles.***

Factor C.

In order to meet the needs of the workers attending the evening school, the instructors must have been occupationally trained in the trade or occupation in which they are employed and assigned to teach.

Evidence Obtained

The State Plan for Vocational Education sets up the minimum quali-

*Observation by the Author of the Study.

**Mimeographed Bulletin 1424, Colorado Agricultural College, Fort Collins.

***Statement of the Director.

fications for instructors of the evening classes as follows:

"They shall be masters of the content of the trade and shall have worked two years beyond the apprenticeship period in the trade.*"

An instructor from the day school with the required experience as a machinist is employed to instruct a group of railway machinists in shop sketching and blue print reading.**

The foreman of one of the larger sheet metal shops of the city instructs a group in sheet metal layout. He has taught successfully in the evening trade school for seven years.**

The assistant master mechanic and a general foreman at the Jacksonville Railway Terminal Company serve as instructors of groups of their men.**

The owner and operator of a leading auto-electric company serves as local itinerant instructor on auto-electric problems.**

A union carpenter instructs a group of house carpenters.**

There is no local record of a definite plan or statement of factors by which to judge the trade competency of instructors. They all meet requirements set up in the state plan. The instructors are selected as the result of an interview with the Director of Vocational Education, who states that these instructors represent his best judgment as to qualifications for the teaching job.***

*Florida State Plan for Vocational Education.

**School Records.

***Statement of the Director.

Factor D.

Instruction in order to meet the needs of those enrolled in the evening school should be given whenever necessary to the progress of any member of the group.

Evidence Obtained

A course in the theory of electricity is given on the basis of the formal lesson - group instruction.*

The course in sheet metal layout is given by the individual method. In this course, each man is working at his own job. In the other mechanical drafting class, the instruction is a combination of group and individual instruction.*

A course in railway shop mathematics was conducted upon the basis that the subject matter given was equally adapted to the use and needs of every member of the group. Outside study is not required.**

In all classes of study there was the absence of a checking system to show whether the instruction was complete.*

Factor E.

In order that individual needs of members of the group may be met, each should be permitted to progress as rapidly as his or her ability will permit and promotions should be made at any time on the basis of ability to do the work required.

Evidence Obtained

The director and instructor do not set any definite date for

*Observation of the Author of this Study.

**Statement of the Instructor.

completion of certain bodies of subject matter.*

There are no progress charts of any type in evidence, and no checking levels are consciously observed.**

Organization is made upon standards of performance agreed upon by the instructor and the student. In many cases, it was observed by the author of this study that the level of achievement of the individual was not known by the instructor during or subsequent to instruction. In a few cases of foremen instructing their own men, achievement was determined on the job.

Factor F.

In order to meet the training needs, work should be given on a real job.

Evidence Obtained

If the instructional jobs are mostly technical in the evening school, such equipment as is needed for demonstration is brought from the job. Some jobs taught require much power of recall and imagination, due to the use of inefficient educational methods and devices.**

Factor G.

All subject matter and training should be arranged in the most effective instructional order of learning difficulty.

Evidence Obtained

In the case of sheet metal layout, some attention is given to

*Statement of the Director.

**Observation of the Author of this Study.

arrangement of subject matter on the basis of learning difficulty. In air brake work the class was led from the theory and repair of simple valves to the more complex.*

In other courses, such as auto-electricity, shop mathematics, drawing, the instructional material is arranged so that the body of instruction becomes foundation work for that which follows.*

There is not a teacher in the evening school who by training has been prepared to consider the learning difficulty in setting up instructional material.**

Factor H.

In order to meet the needs of the pupil in the evening school, he should be trained in the occupational atmosphere and environment in which he works.

Evidence Obtained

The equipment of the courses dealing with doing jobs approaches that of industry.***

About 60 per cent of the classes meet in industrial shops. The conditions surrounding such classes are the same as when the men are at work. They may smoke, change positions, ask questions and the like, just as if they were in the shop.*

Observations on the student-teacher relations bring out the fact that the pupil is not held responsible for results in the class as he

*Observation of the Author of this Study.

**School Records.

***Statement of the Instructor and Director.

is in industry, nor does the instructor take any responsibility other than that promoted by his personal interest for the product he turns out, presumably a better trained workman.

Factor I.

The instruction and training, in order to meet the needs of the individual enrolled, should be based upon prevailing occupational standards.

Evidence Obtained

The general type job of the evening school class is the thinking job.*

The men are employed and have some apperceptive base for what is being taught and the instructor is occupationally competent.*

Factor J.

Repetitive training in the use of subject matter taught should be given to the extent that the learner will be able to use what he has learned on the job.

Evidence Obtained

There was some evidence displayed where repetitive experience in thinking through the problems being taught was given to the point where thinking performance was assured on the job.*

In certain doing jobs the application of principle was inadequate as in the sheet metal layout course.*

*Observation of the Author of this Study.

No records are kept of performances in the class or out on the job.*

Factor K.

In order to meet the needs of the pupils enrolled in the evening school, efficient use must be made of educational procedures, methods and devices with regard to character of the teaching job, characteristics of the instructional group and the working conditions.

Evidence Obtained

Outside of two foremen in the railway shops and the one in sheet metal, the teachers have had no organized training in the selection and use of educational procedures.*

Straight question and answer procedures and some lecture work has been observed in the evening courses by the author of this study. The typical showing and telling how methods, without adequate tests to determine whether the instruction was complete, are in common use among the instructors.**

*School Records.

**Observation of the Author of this Study.

SUMMARY AND CONCLUSIONS ON THE EVENING SCHOOL

Factor A.

The evidence presented approaches complete assurance of the students' ability to profit from the instruction. They are employed in the occupation for which they are taking training, thereby we are assured of an apperceptive base and since the instruction given is on the work they are doing, there seems little question as to the potential profit to the individual.

A rating of nine was given on the basis of this evidence.

Factor B.

The statements under Factor B. bring to light a lack of use of the most reliable source of course content, viz., the analysis of the job or trade. In all probability some courses permit standardization to some extent as in the case of the sheet metal layout. Others showed greater returns as based upon the job analysis. The Instructor's part depends upon his ability to analyze the content of the trade and to arrange it in the order which meets the individual's needs. Occupational and teaching competency on the part of the instructor is assumed.

A rating of six was given on the basis of this evidence.

Factor C.

The evidence shows that the instructors are well qualified from

the standpoint of occupational experience. However, there are no records to show that the teachers have the added assets as listed:

1. Ability to "put over" (teach) skill and knowledge to others.
2. Executive ability in planning and carrying out his plans.
3. Ability to analyze his trade or occupations for industrial purposes.
4. Interest in, and sympathetic understanding of, student workmen.
5. Good health and vigor.
6. At least a fair personality.
7. Necessary minimum of general education.
8. Good standing as a workman and as a citizen.*

The evidence does show that the director's judgment as to whether these assets are possessed by the prospective instructor is exercised in his selection.

A rating of eight was given on the basis of this evidence.

Factor D.

The indication is that individual instruction is not generally complete, i.e. not to the extent of adequate producing, doing or thinking performance. In some cases cited, the training is given on an individual basis. The information shows that individual instruction is given in courses where the objectives are to produce doing ability.

*Adult Education; The Evening Industrial School by Prosser and Bass, page 157, Century Book Company, New York.

On the basis of this evidence a rating of five was given.

Factor E.

The methods of determining progression are subjective as shown by the information secured. No outward evidence is present of the conscious use of any device whereby time for progression is determined.

No set time for completion of a lesson or course and the use only of the instructor's judgment, which is reliable only to the extent of training and practice, are factors considered in giving a rating of five on the basis of the evidence presented.

Factor F.

The evidence shows that the conditions are about the most favorable which could be produced for evening classes.

Factor G.

No evidence is presented which shows that the order of learning difficulty has been consciously observed. By accident only is such an arrangement obtained, as in the case where production or logical order of arrangement parallels the actual order of learning difficulty.

In so far as knowledge of the job in the shortest time possible may be considered as a need, the evidence under this factor applies. If the time element is not important, necessity for the arrangement

of the subject matter in the order of learning difficulty is discounted.

A rating of four was given on the evidence presented.

Factor H.

About the only unfavorable comparison that can be made as to the industrial atmosphere of the evening school is the fact that in industry one big factor which strengthens the learning process is the requirement to learn or get out of the job. Foremen as instructors labor under the same conditions, viz., get results from the workmen or get out. In the case of students enrolled in the evening school, the analogy is weakened because the responsibility for learning on the part of the student and the responsibility for teaching on the part of the instructor are not present to the same extent that they are in industry. It is to be recognized, however, that the students enrolled are an uncontrolled group; they have recognized their need and will voluntarily drop the course if they fail to get what they consider meets their need on the job.*

A rating of eight was given on the evidence presented.

Factor I.

The eligibility requirements of the evening school student predicated holding a job. The statement is given that most of the evening school instruction is on a thinking job and given by men who are occupationally competent. As stated in the discussion above, the men enrolled have a large apperceptive base.

An occupationally competent teacher plus a class membership

*When is an Evening Class a Flop, Term Paper Presented on the Colorado Agricultural College Campus by Sidney Owen, Otto J. Dorr, L.H.Funkey and C. O. Holley.

regularly employed would indicate that the standards of the trade are pretty well adhered to.

A rating of seven was given.

Factor J.

The information secured would justify some question as to whether repetition in the thinking performance is adequate. As in a doing job, if the evening school does not train a person to the point where satisfactory performance is assured, his needs are not met. The absence of records showing performances in the class or on the job subsequent to instruction is evidence of too little consideration of repetitive experience.

From the evidence presented, a rating of five was given.

Factor K.

The evidence shows that the teachers have a limited amount of training in the selection and use of educational procedures. On the job a good majority of the instructors are foremen. They have acquired methods of instructing and have succeeded under the standard set up by the industry. The jobs they have taught in the shops have been more of the doing type. The experience of the author in foreman training prompts the statement that the average foreman knows or recognizes little of the basic procedures; for instance, in a teacher-training job requiring the four formal steps of teaching, he usually uses only one - "presentation."

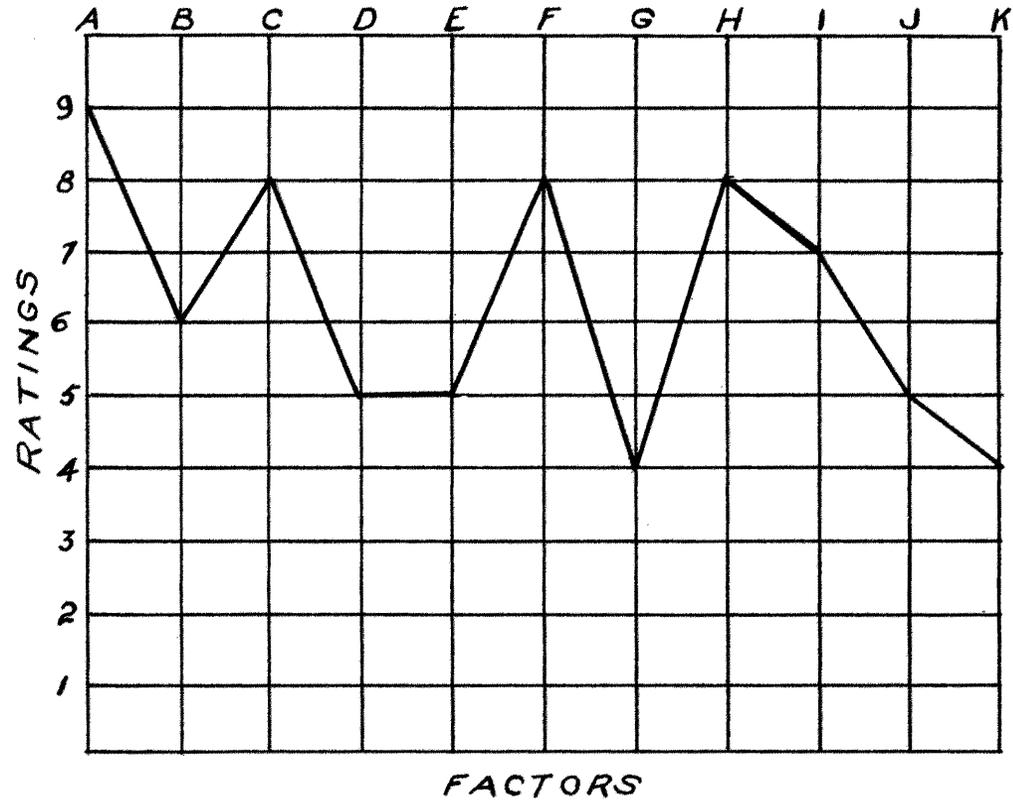
On the basis of the evidence presented, a rating of four was given.

As a complete summary of the degree to which the evening school meets the needs of those enrolled as based upon the evidence presented in the factors used, the following graph is presented.

It is to be noted that the factors in this graph do not correspond to the factors carrying the letter in the continuation school graph of page 36.

GRAPH II

SHOWING SUMMARY RATINGS ON FACTORS PERTAINING TO
EVENING TRADE AND INDUSTRIAL EDUCATION CLASSES
JACKSONVILLE, FLORIDA, 1930



III THE SCOPE OF TRADE AND INDUSTRIAL TRAINING IN THE CITY OF JACKSONVILLE, FLORIDA

As an introduction to the presentation of evidence on this part of the problem, the following description of the probably^c field of service is given:

Jacksonville, Florida is a city of 129,682 population,* located in the extreme eastern part of the State. It is properly called the gateway city because of the fact that practically all lines of land and air transportation enter the State at this point. Also, it is an important center for water transportation, having splendid docking facilities and ample protection for sailing vessels of the type plying the eastern shores of the United States. Its port is located on the St. Johns River.

The Mallory and Clyde lines, water transportation; the Southern Atlantic Coast line, Seaboard Air Line, and Florida East Coast Railway systems, railway transportation; Florida State Highway No. 4, running north and south and No. 1 running east and west, land transportation; and a direct air line between northern cities and countries to the south all provide available outlets for any type of transportation desired.

Present Activities

It is the chief distributing center for a large body of products supplied to the other parts of the state. Like other Florida cities it is essentially of the commercial type. Its industrial and commercial activities take classification under the headings shown in Table IV which is given on page 55.

*Federal Census 1930.

Information and data presented on the part of the main problem with which we are dealing was secured from the following sources:

1. The industries.
2. Chamber of Commerce.
3. Other surveys used by permission.
4. Labor officials.
5. Directories.
6. Publications of organizations.
7. City Director of Vocational Education.

As previously stated the character and reliability of evidence and data secured depends chiefly on the source and methods employed. The data shown in the following tables was therefore a result of conferences with industrial leaders, personal solicitation, payrolls and the like. The reliability does not approach that of a regular census. The methods of securing the data which are mentioned were pursued to the end of revealing satisfactory evidence from which to draw conclusions as to the fields or occupations in which people in Jacksonville work, and whether the present program is taking care of their vocational training needs.

TABLE III

THE INDUSTRIAL AND COMMERCIAL FIELDS IN WHICH TRAINING WAS GIVEN
 IN JACKSONVILLE, FLORIDA
 1929-30

Type	Fields	Subject	Number Enrolled	
Evening Trade Extension	Refrigeration Railway	Refrigeration Problems	10	
		Railway Car Repair	51	
		Air Brake Repair	25	
	:		Shop Mathematics	10
	:		Shop Sketching	21
	:		Machine Shop Mathematics	14
	:		Foremanship Training	10
	:	Sheet Metal	Layout	16
	:	Electrical	Electrical Practice	25
	:	Automobile Repair	Auto-electric Problems	52
	:	Carpentry	Steel Square	10
	:	Oil	Service Station Management	41
	:	Machinists	Shop Sketching and Blue Print Reading	21
Part-time Continuation	Commercial	Shorthand	}	
		Typing		
		Bookkeeping		
		Business English		
		Office Practice		
	:			
	:			
	:			
	:	Shop		
	:	General Education		
	:	Arithmetic		
	:	Citizenship Training		
	:	English		
:	Spelling			
:	High School Subjects			
:	Home Making			
:	Cooking			
:	Table Service			
:	Sewing			
:	Meal Planning			
			527	

Any complete survey should include the number of people employed in the various occupations in the community. The following tables indicate the number employed and the occupations in which they find such employment.

TABLE IV

THE NUMBER AND CLASSIFICATION OF WORKERS
IN JACKSONVILLE, FLORIDA, 1930

Class	Skilled	Unskilled	Male	Female	White	Colored	Total
Food Products	772	2143	1783	1132	1545	1370	2915
Textiles	59	14	26	47	67	6	73
Iron and Steel	125	196	318	3	214	107	321
Forest Products	365	503	817	51	379	489	868
Paper and Printing	280	111	290	101	369	22	391
Chemicals	196	1065	1202	59	448	813	1261
Stone, Clay and Glass	131	392	523	none	211	312	523
Metal Products	21	46	66	1	25	42	67
Tobacco	805	137	299	643	675	267	942
Machinery	43	38	76	5	58	23	81
Transportation Equipment	963	249	1206	6	1065	147	1212
Railroad Repair	1360	490	1827	23	1284	566	1850
Miscellaneous	151	93	193	51	179	65	244
Totals	5271	5477	8626	2122	6519	4229	10748

Survey Conducted by the Chamber of Commerce, Jacksonville, Florida.

TABLE V

THE INDUSTRIAL FIELDS IN WHICH WORKERS ARE EMPLOYED
IN Jacksonville, Florida

Automobile Repair	Hotel Service
Body Work	Interior Decoration
Auto Top and Paint	Ornamental Iron Work
Auto Electrical	Laundries
Batteries Repair and Building	Machinist
Awning Manufacture & Installation	Radio
Baking	Stone Cutting
Banking	Tile Setting
Barbering	Mattress manufacture
Beauty Culture	Meat Cutting
Blacksmithing	Janitorial Engineering
Blue Printing	Painting
Boat Building	Photography
Paper Bags and Box Manufacture	Plastering
Broom Making	Plumbing
Cabinet Making	Printing
Candy Manufacture	Cooking
Carpentry	Table Service
Cigar Making	Roofing
Cleaning and Dyeing	Screen Making
Cement Construction	Sheet Metal
Dental Mechanics	Shoe Repairing
Department Store Work	Sign Painting
Electrical Appliance Repair	Electric Railway Service
House Wiring (Electrical)	Power House Operation
Marine Engine Repair	Vulcanizing
Foundry Work	Railway Shop
Refrigeration	Millwork
Glazing	Oil - Station Service
Nursing	Wall Paper Hanging

Telephone Directory, Southern Bell Telephone and Telegraph Company, Jacksonville
Florida, 1930, Classified Advertising Section.

TABLE VI

THE NUMBER OF MECHANICS EMPLOYED IN 22 OF THE LARGER AUTOMOBILE REPAIR AND SERVICE GARAGES OF JACKSONVILLE, FLORIDA, THEIR CLASSIFICATION AS TO RACE AND WHERE EMPLOYER SECURES NEW MEN

Garage	No. Journeyman Mechanics		No. Apprentice Mechanics		Where New Men are Secured
	White	Negro	White	Negro	
Shackelford					
Royal Motors	6	0	1	0	On Application
Futch Motor Company	3	0	0	2	" "
Franklin Agency	2			2	" "
Buick Agency	12				" "
Buick Garage	8		1		" "
Packard	8				" "
Carter-Sawyer	13				" "
Reo	5				Pick Up
Hudson-Essex	3		1	1	On Application
Andrews (Main Street)	1				" "
Andrews (Forsyth)	1				" "
Cadillac	16				" "
Chevrolet	15		2	3	" "
Ford	30		3		" "
Chrysler	6		1		" "
Hupmobile	11		1		" "
Estaver	1				Pick Up
Boatright	1				" "
Wheatley	2				On Application
Dodge	14				" "
Nash	4				" "
Auburn	4				" "
Totals	162		10	8	

TABLE VII

MISCELLANEOUS INDUSTRIES AND TRADES IN JACKSONVILLE, FLORIDA
WITH THE APPROXIMATE NUMBER OF WORKERS IN EACH

Industry	No. Surveyed	No. of Workers
Bakeries	34	536
Barbershops	105	450
Laundries	12	703
Radio mechanics		40
Battery repair	22	52
Beauty parlors	42	168
Paper Hangers		40
Cleaners and Dyers	109	327
Hospitals	4	137*
Plumbers	42	180
Electrical Refrigeration		41
Carpenters		800
Bricklayers		200
Printing		391
Electricians		175
	TOTAL	<u>4240</u>

The Figures in the above table were secured by personal survey of the larger concerns supplemented by estimates of leaders in these concerns regarding others, also by trade leaders in the building trades.

*State Board of Nurses' Examiners' report as to number of students in training.

TABLE VIII

LEVELS AT WHICH PEOPLE MAY WORK IN INDUSTRIAL OCCUPATIONS
IN THE CITY OF JACKSONVILLE, FLORIDA

AUTOMOBILE REPAIR

Acetylene Welder
Electrical Man

General Repair Man
Top and Body Repair

BAKING

Bench Man
Bench Helper
Cake Icer
Doughnut Baker
Flour Blender
Janitor
Machine Man
Mixer

Mixer's Helper
Oven Helper
Oven Man
Packer
Pan Greaser
Shipping Clerk
Stock Room Man
Truck Loader

BARBERING

Comb and Brush Sterilizer
Hair Cutting
Hair Dyer
Hair Singeing
Manicurist

Massage Work
Scalp Treatment
Shaving
Shoe Shiner
Tie Presser

BATTERY SERVICE

Auto Trucker
Battery Assembler
Battery Charger
Battery Filler
Box Maker
Crimper

Grid Coster
Lead Burner
Plate Paster
Separator Trimmer
Tester

BEAUTY CULTURE

Dyeing
Eyebrow Arching
Facials
Hair Cutting
Manicuring
Massages
 Scalp
 Face
Shampoos

Singeing
Tinting
Waving
 Finger
 French Curl
 Marcelling
 Permanent
 Round Curl
 Water

BLUE PRINTING

Blue Printer
Blue Print Machine Feeder
Errand Boy

Sepia Print Washer
Supervisor

TABLE VIII (Continued)

BUTCHER SHOP

Counter Man
Meat Luger, Retail

Meat Cutter

CANDY MANUFACTURE

Candy Maker
Chocolate Dipper
Engineer
Fireman
Delivery Man

Packer
Plant Mechanic
Stock Keeper
Shipper
Tier and Wrapper

CARPENTRY

Finisher
Foreman
Form Builder

Framer
Shingler
Stair Builder

CEMENT CONSTRUCTION

Finisher
Form Builder

Machine Tender
Mixer

CIGAR MAKING

Box Maker
Bunch Maker
Labeler
Roller - Hand

Roller - Machine Operator
Packer
Sorter
Shipper

CLEANING & DYEING

Bushel Man
Cleaner
Delivery Clerk
Delivery Man
Dyer
Garment Steamer
Hatter
Spotter

Head Cleaner
Inspector
Lace Curtain Cleaner
Machine Finisher
Marker
Repairer
Rug Cleaner

TABLE VIII (Continued)

DEPARTMENT STORE

Addressograph Operator	Marker, Goods Sales Clerks, Parcels
Advertising Packer	Milliner, Work Room
Artist	Nursery Attendant, Sales Promotion Department
Auto Mechanic, Delivery Dept.	Order Board, Oper. Mail Order Dept.
Chauffeur, Delivery Dept.	Order Checker, Mail Order Department
Checker, Goods Sales Clerk, Parcels	Packer Goods, Sales Clerks, Parcels
Corset Fitter, Work Room	Parcel Collector (boy) Goods Sales Clerks, Parcels
Customer's Cloak Room Attendant Sales Promotion Dept.	Parcel Wrapper, Goods Sales Clerks, Parcels
Customer's Parcel Clerk, Goods, Sales, Clerks, Parcels	Pharmacy Attendant, Work Room
Desk Cashier, Goods, Sales, Clerk, Parcels	Plumber, Engineer, Int. Alt.
Displayer, Sales Promotion Dept.	Porter, Engineer, Int. Alt.
Drapery Service Man	Receiving Clerk Goods, Sales Clerk, Parcels
Electrician Engineer, Int. Alt.	Record Clerk, Delivery Department
Elevator Operator, Engrn. Int. Alt.	Returned Goods Clerk, Delivery Dept.
Employees Cloak Room Attendant, Sales Promotion Dept.	Routing Clerk, Delivery Department
Floor Man, Goods, Sales Clerks, Parcels	Runner Mail Order Department
Furniture Repair Man, Work Room	Salesman, Goods, Sales Clerk, Parcels
Graphotype Operator, Mail Order Department	Shoe Checker and Marker, Goods, Sales Clerks, Parcels
Hardware Checker and Marker, Goods Sales Clerks	Shoe Repairer, Work Room
Hosiery Repairer, Work Room	Shoe Shiner
Interior Alterer, Engineer, Int. Alt.	Special Shopper, Mail Order Dept.
Jewelry Repairer, Work Room	Stock Room Worker, Goods, Sales, Clerk and Parcels
Kitchen Helper, Work Room	Stubber, Delivery Department
Ladies Alteration Seamstress, Work Room	Supply Man, Sales Promotion Department
Try Out Man, Sales Promotion Department	Sweeper, Engineer, Int. Alt.
Mail Boy, Mail Order Department	Telephone Operator, Mail Order Dept.
Maintenance Man, Engineer, Int. Alt.	Tube Cashier
Window Trimmer, Sales Promotion Dept.	Welfare Worker, Sales Promotion Dept.

ELECTRICAL APPLIANCE REPAIR

Armature Rewinder	Coil Taper
Armature Winder	Field Coil Winder
Bench Repairman	Tool and Stock Room Man
Coil Dipper and Baker	

HOUSE WIRING (ELECTRICAL)

House Electrician	Journeyman Helper
-------------------	-------------------

TABLE VIII (Continued)

FOUNDRY WORK

Bench Moulder
Chipper and Grinder
Core Maker
Floor Moulder

Furnace Man
Ladle Man
Rattler Room Worker

GLAZING

Plate Glass Cutter
Plate Glass Setter
Window Glass Cutter

Window Glass Glazier
Still Sash Glazier

HOTEL SERVICE

Assistant Houseman, Housekeeping Dept.
Assistant Manager, Front Office
Baker, Kitchen Department
Bell Boy, Service Department
Bell Captain, Service Department
Bookkeeper, Front Office
Boiler Washer, Engineering Dept.
Buss Boy, Dining Room
Butcher - Fowl and Fish, Kitchen Dept.
Butcher - Meat
Cabinet Maker, Housekeeping Dept.
Carpenter, Housekeeping Department
Carrier, Housekeeping Department
Cashier, Dining Room Department
Cashier, Front Office
Chamber Maid, Housekeeping Dept.
Check Room Girl, Service Dept.
Checker (Kitchen)
Chef, Kitchen Department
Chief Clerk, Front Office
Chief Engineer, Engineering Dept.
Cleaning Maid, Housekeeping Dept.
Coffee Woman, Stewarding Dept.
Counter, Housekeeping Department
Cutter, Housekeeping Department
Department Head Waiter, Dining Room
Disburser, Housekeeping Department
Dishwasher, Stewarding Department
Dish Dryer, Stewarding Department
Door Man, Service Department
Electrician, Engineering Dept.
Elevator Operator Service Dept.
Elevator Starter, Front Office
Finisher, Housekeeping Department
Fireman, Engineering Department

Food Controller
Fry Cook, Kitchen Department
Garden Manager, Kitchen Department
Glass Washer, Stewarding Department
Head Carpenter, Housekeeping Dept.
Head Housekeeper, Housekeeping Dept.
Head Houseman, Housekeeping Dept.
Head Porter, Service Department
Head Waiter, Dining Room Dept.
Head Wrap Checker, Service Dept.
House Officer, Service Department
Head Man, Housekeeping Dept.
Ice Man, Stewarding Department
Information Clerk, Front Office
Inspectress, Housekeeping Dept.
Key Clerk, Front Office
Kitchen Omnibus Man, Stewarding Dept.
Lobbyman, Housekeeping Department
Mail Clerk, Front Office
Mail Superintendent, Front Office
Maitre de Hotel, Front Office
Manager, Front Office
Painter, Housekeeping Department
Pantry Girl, Stewarding Dept.
Parlor Maid, Housekeeping Dept.
Pastry Chef, Kitchen Department
Pastry Helper, Kitchen Department
Phone Girl, Front Office
Plumber, Engineering Department
Porter, Service Department
Power Machine Operator, House-
keeping Department
Potato Peeler, Kitchen Department
Pot Washer, Kitchen Department
Receiving Clerk

TABLE VIII (Continued)

HOTEL SERVICE (Continued)

Roast Cook, Kitchen Department
Room Captain, Dining Room
Room Clerk, Front Office
Room Waiter, Dining Room
Roundsman, Kitchen Department
Scrub Man, Housekeeping Dept.
Second Cook, Kitchen Dept.
Seamstress, Housekeeping Dept.
Silverman, Stewarding Dept.
Watch Engineer, Engineering Dept.

Silverwoman, Stewarding Dept.
Sorter, Housekeeping Department
Superintendent of Service,
Service Department
Upholsterer, Housekeeping Dept.
Vegetable Girl, Stewarding Dept.
Vegetable Preparer, Stewarding Dept.
Waiter, Dining Room
Yard Man, Stewarding Department

LAUNDRY

Collar Ironer
Counter Girl
Delivery Man
Distributor, Washing Dept.
Fireman
Flat Work Ironer
General Machinist

General Mechanic
Hand Ironer, Finishing Department
Parcel Wrapper
Sorter, Checker, Marker
Starcher
Washer
Wet Cleaner

MACHINIST

Assembler
Automatic Lathe Operator
Bench Lathe Operator
Bench Worker, Light Filing,
Chipping, Gauging and Fitting
Bench Work, Heavy
Broacher
Crankshaft and Camshaft Grinder
Cylinder Grinder, Fixed
Cylinder Grinder, Portable
Engine Lathe Operator
Floor Grinder
Gear Cutting Machine Operator
Grinder
Hand Riveter
Horizontal Boring, Drilling and
Milling Machine Operator
Layer Out, Heavy Floor

Layer Out, Surface Work
Milling Machine Man
Milling Machine Operator
Multiple Spindle Drill Press Operator
Millwright
Planer - Heavy
Planer - Light
Punch Press Operator
Radial Drill Press Operator
Screw Machine Operator
Shaper Operator
Slotter Machine Operator
Spot Welder
Surface Grinder
Turret Lathe Operator
Vertical Boring Mill Operator
Vertical Drill Press Operator

NURSING

Junior Nurse
Practical Nurse
Graduate Nurse

TABLE VIII (Continued)

PAPER BAGS AND BOX MANUFACTURE

Back Tender	Inspector, Waste Paper Dept.
Baker	Jobbing Machine Operator
Bar Creaser Operator	Jordon Man, Waste Paper Dept.
Box Creaser Operator	Millwright
Container Printer	Paraffine Machine Operator and Feeder
Corrugated Box Slotter and Printing Press Operator	Paraffine Machine Flier and Packer
Corrugated Machine Flier	Paster
Corrugated Machine Operator	Pasting Machine Operator
Cross Conveyer Operator, Waste Paper Department	Picker
Cutter Operator	Piler
Cutter Tender	Press Feeder
Cutter and Scoring Press Feeder	Press Operator
Cutter and Scoring Press Flier	Printer, Type Setter
Cutter and Scoring Press Operator	Shaving Tender
Electrotyper	Shipping Clerk
Fiber Creaser and Slotter Operator	Slitter Man
Fiber Printing Press Feeder	Slitter Operator
Finisher or Typer	Slitting Machine Operator
Flier	Slotter Operator
Flier Glue Machine	Slotter Machine Operator
General Helper	Stitcher
Glue Machine Feeder	Stitching Machine Operator
Glue Machine Operator	Stock Keeper, Waste Paper Dept.
Hand Taper	Stripper
Helper	Tier
Trolley Car Operator, Waste Paper Department	Trucker

POWER AND LIGHT

Apprentice, Switch Board Operator	Cable Crew Splicer, Helper
Assistant Chief Clerk, Meter Dept.	Changer and Installer, M.L.S., Distributing Department
Assistant Chief Engineer	Chart Remover, Meter Department
Assistant General Foreman, Distributing Plant	Chief Clerk, Meter Department
Boiler Cleaner	Chief Engineer
Boiler Room Engineer	Chief Load Dispatcher
Boiler Room Foreman	Chief Operator
Cable Crew Foreman	Chief Tester, Meter Department
Cable Crew Splicer	Clerk on Checking, Meter Department
Cable Crew Splicer, Foreman	Clerk on Demand, Charts Department

TABLE VIII (Continued)

POWER AND LIGHT (Continued)

Clerk on Orders, Charts Dept.	Linehelper, Distribution Dept.
Clerk on Tests, Charts Dept.	Loantester and Voltage Surveyor
Conduit and Pipe Foreman	Material Clerk, Distribution Dept.
Distribution Checker, Utility Dept.	Meter Tester (Outside)
Electrician	Meter Tester (Inside)
Feeder Estimator	Plant Results Clerk
Fireman	Plant Results Engineer
Foreman, Distribution Department	Plant Storekeeper
General Foreman, Distributing Plant	Relay Tester
Globe Cleaner	Repair Machinist
Ground Man, Distribution Dept.	Repair Machinist Helper
Hanger and Cable Changer, Distribu- tion Department	Shop Foreman, Distribution Dept.
Instrument Man	Shop Foreman, Meter Department
Skilled Laborer, Distribution Dept.	Transmission Engineer, Distribution Department
Lineman, Distribution Department	Truck Driver

RADIO SERVICE

Bench Repair Man	Machinist
Dispatcher	Service Salesman
Engineer	Stock Clerk
Installer	Tester

RAILROAD SHOPS

Air Brake Repair - Freight	Heavy Steam Hammer Operator, Blacksmith Department
Air Man, Coach Repair	Blacksmith, Car Repairing (Heavy)
Apprentice Car Repairer	Blacksmith, Car Repairing (Light)
Apprentice Coach Repairer	Blacksmith Helper, Car Repairing
Apprentice Locomotive Repairer	Boiler Maker, Boiler Making Dept.
Apprentice Motor Car Repairer	Boiler Maker, Roundhouse
Apprentice Tin Shop	Boiler Maker, Helper, Boiler Making Department
Apprentice Pipe Shop	Boiler Washer, Coach Repair
Automatic Ear Machinist	Boiler Washer, Roundhouse
Axle Lathe, Wheel and Axle Repair	Boiler Washer, Helper, Roundhouse
Axle Lathe Operator	Bolster Repairer
Bell Lathe Operator	Bolt Lathe Operator
Bench Man, Locomotive Repair	Bolt Threader Locomotive and Car Repair
Bench Man, Tin Shop	Brake Beam Repairer
Blacksmith, General, Blacksmith Department	Cabinet, Coach Repairer
Apprentice Blacksmith, Black- smith Department	

TABLE VIII (Continued)

RAILROAD SHOPS (Continued)

Cinder Pit Man	Flue Welder, Helper, Boiler Making Department
Clerk, Roundhouse	Forge Machine Operator, Blacksmith Department
Coach Carpenter	Fox Lathe Operator (Brass) Locomotive Department
Coach Cleaner	France Planer Operator, Locomotive Repair
Coach Painter (Inside)	General Man, Locomotive Repair
Coach Painter (Outside)	General Man, Tin Shop
Compressorman	Guide Man, Locomotive Repair
Crane Engineer, Store Keeping Department	Helper, Blacksmith Department
Crane Man, Boiler Making Dept.	Hostler Helper, Miscellaneous, Roundhouse
Crane Man, Locomotive Repair	Hydraulic Press Operator
Creosoter, Car Repair	Injector Bench Man, Locomotive Repair
Cross Head and Knuckle Pin Lathe Operator, Locomotive Department	Inside Craneman, Wheel and Axle Repair Department
Cutting Torch Operator, Car Repair	Inspector, Boiler Making Department
Drill Press Operator, Boiler Making Department	Inspector, Wheel and Axle Repair Department
Drill Press Operator, Car Repair	J & I Flat Turret Man, Locomotive Department
Drill Press Operator (Radial) Locomotive Department	Jack Repairer, Car Repair
Drill Press Operator (Vertical) Locomotive Department	Journal Lathe, Wheel and Axle Repair
Drill Press Operator, Miscellaneous, Round House	Laborer, Blacksmith Department
Layer Out, Boiler Making Department	Laborer, Coach Repair
Driving Box, Mill Operator, Locomotive Department	Laborer, Cleaner, Motor Car
Driving Box Planer, Locomotive Dept.	Laborer, Repair Shop
Driving Box Saddle Mill Operator, Locomotive Department	Laborer, Store Keeping Department
Dry Pipe Man, Locomotive Repair	Lathe Man, Locomotive Repair
Eccentric Bench Man, Locomotive Repair	Lay Out Man, Car Repair
Electric, Truck Driver, Storekeeping Department	Link Bench Man, Locomotive Repair
Electrician, Coach Repair	Link Motion Lathe Operator, Locomotive Repair
Electrician (Power Plant) Coach Repair	Locomotive Painter, Car Repair
Electrician, Roundhouse	Lubricator Bench Man, Locomotive Repair
Elevator Operator, Coach Repair	Lubricator and Grease Cup Filler, Roundhouse
Engine Watchman, Miscellaneous, Roundhouse	Machinist, Roundhouse
Fire Builder, Miscellaneous, Roundhouse	Machinist, Motor Car Repair Shop
Fitter (Steel car) Car Repair	Machinist and Boiler Maker, Helper, Roundhouse
Flanger, Boiler Making Department	Material Keeping Department
Flanger, Helper, Boiler Making Dept.	Material Writer, Car Repair
Flue Welder, Boiler Making Department	

TABLE VIII (Continued)

RAILROAD SHOPS (Continued)

Milling Machine, Locomotive Repair	Roof and Truck Painter, Car Repair
Milling Machine Operator, Locomotive Repair	Salvage Man (Bolts and Washers), Car Repair
Morton Draw Cut Shaper Operator, Locomotive Repair	Salvage Man (General), Car Repair
Moulder (Brass Foundry) Coach Repair	Scrap Reclaimer, Store Keeping Department
Night Store Man, Storekeeping Dept.	Scrap Sorter, Store Keeping Dept.
Oil House Man, Miscellaneous, Roundhouse	Shear Press Operator, Car Repair
Oiler, Car Repair	Shoe and Wedge Man, Locomotive Repair
Outside Craneman, Wheel and Axle Repair Department	Shoe and Wedge Miller, Locomotive Repair
Oxy-acetylene Welder, Boiler.	Slotter, Locomotive Repair
Oxy-acetylene Welder, Roundhouse	Special Craftsman, Car Repair
Oxy-acetylene Welder, Blacksmith Department	Special Craftsman, Helper, Car Repair
Packing Renovator, Car Repair	Speed Rec. Gov. Air Devices, Locomotive Department
Packing Renovator Helper, Car Repair	Spring Rigging Bushing Lathe Operator, Locomotive Department
Packing Ring Lathe Operator, Locomotive Repair	Stationary Engineer, Coach Repair
Painter, Roundhouse	Stationary Engineer, Coach Repair
Painter (Spray), Car Repair	Steam Fitter, Coach Repair
Patch Painter, Coach Repair	Steam Fitter, Pipe Shop
Pattern Maker, Coach Repair	Steam Fitter, Roundhouse
Piston Lathe Operator, Locomotive Department	Steam Hammer Operator (Heavy)
Piston Valve Lathe Operator, Locomotive Department	Steam Hammer, Blacksmith Department
Planer (General), Locomotive Dept.	Steam Hammer Operator, Blacksmith Department (small)
Pop and Relief Valve Lathe Operator, Locomotive Repair	Stencil Cutter, Car Repair
Punch Press Helper, Boiler Making Department	Stock Man, Store Keeping Department
Punch Press Operator, Boiler Making Department	Stock Messenger, Store Keeping Dept.
Punch Press Operator, Car Repair	Stripper (Steel Car) Car Repair
Punch and Shear Operator, Blacksmith Department	Stripping and Assembling, Air Brake Gear, Locomotive Department
Reamer (Steel car), Car Repair	Stripping and Assembling, Foundation Brake Gear, Locomotive Department
Repair Machinist, Wheel and Axle Repair Department	Supply Store Keeper, Store Keeping Department
Reverse Lever Bench Man, Locomotive Department	Sweeper, Miscellaneous, Roundhouse
Rivet Heater, Car Repair	Tank Man, Roundhouse
Riveter (Steel car), Car Repair	Tinner, Roundhouse
Rod Bench Man, Locomotive Repair	Tinner, Car Repair
Rod Bushing Lathe Operator, Locomotive Repair	Tinner, Coach Repair
	Tinner, Helper, Car Repair
	Tire Borer, Wheel and Axle Repair Dept.
	Tire Heater, Wheel and Axle Repair Department
	Tire Mill Operator, Locomotive Dept.

TABLE VIII (Continued)

RAILROAD SHOPS (Continued)

Tool Checker, Boiler Making Department	Valve Setter, Locomotive Repair
Tool Checker, Locomotive Dept.	Warehouse Trucker, Store Keeping Department
Tool Checker, Miscellaneous, Roundhouse	Watchman, Coach Repair
Tool Dresser, Blacksmith Dept.	Watchman, Locomotive Repair
Tool Grinder, Locomotive Dept.	Watchman, Wheel and Axle Repair
Transfer Man, Locomotive Dept.	Welder (Oxy), Car Repair
Triple Valve Repairer, Car Repair	Wheel Borer, Wheel and Axle Repair Department
Truck Man, Car Repairing Dept.	Wheel Lathe, Wheel and Axle Repair Department
Truck Man, Car Repairing Dept.	Wheel Lathe, Locomotive Repair Dept.
Truck Man, Coach Repairing Dept.	Wheel Mater, Wheel and Axle Repair Department
Truck Side Repairer, Car Repair	Wheel Press, Wheel and Axle Repair Department
Turntable Operator, Miscellaneous, Roundhouse	Wiper, Coach Repair
Upholsterer, Coach Repair	Wipers, Round House
Utility Man, Locomotive Repair	
Valve Man, Locomotive Repair	
Sash Painter, Car Repair	

SASH AND DOOR

Belt Sander Operator	Rail Road Cut Off, Helper
Block and Spindle Machine Operator	Sash Assembler
Broom Sander Operator	Sash Squeeze Operator
Chain Mortiser Operator	Saw Filer and Millwright
Frame Assembler	Screen Tacker
Glazier	Shaper Operator
Hand Carver	Surfacer Operator
Hand Jointer Operator	Swing Saw Operator
Horizontal Mortiser Operator	Table Saw Operator
Ornamental Moulder Operator	Tenoner Operator (single end)
Power Feed Rip Saw Operator	Tenoner Operator (double end)
Rail Road Cut Off Operator	

SHEET METAL

Acetylene Welder	Furnace Installer
Assembler	Furnace Installer Helper
Auto Radiator Repair Man	Sheet Metal Helper
Auto Sheet Metal Worker	Sheet Metal Man
Cornice and Skylight Helper	Ventilation and Blowpipe Helper
Cornice Skylight Man	Ventilation and Blowpipe Man

TAILORING

Coat Hand Sewer	Collar and Shoulder Baster
Coat Maker	Machine Sewer
Collar Maker	

TABLE VIII (Continued)

UPHOLSTERY

Arm Upholsterer	Cleaner
Back Upholsterer	Finisher
Cutter	Packer and Shipper
Cushion Closer	Trimmer
Cushion Filler	Webber

Allen, Chas. R., and Prosser, Chas. A. - A Survey to Determine Employment Opportunities for Handicapped Persons. Minneapolis, Minnesota, 1930.

TABLE IX

RESULTS OBTAINED FROM A QUESTIONNAIRE PRESENTED TO 15 GIRLS ENROLLED
IN THE HOME-MAKING COURSES IN THE JACKSONVILLE PART-TIME SCHOOL

Activities in Which the Girls are Engaged	Frequency		::	Activities in Which the Girls are Engaged	Frequency	
	Often	Seldom			Often	Seldom
Make own bed	14	1	::	Help plan family budget	3	1
Care of own room	13	1	::	Do marketing	6	6
Care for own clothing	12	3	::	Plan meals	7	5
Select own clothing	11	4	::	Set the table	9	5
Select and care for own shoes	12	2	::	Wait on the table	10	3
Select own hats	11	1	::	Prepare breakfast	7	7
Make own clothing	2	13	::	Prepare lunch	5	8
Wash own clothing	8	6	::	Prepare dinner	6	3
Dryclean own clothing	7	6	::	Prepare and cook vegetables	7	4
Press own clothing	11	2	::	Prepare and cook fruits	3	9
Wash own hose	15		::	Prepare and cook meats	3	6
Darn own hose	10	5	::	Make and bake bread	3	4
Make over own clothing	4	9	::	Prepare salads and desserts	4	9
Remove stains	5	7	::	Care for younger children	6	4
Shampoo own hair	13	2	::	Make clothing for children	2	3
Wash own comb and brush	14	1	::	Read and play with children	5	4
Care for own nails	14		::	Plan and have party for self and others	2	6
Iron own clothing	12	2	::	Help mother entertain	2	8
Wash and iron clothing for family	2	6	::	Plan and prepare for picnic	2	7
List laundry	4	6	::	Plan family recreation	2	8
Clean and care for— entire house	7	7	::	Bring friends home	9	4
Care for living room	2	5	::	Answer telephone	10	2
Care for dining room and kitchen	7	6	::	Entertain a caller	5	8
Care for bathroom	5	7	::	Attend Church & Sundayschool	13	2
Care for bathtub and other fixtures	7	5	::	Belong to club(school, 4H, etc)	7	2
Clean and dust hall, porch, floors, furniture, etc.	6	5	::	Take part in Church program	5	6
Wash dishes	8	7	::	Attend movies	11	4
Clean stove, vessels, refrigerator, silver- ware, mirrors, etc.	7	5	::	Dance	4	5
Arrange pictures and furnishings	8	4	::	Swim	5	6
			::	Have boy friend company once a week or more	8	1
			::	Read daily newspapers	14	
			::	Read magazines and books	10	5
			::	Read to mother or father	3	1
			::	Care for sick in home	6	4
			::	Help in store or office	7	2
			::	Do fancy work	6	5
			::	"Mother" the family	4	1
			::	"Keep house" for others	3	2
			::	Have own allowance	5	4
			::	Keep own expense account	9	2

TABLE IX (Continued)

Activities in Which the Girls are Engaged	Frequency		:	:	:	:	Activities in Which the Girls are Engaged	Frequency	
	Often	Seldom						Often	Seldom
Earn money for own use	7	3	:	:	:	:	Drive care for family	3	2
Make own deposits in bank	7	3	:	:	:	:	Plan and care for flowers	5	3
Have own savings account	9	2	:	:	:	:	Care for pets and poultry	6	2
			:	:	:	:	Help select house furnishings	5	4

TABLE X

CITIES IN WHICH TRADE COURSES LISTED HAVE BEEN GIVEN

Trade	City	State
Acetylene Welding	Fort Smith Ponca City McComb	Arkansas Oklahoma Mississippi
Baking	Denver Lincoln	Colorado Nebraska
Battery Service	Tampa	Florida
Beauty Culture	Atlanta Green Bay Oklahoma City	Georgia Wisconsin Oklahoma
Meat Cutting (Butcher Shop)	Sheboygan Richmond	Wisconsin Virginia
Carpentry	Lake Wales Edmond	Florida Oklahoma
Cement Construction	Fort Valley Atlanta West Palm Beach	Georgia Georgia Florida
Cleaning and Dyeing	Oklahoma City	Oklahoma
Department Store	Miami Minneapolis	Florida Minnesota
Electrical Trades	Birmingham Fort Worth Miami	Alabama Texas Florida
Foundry	Eau Claire Chattanooga	Wisconsin Tennessee

TABLE X (Continued)

Trade	City	State
Hotel Service	Houston	Texas
	New Orleans	Louisiana
Laundry	Fort Valley	Georgia
	Lock Haven	Pennsylvania
Machinists	Tampa	Florida
	Tulsa	Oklahoma
Nursing	Chickasha	Oklahoma
	Greensboro	North Carolina
Power and Light	Roanoke Rapids	North Carolina
	Atlanta	Georgia
Radio	Little Rock	Arkansas
	St. Joseph	Missouri
Railroad Shop	Winston-Salem	North Carolina
	Cheyenne	Wyoming
	McComb	Mississippi
Millwork	Waco	Texas
	Camden	New Jersey
Sheet Metal	Pensacola	Florida
	Tampa	Florida
Tailoring	Prairie View (Colored)	Texas
	Tallahassee (Colored)	Florida
Plumbing	Tulsa	Oklahoma
	Greensboro	North Carolina
Bricklaying	Fon du Lac	Wisconsin
	Dallas	Texas
Paper Hanging	Winston-Salem	North Carolina
	Fresno	California

*Federal Board for Vocational Education, Directory of Trade and Industrial Schools, The Board, Washington, D. C., 1930.

Table III, page 55 shows the present scope of industrial training in Jacksonville. When compared with tables IV and V given on pages 56 and 57 respectively, the inadequacy of the program as it now stands is unquestionably revealed.

There may be conditions present in the industrial and commercial occupations, in their management, size and the limited amount of training necessary for some semi-skilled process jobs, which do not encourage organized training on any basis outside the plant. Excluding such cases as might fall in this category there yet remains a large industrial and commercial training service to be rendered. Supporting this statement are the figures in Table IV, page 56, which shows a total of 5271 skilled and 5477 unskilled workers. Of the former less than 500 have enrolled for self-improvement in job performance during the current year. This is about one out of ten.

With the exception of one or two industries no evidence is shown where the vocational training staff has made progress in assisting plants to establish or improve their plant training programs. In the case of the exceptions the organization is large enough to pursue the traditional types of training.

Table X, page 73, shows that in certain other cities of the United States training needs in the majority of these trades and occupations have been recognized and that an attempt has been made to meet them. Such Courses in the trades listed have met the standards of State and Federal Boards for Vocational Education and have received State and Federal subsidy on the salary of instructors. This would indicate successful results from the courses of instruction and the probable success of

organized training in these trades in the city of Jacksonville.

The data presented in Table III, page 55, has to do with training for whites only. Regardless of the fact that 40 percent of the working population shown in Table IV, page 56, is colored there is no vocational training on an organized basis for Negroes. There are many trades such as masonry, tailoring, hotel service, cooks, truck drivers, railroad repair service, oil service station helpers, garage helpers, etc., where Negroes perform service for which they must have received training by some means.*

It is reasonable to advance the thought that whether White or Negro, where the same jobs are done, the same skills required and the same understanding needed, that, if vocational training of one serves the interest of the general public, the same is true with the training of the other.

In the survey of automobile repair garages Table VI the author asked the questions: "Can a Negro rise above a predetermined working level in this field?" - - - The conclusion from the answers is that characteristics of the Negro and a trace of racial antipathy pre-determine his payroll status. There is apparently a mutual understanding on this matter and no evidence to show objection on the part of industry as a whole, or the individuals composing it, to training the Negro to these predetermined levels and to make of him the most efficient laborer in the jobs at which he can secure employment.*

*Personal Observation of the Author of this Study.

Possibly the greatest deterrent to a program of complete service is the failure to establish levels of training for all. A man may work in the machinist's trade as a lathe hand; he functions as a workman at one level in the trade. In Table VIII, page 60, various levels within the major trades or occupations common to Jacksonville are shown. Dr. Chas. R. Allen, Dr. Chas. A. Prosser and assistants ascertained these levels in a study of the occupations in Minneapolis, Minnesota, to determine the extent of training which might be offered with efficiency to handicapped persons.

A complete analysis of each of the many trades as shown from the above statement would not broaden the potential scope of the industrial training field, but would probably serve as the most reliable means of revealing the true scope of what Jacksonville is entitled to have.

The industrial worker's ability is determined by complete training in one or more blocks of the trade or at checking levels within the block.* Since most workers serve on this basis, it is logical, therefore, to assume that in order to reach the majority with the most immediate and efficient instruction these training levels must be known.

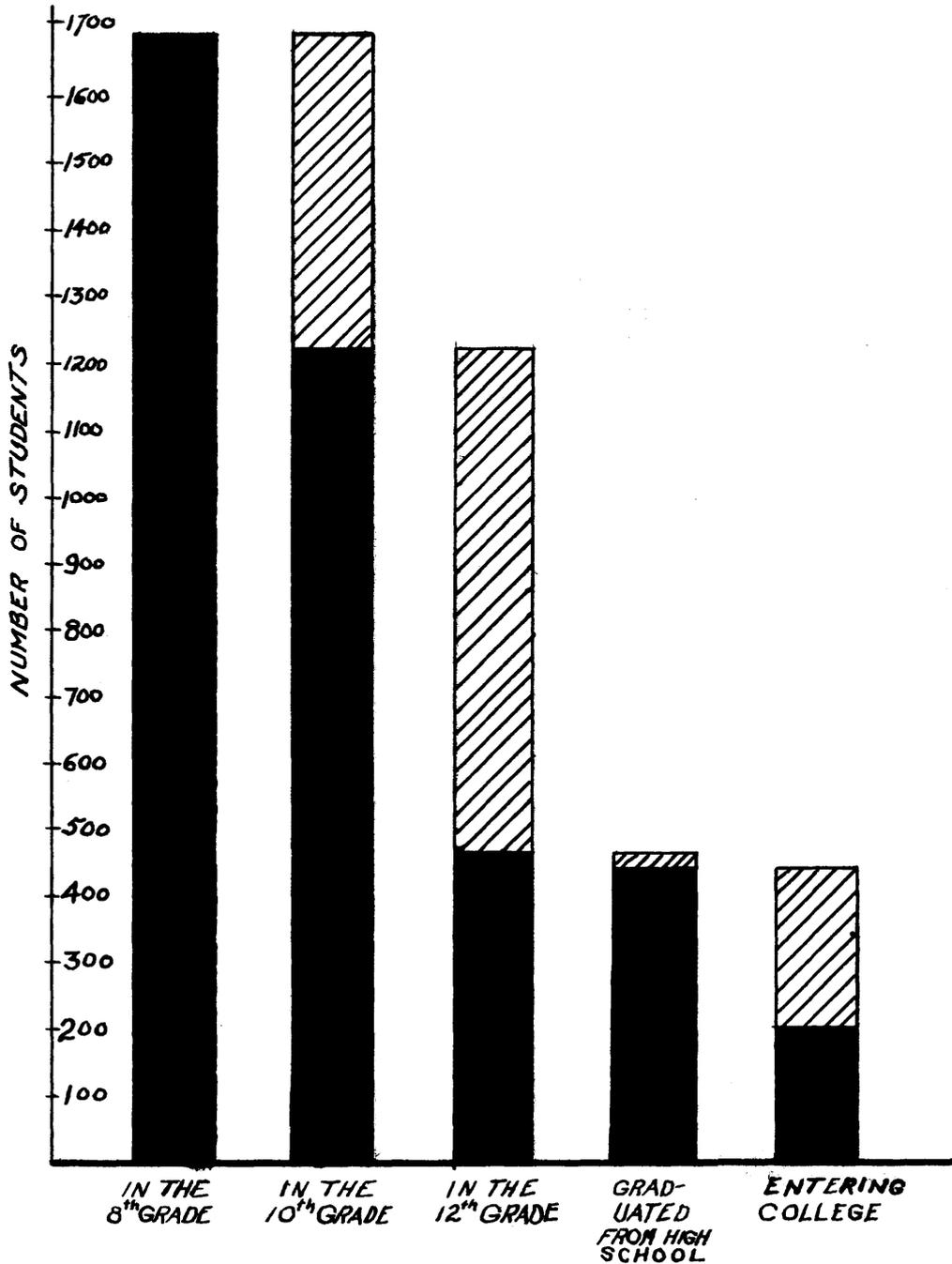
Table IX, page 71, shows the results of a questionnaire presented to the girls of the home making department of the part-time school. From a comparison drawn between this and the statements given by the instructor of the department, page 24, it is evident that the scope of training is not adequate in terms of the needs of the girls enrolled.

*Allen, Chas. R. - The Instructor, The Man and the Job. Pages 89 and 110. J.B.Lippincott Company, Philadelphia, 1920.

*Prosser, Chas. A., Bass, M.R. - Adult Education: The Evening Industrial School, pages 41-49 ff. Century Company, New York, 1930.

GRAPH III

SHOWING THE DECREASED NUMBER OF STUDENTS CONTINUING IN SCHOOL BETWEEN THE 8TH GRADE AND 1ST YEAR OF COLLEGE (THOSE WHO DROP ARE PROBABLE ENTRANTS INTO INDUSTRY)



 = OUT OF SCHOOL (PROBABLY EMPLOYED)
 = IN SCHOOL

The Graph No. III page 78 presents the probable entrants into the industrial and commercial occupations in the city of Jacksonville. While the enrollment for Duval county is shown rather than just the city of Jacksonville it is the observation of the author that only one small high school, and that with an enrollment of less than ten, exists in the county outside of the city. Therefore, for the sake of accuracy (to insure enrollment made between October 31, 1929 and June 30, 1930) the county records submitted at the end of the year are used.

These enrollments show that there are 1645 students in the 8th grade and 433 graduating from the 12th. This involves a drop-out of 1212 students or 80 per cent.

The State Supervisor of High Schools in his Biennial Report to the State Superintendent of Public Instruction gives the following figures and statements about graduates of the high schools of the State of Florida: "There was over 100 per cent increase in the number of pupils graduating from accredited high schools in Florida in the four-year period from 1922-23 to 1926-27. The per cent of graduates entering higher institutions or continuing their schooling as post-graduates and in nurses training schools in on the decline, being 49.3 per cent in 1922-23, 48.6 per cent in 1924-25 and 42.7 per cent in 1926-27. The actual number of high school graduates going to college is increasing, however. The actual number reported as entering occupations has fallen off slightly, and the decrease in per cent was from 44.5 in 1922-23 to 22.5 in 1926-27. Those reported as "unemployed" and

"unknown" together, increased from 6.2 per cent of the total high school graduates in 1922-23 to 35.3 per cent in 1926-27."

"Although the ratio of boys to girls graduating from high school is about two to three and more girls than boys from among the graduates go to college, the percentage of boys among the graduates going to college, is appreciably higher than is the case with the girls. Forty-seven and nine-tenths per cent of the total of boys graduating in 1927 went to higher institutions and only 37.3 per cent of the girls."

The information from these two sources indicates that with a conservative estimate 1000 young workers are inducted into industrial and commercial occupations in the city annually. Their training is composed principally of a knowledge of the traditional subject matter offered in the college preparatory courses of the high school. They must either secure jobs and acquire by experiment, pick-up, or poorly organized instruction from a busy foreman or workman, the skills and knowledge required for successful participation in their jobs. The training, however it may be given, costs the time, effort and money of someone or some group. Efficient training would likely call for some type of organized instruction not now offered by the vocational program of the city.

Conclusion, Part II.

The program of trade and industrial education in the city of Jacksonville does not satisfy the complete needs of its workers because the field of service is hardly more than opened. It fails to reach even

a majority of the trades and occupations at which workers are employed; it fails to care for training needs at various working levels within the trades and occupations now served and presents no evidence of successful effort to organize training on this basis for those not now served; it does not reach a large enough number of people to justify a very favorable comparison between its present service and its potentialities; and finally it fails to provide training of a preliminary nature for the sizeable group of young people who drop school and go to work after having reached an age and educational attainment which exempts them from compulsory school attendance in the State.

IV THE ADMINISTRATION OF THE PROGRAM OF VOCATIONAL EDUCATION IN
THE CITY OF JACKSONVILLE

In the efficiency survey of vocational education and in the book on Efficiency in Vocational Education emphasis is made of the importance of the administrative and supervisory function of the program.*

An industrial concern organized to produce at a profit is a close analogy to what a properly conducted vocational program should be. The business requires an executive head -- a superintendent --- a foreman -- trained workmen --- each trained for the jobs he does and with defined responsibilities to the job and the business.

In their treatise on the evening school, Prosser and Bass draw attention to the fact that the evening school, a prominent part of a vocational program, is a business.** The administrator is the executive head of the program, the supervisor corresponds to the superintendent and the instructor to the foreman.

The degree to which the persons who are responsible for these functions are trained and possess innate characteristics for the performance of them, and have a favorable attitude toward the exercise of these abilities, determines the success of these functions as applied to the business with which they work.

Any misconception of the responsibilities of the administration or supervision is likely to result in conflict, duplication of effort, failure in the performance of certain parts of the job, and low morale on the part of all concerned. A situation where these conditions are

*Efficiency in Vocational Education, Wright and Allen. John Wiley & Sons, New York, Page 118 ff. 1929.

**Adult Education: The Evening Industrial School - Prosser & Bass. The Century Co., New York. Page 27 ff. 1930.

present would indicate inefficiency and inability to cope with the problems incident to the development of a comprehensive program of vocational education.

Evaluating Factors and Evidence Obtained on the Administration.

The administrative personnel of the program with which this study has to do consists of the County Board of Public Instruction; the County Superintendent of Public Instruction; the Director of Vocational Education, and the Principal of the Part-time School.

Application of certain evaluating factors* was made to the situation as existing, in order to determine in the most definite and concise manner the efficiency of these parts of the vocational program.

Factor A.

An administrative organization will be efficient in proportion as every individual in the administrative personnel is qualified to discharge the responsibilities that are assigned to him.

Evidence Obtained.

The County Board of Public Instruction is composed of three men elected by public vote and the present members of the Board are engaged in the following pursuits, outside of their duties with the school system of the county.

1. President and general manager of a business college.
2. Owner and operator of a cleaning and dying plant.
3. A contractor in the field of glass and glazing.

The County Superintendent of Schools is a graduate of an engineering college. He has served as a high school principal in Jacksonville for many years and was elected to his present position in 1928. His administrative experience has been in the field of general

*Efficiency in Vocational Education, Wright and Allen. John Wiley & Sons, New York, Page 10. 1929.

education.*

The Director of Vocational Education has had nine years trade experience as a machinist and auto mechanic. He was an Instructor in Federal and state aid trade classes for seven years before coming to this position. His services included the teaching of part-time and day trade classes. This is his first position as supervisor of vocational education.**

His training includes seventy clock hours of training with the Federal Board for Vocational Education at Blue Ridge, North Carolina, and about one hundred twenty clock hours of training under the Florida State Board for Vocational Education.** He is now attending the summer session of the Colorado Agricultural College.***

The principal of the part-time school has had four years experience as a dressmaker and sales person and has been a teacher and principal in the part-time school of Jacksonville for seven years. She has attended the summer session at the Colorado Agricultural College, also a summer session at the Oswego State Normal School, New York, and has had seventy clock hours of Federal Board training in administration and supervision.**

Factor B.

An administrative organization will be efficient in proportion as there is unity of conception on the part of all administrative officials as to the social service to be rendered by the program.

*School Records.

**Florida State Board for Vocational Education Records.

***Colorado Agricultural College Records.

Evidence obtained.

The Director and Principal have both taken courses in supervision and administration. They have been identified with the state's program for seven years.*

They have attended state conferences where special attention was given to the objectives of part-time and evening school training.*

The Principal has developed the present program of part-time education to where it is, which means starting from practically zero and bringing the school to an enrollment which exceeds 500 for the year.

The Director developed and taught a trade class for three years and has served his trade for nine years. His latest service in the trade was in the summer of 1929.*

The Superintendent has had contact with industrial situations in an indirect manner during recent years.

There are no set of expressed goals for the program. The Director and Principal hold different opinions with reference to the development of the part-time school.*

Factor C.

An administrative organization will be efficient in proportion to the attitude of the organization personnel toward meeting actual community needs.

Evidence obtained.

The recommendations for the annual budget are made out by the Director and submitted to Superintendent and Board of Public Instruction for their approval.**

*School Records

**Statement of the Director.

No interference with expenditures within the budget allotted to vocational education has taken place during the last year.*

The program consists of the part-time school and an evening school. The budget for vocational education last year called for an expenditure of \$18,400. The budget for the high school of the city was \$443,000. The ratio of the expenditures within the vocational budget is about thirteen to fifteen in favor of part-time education.**

The appointment of the Director of Vocational Education did not come about in the form of a desire on the part of the Board of Education and the Superintendent.*** The State Supervisor spent much time and effort in promoting the idea within.

There has been no organized canvas of the needs of the city in the way of vocational training.****

The character of objectives are sound insofar as they reach. The Board of Education and the Superintendent of Schools refused expansion to include necessary courses for next year.*****

Factor D.

An administrative organization will be efficient in proportion as the responsibilities of each individual are clearly defined.

Evidence secured.

There is no stated definition of responsibilities. The activities of the personnel of the administration are based upon the assumption that "this is my job". On the other hand, these assumptions have not been of-

*Observation of the author of this study.

**School records .

***Records of State Supervisor.

****Statement of the Principal.

ficially approved.*

In the immediate past there has been some friction as a result of this condition.*

Factor E.

An administrative organization will be efficient in proportion as the morale is high on the part of the individuals comprising the administrative personnel.

Evidence secured.

There has never been a special meeting of the Superintendent, the Board of Education, the Director, and Principal for the purpose of discussing matters pertaining to vocational education. The Superintendent has never called a meeting for the express purpose of discussing policies or problems of Vocational Education.**

An incident regarding the re-election of the Director presented certain difficulties existing between the Director and the part-time Principal. No definite move was made to ascertain the source of the difficulties or to remedy them.*

*Observation of the author of this study.

**School records.

SUMMARY AND CONCLUSIONS ON THE ADMINISTRATION

Factor A.

The qualifications for those administering the program as shown in the evidence would seem to justify a very fair rating.

The director and principal received their training in administration and supervision on the conference plan. Since the amount of total working experience on the type of job for which they were receiving training, conducted on the conference basis, determines the amount of benefit any individual will derive, the training they have received would more nearly have met ideal conditions had it been given under adequate supervision on a real job of administration.

The knowledge of vocational education which the Board of Public Instruction and the County Superintendent possess is about what would be expected of laymen elected by popular vote for this kind of public office. As to training for the administration of a vocational program the evidence fails to show any.

Upon the evidence presented, a rating of six was given.

Factor B.

The experience that the personnel of the administration have would indicate a fair conception as to the social service expected of the program. The program in its present state does not indicate the desired breadth of conception which should be expected of the administration, but factors such as the time, sentiment in the community, industrial and financial conditions, offset to some extent any criticisms that might be made on this basis.

The lack of goals or outlook in the form of definite plans might be offered as a basis for the lack of spread in the program.

On the basis of the evidence presented, a rating of 5 was given.

Factor C.

The attitude of the higher administrative authorities would indicate a type of passiveness which is not desirable and not present where the rating under this factor is high.

The evidence shows a lack of conception as to the scope or potentialities of the program.

The budget shows a very great discrimination against the vocational program. What is secured for vocational education has to be secured by the application of pressure to the general education budget.

The evidence which shows the attitude toward the appointment of a Director would not indicate a real conception of the service the program could render. The last bit of evidence quoted, viz., that positive refusal of expansion has been made, would indicate still further lack of conception of the service that could be rendered. Prosser and Allen in their book, Have We Kept the Faith, call attention to the child on the doorstep.* From the evidence presented in this factor, the program of vocational education in Jacksonville is a fair case of the same.*

On the basis of the evidence given a rating of 2 was given.

Factor D.

The evidence is sufficient statement on this factor that it really presents an undesirable situation. The attitude and lack of action in de-

*Prosser and Allen, Have We Kept the Faith. Century Book Company, New York. Page 325 ff.

fining responsibilities by those in the higher administrative authority would justify an extremely low rating.

A rating of one was given on the evidence presented.

Factor E.

Like the above, evidence is adequate for conviction. This would be expected following the evidence, which shows no definition of responsibility or authority. Low morale is likely to follow a lack of understanding.

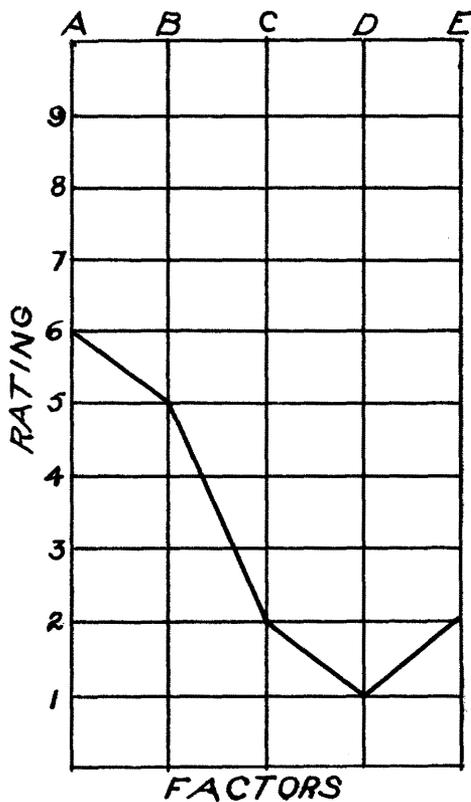
A rating of two was given on the evidence presented.

Regardless of how much training the administrative staff may have had, if that part of the staff in whom final authority rests is not awake and favorable to meeting community needs, if the conception of these needs is diminished because no study has been made, or for other reasons, or if the administrative job is not clearly defined, then there is hardly a just basis upon which to expect an adequate social return to the community from the program of vocational education.

As a complete summary picture of the degree to which the administrative set-up is adequate and functioning in terms of the job to be done as concluded from the evidence gathered on the factors used the following graph is presented.

GRAPH IV

SHOWING SUMMARY RATINGS ON FACTORS PERTAINING TO ADMINISTRATION
OF TRADE AND INDUSTRIAL EDUCATION
JACKSONVILLE, FLORIDA, 1930



V THE SUPERVISION OF THE PROGRAM OF VOCATIONAL EDUCATION IN THE
CITY OF JACKSONVILLE

Factor A.

Evaluating Factors and Evidence Obtained on the Supervision.

Supervision is efficient in proportion as the supervisory function is distributed with regard to maximum improvement needs.

Evidence Obtained.

Personal judgment is used as a basis of determining high and low points in supervision.*

The local Director states that supervision is only given when most needed, and that his efforts are given to supporting these needs and working out a remedy for them. Discussion with the Director on the high and low points of supervision brought out that he recognized these points in an unorganized way and that he thought records of these had little value in as small a program as they conducted in Jacksonville.

Evidence was secured in Factor C, Page 16 of this study on supervisory methods of the Principal of the Part-time School. These consist chiefly on conferences held when the need and opportunity for the same arise. They may be held on an individual or group basis.**

The Principal stated that supervision was given in the part-time school when and where needed.

Factor B.

Supervision is efficient in proportion as supervisory and administrative functions are not combined in one individual.

*Observation of the author of this study.

**Evidence cited.

Evidence Obtained

The administrative and supervisory functions are combined in one individual. This statement is also true in the case of all individuals exercising supervisory responsibilities. There are two people on the staff with supervisory authority, viz. the director and the part-time school principal.* The director stated that 60 per cent of his time was given to administration. The program is limited at the present time, but from personal observation of the author of this study and from evidence secured in making this study, the potentialities for development are high.**

Factor C.

Supervision is efficient in proportion as the individual has congenital characteristics necessary for efficient supervision.

Evidence Obtained

The director stated that a number of his trade extension teachers have come to him for help on problems which have arisen in class. The author of this study had occasion to observe the director on the job of supervising a teacher and also in the exercise of his duties as head supervisor over the principal of the part-time school. In the case of supervision of a teacher, there was no criticism to be offered. Tact, sympathy, frankness and all of those personal characteristics summed up in leadership ability were present and active. In supervising the part-time principal, there seem to have been factors which prohibited a full play of these characteristics.*

*Observation of the Author of this Study.

**Evidence cited, Part II this Study.

Quite satisfactory relations obtain as between the supervisors and people on the outside. There is no evidence to the contrary. From the best evaluation of the attitude and morale of the teachers the part-time principal has shown leadership qualities with her teachers.*

Factor D.

Supervision is efficient in proportion as the supervisory personnel has had specific training for the job.

Evidence Obtained

The director has served as a foreman in an industrial concern. He managed the athletic teams in connection with the day trade school at Montverde, Florida. He has had training in supervision with the Federal Board for Vocational Education and at the Colorado Agricultural College. The work at Blue Ridge, North Carolina, was given under the direction of Mr. J.M. Hall, Southern Regional Agent. The work at Colorado Agricultural College was on supervision and administration with Dr. Charles R. Allen, Education Consultant of the Federal Board for Vocational Education and member of the faculty of the summer session. In addition to these particular courses in administration and supervision, he took a course in the philosophy of vocational education with Dr. Charles A. Prosser, and another course in administration of the evening school program with Mr. M. R. Bass. The director has been present at all state conferences for vocational directors and teachers during the past four years.**

*Professional Evaluation of these Factors.

**Records of the Florida State Board for Vocational Education and Observation of the Author of this Study.

The principal of the part-time school was formerly principal of an elementary school. Because of her interest in part-time education, she was transferred from the principalship of the elementary school to the position of a teacher in the part-time school. She was later made principal of the part-time school and has served in that capacity for five years. She took special training in supervision and administration at the Federal Conference at Blue Ridge, North Carolina. She attended the 1929 summer session of Colorado Agricultural College taking such courses as the Survey Methods, Problems in Part-time Education, etc. She has been present at all of the state conference dealing with the problems of the part-time school.*

Factor E.

Supervision is efficient in proportion as the work of other agencies is efficiently utilized.

Evidence Obtained

The director has secured the cooperation of two organized trade groups - the electricians and the carpenters.**

The extent of their cooperation has been the recruiting and promotion of attendance. The Central Trades Council was willing to endorse the proposed Capper-Reed vocational bill.*** - ****

Individual agencies, such as railway companies, automobile concerns, etc. give their cooperation.***

*School Records.

**Statement of the Director.

***Statement of the Author of this Study.

****Senate Bill 3969, 71st United States Congress.

Factor F.

Supervision is efficient in proportion as the supervisory personnel is adequate in terms of the job to be done.

Evidence Obtained

There are continuation and evening schools conducted in the city. The enrollment is about 500 for each division.*

The Chamber of Commerce survey shows 10,748 workers in the city, classified as shown in Table IV, page 56, this study.

The telephone directory shows about 60 major occupations. Of the 60, the present program of evening school classes is reaching only 14.*

The director states that he confidently expects to see the program reach into several new fields next year.

No travel expense is allowed.

All the work done in supervision is within an approximate radius of three miles.*

Factor G.

Supervision is efficient in proportion as the supervisory personnel is not hampered by the administrative function.

Evidence Obtained

Little evidence could be secured upon this factor. The director's job carries practically all of the administration outside of the actual school. He works up in his responsibility to the Superintendent and the Board of Education, and down to the immediate faculty. The director

*School Records.

**Observation of the Author of this Study.

states that he gives about 60 per cent of his time to administration. There is no evidence where the Board of Education or the Superintendent of Schools has called a halt on anything planned for in the annual budget.* The Board of Education has acted within the province of its authority in refusing additional appropriation for vocational Education.*

Factor H.

Supervision is efficient in proportion as the supervision is carried on in cooperation with occupational groups.

Evidence Obtained

About the only evidence which could be obtained on this factor is that cited in Factor E, page 95 . The carpenter and electrical workers' unions cooperate only in the recruiting and promoting of attendance. Three business concerns have cooperated in working out content of courses and checked the attendance of their employees.**

Factor I.

Supervision is efficient in proportion as it is carried on in cooperation with the operating personnel.

Evidence Obtained

Members of the operating personnel have come to the director for assistance of a supervisory nature.***

Regular staff meetings are held in the part-time schools.****

*Observation by the Author of this Study.

**Statement of the Director and the Principal.

***Statement of the Director.

****Statement of the Part-time Principal.

Full time teachers in the part-time school have been regular in attendance upon state meetings.

Factor J.

Supervision is efficient in proportion as the organization provides opportunity for the professional improvement of the supervisors.

Evidence Obtained

During the last four years the principal of the part-time school has had one-half of her expenses reimbursed for attendance upon Federal conferences held in the South. Both director and principal have been released on pay to attend state conferences.

Other than the above, no evidence is present where provision is made for professional improvement on the job.*

Factor K.

Supervision is efficient in proportion as special supervisory methods and devices are effectively utilized.

Evidence Obtained

Of the thirteen recognized supervisory methods and devices, seven are identified and used to a varying extent.** The devices identified are conferences, individual suggestion, constructive criticism, general talks to groups, securing information desired by given individuals or groups, individual assistance, assistance in analyzed difficulties.***

*School Records and Statements of Director and Principal.

**Efficiency in Vocational Education, Wright and Allen. John Wiley & Sons, Page 223, New York, 1929.

***Observation of the Author of this Study.

SUMMARY AND CONCLUSIONS ON THE SUPERVISION

Factor A.

Evidence presented indicates that supervision has been taking place on the opportunist basis; and that, regardless of whether a definite plan has been made by which supervision is checked, the high and low supervisory points are reasonably well established in the mind of each supervisor.

A rating of eight was given on the basis of the evidence given.

Factor B.

The evidence shows that beyond question both the supervision and administration of the program is in the hands of the director and principal of the part-time school, the only exception being that part bearing upon finance.

On the basis of this evidence a rating of one was given.

Factor C.

The evidence shows that the personal characteristics of both supervisors function well except in the one case of difference between themselves. The director, who gives most of his supervisory effort to the evening school, has apparently been doing a good job there. The same is true with the principal, who devotes her efforts to part-time courses.

A rating of five was given on the basis of the evidence presented.

Factor D.

The evidence presented is composed of matter-of-fact statements bearing upon the training of both supervisors.

A rating of six was given on the evidence presented.

Factor E.

The evidence shows that not only have agencies been utilized in limited ways, but they have not been utilized to the best advantage.

A rating of one was given on the basis of evidence presented.

Factor F.

The supervision in the part-time school, according to the evidence, is adequate in terms of personnel. The fact that the director uses 60 per cent of his time in administrative work, leaving only 40 per cent for supervision, added to the fact that only 14 occupations out of 60 have been reached with the evening school program, would indicate the need of the help of at least one additional person.

On the basis of this evidence a rating of seven was given.

Factor G.

The evidence shows a comparatively small organization and further that the active administration is in the hands of those doing the supervision. It also shows no definition of authority or responsibility. Under such conditions the set-up is not desirable and would be expected to result in some possible misunderstanding which might lead to discord. Fortunately enough, in the present situation there is a small personnel; however, with no definition of authority or responsibility many dangers are present.

A rating of five was given on the basis of evidence presented.

Factor H.

The evidence shows a limited amount of supervision in cooperation with agencies. This is so small in terms of potential opportunities, that it necessarily takes a very low rating in terms of efficient organization.

A rating of two was given on the basis of evidence given.

Factor I.

The evidence under this factor shows that both the operating personnel of the evening school, and the operating personnel of the part-time school are cooperative by their attitudes toward being supervised. In fact, the call for assistance would indicate a satisfactory degree of cooperation as between the supervisors and the ones supervised.

On the basis of this evidence a rating of eight was given.

Factor J.

There is slight provision for professional improvement shown by the evidence secured.

A rating of two was given.

Factor K.

The evidence shows that there is a reasonable command of the devices commonly used by the supervisors. The devices not used could be of great value to each of the supervisors. Any amount of research

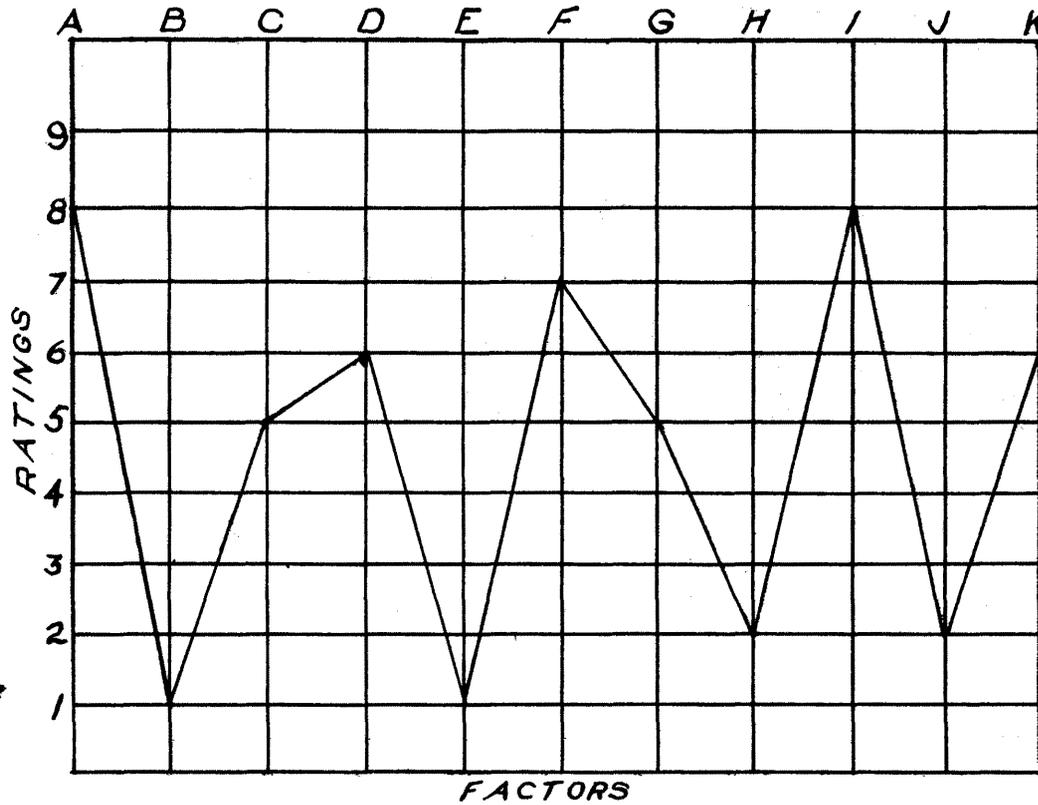
material is available which could be secured and placed with the correct interpretation before the evening school and part-time teachers. While the factors used seem to be in command of the supervisors, it is the observation of the author of this study that development and more purposeful attitude toward the use of these factors would not be out of place.

A rating of **six** was given on the basis of this evidence.

As a complete summary picture of the degree to which the supervisory set-up is adequate and functioning in terms of the job to be done as concluded from the evidence gathered on the factors used the following graph is presented.

GRAPH V

SHOWING SUMMARY RATINGS ON FACTORS PERTAINING TO SUPERVISION IN
VOCATIONAL TRADE AND INDUSTRIAL EDUCATION
JACKSONVILLE, FLORIDA, 1930



VI RECOMMENDED CHANGES AND MODIFICATIONS.

It was stated at the beginning of the report on this study that for the purpose of securing the most benefit to the city and the person making this study and who has supervision over the vocational trade and industrial training of the State of Florida, a fourth part of this study should deal with recommendations as to the changes or modifications advised for the program.

The evidence secured on the first three parts of this study afford a very satisfactory basis for suggested changes in the present program.

Throughout this thesis no mention has been made of what many would think were uncontrolled conditions. Sentiment for or against vocational training is offered as an illustration. Such factors are considered by some to be more or less beyond the control of those administering a vocational program. Factors of this nature, however, present mostly imaginary difficulties, for in many cities where vocational training is now being carried on, such factors have been overcome by a well-trained, active, and tactful administration plus real evidence in the way of results from organized training, promoted and conducted by those responsible.

There are some real difficulties which would appear, such as climatic conditions, nature of industries, the attitudes toward race problems, the financial condition and ability of the city, and employment and conditions now existing in the form of a national industrial slump.

The discussions in this part of the thesis will deal only slightly with the real difficulties. The imaginary ones will occur from time to time as the basis of point discussion.

The Part-time Continuation School

In the part-time continuation school section of the vocational program, as noted from the evidence, the school is not set up with a broad enough conception of what social service it is potentially capable of rendering. The Denver Opportunity School, as an illustration, approximates a school set up in a manner from which the maximum social returns would be expected. It should be possible and should be provided in the Jacksonville Part-time Continuation School that training of secondary school grade could be given to any juvenile worker or adult worker, who desires training which would enlarge his civic or vocational intelligence and help in his adjustment to his social surroundings, in his job or in a field of some avocation from which he could receive greater profit and pleasure from leisure time activity.

To aid in the prospect for rendering a service of the type mentioned, a call staff should be organized from the various occupations and related ones in which the attendants at the part-time school would likely be interested. This staff of instructors would render service upon special call. The purpose for having such a staff is obvious; however, such is hardly possible until the school has made the outside contacts necessary to win the support of the public.

It is suggested that a most important change in the situation in Jacksonville should involve much organized effort on the part of the school to win the public to its cause. In the Graph on Page 36 of this

The discussions in this part of the thesis will deal only slightly with the real difficulties. The imaginary ones will occur from time to time as the basis of point discussion.

Recommendations as to the Part-time Continuation School.

In the part-time continuation school section of the vocational program, as noted from the evidence, the school is not set up with a broad enough conception of what social service it is potentially capable of rendering. The Denver Opportunity School, as an illustration, approximates a school set up in a manner from which the maximum social returns would be expected. It should be possible and should be provided in the Jacksonville Part-time Continuation School that training of secondary school grade could be given to any juvenile worker or adult worker, who desires training which would enlarge his civic or vocational intelligence and help in his adjustment to his social surroundings, whether that adjustment be in his job or in a field of some avocation from which he could receive greater profit and pleasure from leisure time activity.

To aid in the prospect for rendering a service of the type mentioned, a call staff should be organized from the various occupations and related ones in which the attendants at the part-time school would likely be interested. This staff of instructors would render service upon special call. The purpose for having such a staff is obvious. However, such a procedure is hardly possible until the school has made the outside contacts necessary to win the support of the public.

It is suggested that a most important change in the situation in Jacksonville should involve much organized effort on the part of the school to win the public to its cause. In the Graph on Page 36 of this

study, Factor G, dealing with the establishing of cooperative relations between the school and the community, shows that little has been done along this line. Various sponsoring bodies and committees should be provided, but not without determined organization and function. No part-time school will be able to render the maximum service to the community until this cooperation is established and set to work. A broadening of objectives; a staff of instructors ready to render voluntary, but not free service, upon call; a close and thorough community organization all would lay a real foundation for the development of the social, home and occupational life of the workers who are potentially continuation school students.

The school cannot effect any visible support for a great length of time without some re-organization within the school itself. The evidence presented tends to show a fairly well qualified group of instructors. However, it is suggested that regardless of how well an instructor may be informed on what the commercial and occupational requirements were last month, or even yesterday, that those same requirements may not be present today. This fact emphasizes the necessity for keeping up-to-date on the changes in every line of activity in which instruction is attempted. The only way that an instructor can keep up to the minute is by time devoted to establishing contacts with the community; and through these contacts to study and maintain herself at the level which the community's business requires of her trainees. Occupational improvement must be kept up in any going program in order

to maintain the respect and confidence of the community.

Likewise, the responsibility for teaching the subject matter of the part-time school is such that continuous improvement of teaching ability on the job is necessary. It is suggested that in the Jacksonville system this improvement be made by the most efficient supervisory activity possible and with the instructors under the direct training of the supervisor in charge of the school.

In addition to maintaining community relationships by means of a good teaching job and a well-qualified instructor, it would seem wise that in a city the size of Jacksonville, there should be some person whose business it is to work between the school and the job at which the student works. The far-reaching effects of a person serving as a go-between, a coordinator, would completely justify the highest type of individual which can be secured for that purpose. It would not only keep the public sentiment warm in favor of the part-time school, but would establish a just basis for this feeling.

A committee on the campus of the Colorado Agricultural College, of which the author of this study was a member, worked out a term paper on the personnel problems of a trade coordinator. In this paper, functions of the co-ordinator were stated. Without elaboration, they are quoted in this paper to strengthen the recommendation that a co-ordinator should be attached to the personnel of the part-time school.

"A. Functions regarding the work with employers.

1. Securing employment information as to employment opportunities.
2. Selling the employer to training.

3. Securing cooperative employment agreements.
4. Securing information from employers as to the efficiency and progress of the learner.
5. Securing information from the employers as to new training needs and success of schemes already existing.
6. Promotion of the learner in the shop.
7. In case of a change of personnel in the shop or place of work, to acquaint the new members of the force with previously made arrangements and purposes.

B. With regard to the learner.

1. The selection for employment and instruction.
2. Employment instruction.
3. Visiting the learner on the job.
4. Visiting the learner in school.
5. Job adjustment.
6. Transfers.
7. Termination of service.
8. Contacting general friends and advisors for the student.

C. With regard to the home.

1. Parent visitations.
2. Getting the parents' approval on the type of work the student is engaged in.
3. Interviewing the parents in case of trouble.
4. Lack of adjustment on the job.
5. Interviewing the parents to inform of progress on the job,

transfer, or termination of work and to promote general friendly relationships between school, job and the home.

D. With regard to the school itself.

1. To interpret information to the administrative and supervisory staffs.
2. To interpret and assist the instructors in making the instruction meet the needs of the trainee where adjustment and training are necessary.
3. With outside organizations, such as trade unions and civic organizations, to establish and maintain working relationships with them by helping to set up and to keep working such committees as educational committees, apprenticeship committees, councils, etc.
4. For the purpose of publicity, to establish and communicate interesting facts regarding the relationships of the school, the pupil and the employer to newspapers of the city, and to promote stronger relationships through the newspapers as an advertising medium.

E. With regard to recreational activities.

1. To contact and assist the director of play ground activities, Y.M.C.A., baseball managers, athletic coaches, and Boy Scouts to arrange recreational activities which return to the students of the part-time school the greatest social benefit from their recreational life.

F. With regard to welfare organizations.

1. To contact and assist directors of this type of organization so that the maximum service may be rendered to the student where the student's economic status is such that actual assistance of this type might be needed to safeguard the student's welfare.

Were he to fulfill the above-stated functions, the selection of a coordinator in the city of Jacksonville, would be equal in value to almost any addition or change that could be made to the personnel of the part-time school.

There should be attached to the school an advisory committee of laymen whose interest and community relationships would fit them to advise with the administration on the problems of the part-time school dealing with:

1. Cooperative relationships
2. Service rendered by the school
3. Objectives of the school
4. Expansion of the school facilities.

Both the present building and equipment, as noted in the evidence in Part II, Page 19, are inadequate. The building is quite certainly large enough, but ill adapted because of its construction, to the most satisfactory use of the part-time school. Granting that Jacksonville, as a city, wishes to uphold the feeling of democracy in its educational work, it would seem fitting to suggest that some designated property be made the home of the part-time continuation school. If the present property, the Duval high school building, should be designated, it should be re-adapted by design and construction to the most efficient

use of the part-time school.

The evidence shows that the equipment is inadequate when compared with that used on jobs for which training is being attempted. There must be provided equipment which compares favorably with that which the community uses. As an illustration, in the department of commercial education, the equipment, which consists only of about 35 typewriters, holds a very low rank when compared with the commercial equipment used by business concerns in the city.* No suggestion is made as to the amount of equipment that should be purchased. A recommendation of this type to be carried out in a manner to serve the purpose of the same, would be based upon a closer survey of the training needs of the people attending the part-time school and their opportunities for improvement in commercial pursuits subsequent to their training. Equipment which compares favorably with that used by industry and commerce of the city could hardly be considered less than a requirement.

In conclusion, as recommendations for the part-time school, it is recommended that either the factors for evaluating a part-time continuation school,** or a similar set of factors established out of the experience of the administrative, supervisor, and operating personnels be placed first in the minds of these individuals as definite standards for efficiency and service. Not only should these factors be kept before the personnel, but devices both educational and operative should be used which will make a realization of them possible.

Recommendations as to the Evening School.

In the evening school, the outstanding need of the city of Jacksonville is an occupational study like the one made of the city of Fond du Lac, Wisconsin, and submitted to the Colorado Agricultural College by Otto J. Dorr

*Part II, Page 14.

**Efficiency in Vocational Education, Wright and Allen, Page 12, John Wiley and Sons, 1929.

as a thesis for the Master's degree. This type of study, properly made and utilized, would be the basis of future development of the program.

No training scheme can be established and efficiently conducted which does not return to the city the maximum results in terms of occupational improvement from the evening school. Therefore, it is easy to deduce the statement that without an occupational study, an efficient program of vocational education cannot be operated.

The same might be said regarding an analysis of the training content and training needs of the industrial occupations of the city. In order to avoid inefficient practices in instruction, to safeguard the attendance and the interest of those who would enroll for occupational improvement, it is necessary to give functioning information which cannot become known unless an analysis or some similar device is employed for its determination.

In the discussion for the needs of the part-time school attention was called to the organization of supporting committees in the community. In the case of the evening school, it is suggested that a complete organization of committees needs to be formed with the following general functions:

1. Advice and counsel to the school administration on the problems of the evening school.
2. To promote and recruit attendance.
3. To assist in working out content of courses.
4. To assist in the selection of students for training to different occupational levels.

5. To assist in securing equipment for class use.*

It is suggested that the cooperation of these supporting committees would give the vocational school a reliable set of checks and balances plus first-hand advice on the direction the program should take and the extent of its development.

Graph V, page 78, of this study shows that, contrary to information available on the annual number of younger workers entering industry, approximately 1000 young people find their ways into jobs of some kind every year. The present program does not offer any training for that part of the group who enter other than juvenile jobs; in fact, the only training now given for the young worker is through the part-time continuation school where an attempt is made to relate the work of the school to that of the pupil's job. A few who have attained the rank of apprentice enter the evening school.

In El Paso, Texas, what is known as a part-time cooperative plan in the automotive trades is in progress. These young workers alternate in pairs between the school and the garages of the city.

Cooperative relationships like those in El Paso are not impossible between the schools and the industrial and commercial interests of the city of Jacksonville. The 1000 young people, or any reasonable part of them who enter work, could be placed in training on a cooperative basis with complete justification because it would

*Similar Use of these Committees is reported in Baltimore Bulletin of Education, Voc. IX, No. 3, Page 58 ff. Bureau of Research, Baltimore, Maryland, 1930.

serve both the interest of industry and the young worker, the latter by meting out justice in an educational sense to the majority who are shown not to enter college and the professions.

Such a plan would aid the employer in a better selection of workers; would produce with less effort workers equipped with stronger and more desirable habits and attitudes, better developed skills and technical knowledge in the field of their daily work.

The day unit trade class, and the technical high school where training on an all day basis is given, independent of cooperation from industry, and without consideration for industry's consuming power for the product of the training agency, is not to be understood as a substitute for the plan thus stated.

Only two schemes are advised: First, the part-time cooperative school for groups like the building, metal and service trades; and, second, plant training programs for the specialized industries that require equipment, production jobs, etc., which cannot be supplied for training in the school.

In the case of part-time cooperative training, proper coordination of the work in the school and in industry is an indispensable feature of the plan. As in the work of the continuation school the functions of the coordinator are many and when fulfilled, may be depended upon to support any efforts that may be made toward successful trade or commercial training. These functions are presented in an earlier part of this study on page 107 ff.

Recommendations as to Administration and Supervision.

There is abundant evidence that in the selection and training of teachers subjective methods have been introduced to the extreme. As a result of this observation, it is suggested that immediate and definite steps be provided for determining more accurately the probability of teachers selected.* Following their selection there should also be an equally definite provision for their training while in service.

In the evidence, the director of vocational education, who has the supervision of the evening trade classes, states that about 60 percent of his time is given to administration. His purpose is not doubted in establishing such a ratio between the administrative and supervisory duties. However, it occurs from the evidence presented, that if it were possible to reverse the ratio, greater efficiency in the program would result. Supervision by the commonly called "inspect, worry and do nothing" method has no place in Jacksonville. An improvement of the present supervisory function* should take place along the line of a better use of supervisory devices and the establishment of some active system of knowing what the levels of achievement under supervision are with reference to each individual teacher. A supervisory checking sheet built on the same basis as the efficiency factors for measuring specific courses used in this study, would be very much in place.

In the improvement of teachers on the job, the supervisory information which would be available under a plan of this type would form

*Adult Education, The Evening Industrial School, Prosser and Bass, Page 154 ff. The Century Company, 1930.

the basis of much constructive training. The teacher-training work done should be done by the person who supervises the work and should deal with such types of training as the deficiencies of the instructor revealed.

It occurs from the evidence in the field of administration that an equitable share of the administration's efforts has not been devoted to the vocational school. This may be due to a hesitancy because of a lack of acquaintance with the vocational program which is comparatively new to them.* Nothing would serve the interests of vocational education more than the formation of an aggressive administrative policy regarding the study of vocational education and its problems with the expectation of giving to the city what is needed as training for its workers. The outcome of a study of this type should be a complete and clear set of objectives for the whole vocational training scheme and an agreement as to their possible attainment.

The evidence failed to show any definition of responsibility or authority by the higher administration for those of lower administrative rank. The effect of such a policy is so far-reaching in the morale, the actual performance of the individuals and as a whole the general efficiency of the program, that it is strongly recommended that the Board of Education, the County Superintendent of Public Instruction, the Director of Vocational Education, with such outside assistance as is advisable, give sufficient time to the study of vocational education

*Elected to Office 1928.

and its organization that a complete definition of responsibility for the administrative, supervisory and operative personnel can be made. It is further suggested that a system of administrative follow-up be established for the purpose of securing reliable information for those at the head of the school organization. Without such follow-up procedure, it cannot be determined to what extent plans made have been carried out and what the success of these plans have been and what changes need to be brought about.

GENERAL CONCLUSIONS

Many approaches have been made to the determination of what city vocational trade and industrial programs should be, where their present deficiencies are, and suggestive means of effecting remedial measures. These approaches have of necessity varied in nature from the type in which other educational programs are reviewed. An actual and comprehensive survey of the city's working population - their employment, and the industries in which they work have been made, and training established according to the needs.

This thesis is of the latter type in that it presents evidence gathered from several reliable sources and interprets this evidence in terms of administrative, supervisory, training and complementary needs.

The thesis and study finds its greatest justification and use in the following:

1. It contains evidence gathered from reliable sources.
2. The interpretation is based upon accepted thought and procedure in the field of trade and industrial education.
3. The evidence gathered and presented relates to the major considerations proposed in the thesis.
4. The evidence and the method of recording and weighing it renders it possible to get the facts regarding the situation with which it deals.
5. Conclusions and ratings offer to the administration of the city educational system definite information and suggestive ways of planning a comprehensive program and measuring its progress.
6. In the thesis is contained the marked deficiencies and in such form that supervisory and administrative effort can be directed to necessary modifications and changes.

7. The rating charts may become a program progress chart for those in charge of administration and supervision.
8. It offers concrete suggestions for necessary content of teacher-training courses.

The above statements of justification and use not only apply to the city program with which the thesis deals, but indicate normal expectation from similar studies of other programs.

The author believes the thesis plan may be used in surveying other city programs of trade and industrial education.

BIBLIOGRAPHY

1. Wright, J.C. and Allen, C. R., Efficiency in Vocational Education, Century Company, New York City, 1929.
2. Prosser, C. A. and Bass, M. R., Adult Education: The Evening Industrial School. Century Company, New York City, 1930.
3. Florida Times Union, published at Jacksonville, Florida.
4. Mimeographed Bulletin 1424, Colorado Agricultural College, Fort Collins, Colorado.
5. Federal Census, 1930.
6. Allen, Chas. R., The Instructor, The Man and the Job, Pages 89 and 110, J.B.Lippincott Company, Philadelphia, 1920.
7. Prosser and Allen, Have We Kept the Faith. Century Book Company, New York. Page 325 ff.
8. Senate Bill 3969, 71st United States Congress.
9. Baltimore Bulletin of Education, Vol. IX, No. 3, Page 58 ff. Bureau of Research, Baltimore, Maryland, 1930.

