

T H E S I S

AN OCCUPATIONAL STUDY

Gathering, Compiling and Interpreting
Occupational Data in the City of
Fond du Lac, Wisconsin

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STATE AGRICULT'L COLLEGE
FORT COLLINS, COLO.

Submitted by

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In partial fulfilment of the requirements

for the Degree of Master of Science

Colorado Agricultural College

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COLORADO AGRICULTURAL COLLEGE

GRADUATE WORK

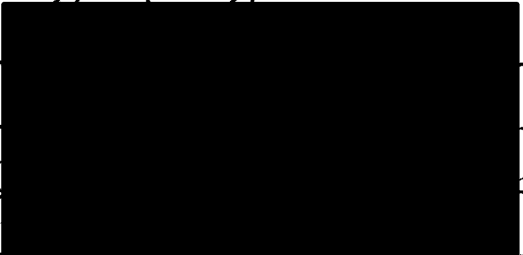
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I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPERVISION BY Otto J. Door ENTITLED AN OCCUPATIONAL SURVEY, BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE DEGREE OF Master of Science in Vocational Education, Majoring in Trade and Industrial Education.


In Charge of Thesis


Head of Department

Recommendation concurred in



Approved by



Committee on
Advanced Degrees

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FOREWORD

Mr. Otto J. Dorr, Director of the Vocational School at Fond du Lac, Wisconsin, recently submitted to me the text of his thesis, "An Occupational Study." Mr. Dorr gathered, compiled, and interpreted the occupational data contained in his thesis, in the city of Fond du Lac. For many years, Mr. Dorr has been interested in this subject, and I frequently commended the splendid manner in which he interpreted the occupational data in his city, in terms of usefulness for the Fond du Lac Vocational School.

Mr. Dorr has acquired his education through a continuation of work and schooling similar to that which the part-time and evening schools offer the workers. As a journeyman carpenter, he earned his living while attending various schools. He finished high school in 1912, and spent two years at the Oshkosh State Teachers College. Then he engaged in teaching, continuing his own education on a part-time basis, through courses with the Extension Division of the University, and summer school work at The Stout Institute. He taught evening school classes at Appleton three years, and during one summer vacation he worked for the State Board of Vocational Education, as assistant in its Rehabilitation Division. During his long experience as Director in vocational schools in Wisconsin, first in Antigo and now at Fond du Lac, he has kept up his educational contacts. He received his degree of Bachelor

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of Science in 1923. During the past two summers he has been taking summer school work at the Colorado State Agricultural College at Fort Collins, Colorado.

Mr. Dorr's long years of service in the Wisconsin vocational school movement have peculiarly fitted him to compile the results of his occupational studies. The part-time school for workers, designated in Wisconsin as the vocational schools, can succeed only when the local director, with his staff of assistants, clearly understands the industrial problems with which his part-time students are concerned. It leads to a closer cooperation and understanding between industry and the school.

Mr. Dorr has received the whole-hearted support and cooperation of the industries in the city of Fond du Lac, and he has contributed materially to a better understanding of the vocational school movement in this locality, as well as throughout the State of Wisconsin. The information gathered by Mr. Dorr is of great interest to all schools endeavoring to work in the field of part-time education for workers. In reviewing the manuscript, I suggested that it should be placed in permanent form and made available for general use among his colleagues in the part-time school movement.

GEO. P. HAMBRECHT

State Director of Vocational
Education, Madison, Wis.

PREFACE

Fond du Lac is a city of nearly 30,000 population having a junior high school of about 1100 students and a senior high school of nearly 1000 students. Its part-time school has an average enrollment of 375 students in the day school and about 1600 in the evening school. With the hope of rendering greater service to the boys and girls of the part-time school, it was felt that a partial study of industry should be made in order to get first hand information regarding some of the prerequisites required by the major industries in the city in the employment of its juvenile workers. Up to the time this study of industry was made, the school had no material it could turn to, to assist its instructors in teaching the requirements of industry in Fond du Lac. It was felt that the information gathered would be of great assistance in checking the school curriculum as to content, methods, up-to-date and usable related and trade information. It was also felt that a closer relationship would be created with the men in industry. The school would profit by this closer understanding of industry's problems and industry would profit by a closer understanding of the school problems.

Recognition is hereby given to the entire staff of the Fond du Lac Vocational School for their untiring efforts in completing the problem started. Without their combined efforts, the project would have been a failure.

IV.

Special acknowledgment is given to Miss M. Elizabeth Geve, coordinator, who spent many extra hours in the interest of the project. The writer also wishes to acknowledge the able assistance given him by Dr. A. H. Edgerton, University of Wisconsin, Mr. C. A. Bowman, Stout Institute, and staff members of the State Board of Vocational Education, Madison, Wisconsin.

This thesis is written for that large group of instructors and administrators who are trying, in their respective positions, to place before their students specific information regarding requirements for entrance into various occupations and trades. It is the hope of the writer that the information contained herein will be of some assistance to the above groups in determining the types of information that can be gathered, the methods used in gathering, and the method used in compiling and interpreting the information after it is gathered.

The actual gathering of this material was started in January 1927 and completed in May 1927.

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CHAPTER I
INTRODUCTION

THE PROBLEM:

To a very large degree, our school is the receiver of the put-outs as well as the out-put of the full-time school. These young people see no immediate value of what is being taught them in the full time school, so they either quit of their own free will or become problem cases and then circumstances arise that necessitate changing schools. Many of our students leave the full-time school because of economic reasons.

As a receiver of this variety of scholastic attainment and mental attitude group, we faced a problem of properly adjusting our work to the need of the students, especially in determining the distribution of time to be devoted to certain groups and subject material to be presented. We realized that the content and method used in the other schools were not functioning with this group. We also realized that the group had gone to work and their mode of living, ideas of citizenship, and responsibilities had changed with their changing environment. It was the realization of these facts that made it necessary for us to gather, compile, and interpret facts regarding the occupations and trades in which these young people now were employed or preparing to enter.

Fond du Lac is a city of approximately 30,000

population, having nearly 1000 in its senior high school, 1100 in its junior high school, 9 grade school buildings, and 3 parochial schools, one of which offers high school work. It also has a part-time school whose total enrollment for any year reaches over 500, with an average weekly enrollment of 375 students.

Fond du Lac has no one industry that employs a large number of children under 18 years of age. Its industries are of a number of different types, with the woodworking industry in the lead and the metal industry a close second. The remaining industries are of the smaller type, employing anywhere from one to a dozen of our students at any one time. Adjacent to us is North Fond du Lac in which two railroad shops are located. Some of our students after becoming 18 years of age, enter these shops. Outside of a few apprentices, railroad companies do not employ any one under 18 years.

All boys and girls between the ages of 14 and 16 years must attend school full time unless they are gainfully employed at home or elsewhere, in which case they must attend some school at least half time. Not attending any other school, they must then attend the Vocational School half time in the day time. If they are between the ages of 16 and 18 years and not attending some public, private, or parochial school in the day time, they must attend the Vocational School at least 8 hours a week. The

above explanation of Wisconsin's Educational Laws* means that every boy or girl must be in school, in the day time, either full-time or on a part-time basis until the eighteenth birthday is reached. High school graduates, as well as those physically and mentally handicapped, are excused from the above requirements.

In the full-time school, the usual manual training courses are given in the customary manner. An honest effort is being made in the junior high school to give some exploratory courses, but the effectiveness of this work is hampered because of lack of objectives and equipment. In the part-time school a boy has a choice of eight different courses, a choice of seven trade and industry courses and a full or part-time commercial course. Girls have a choice of the commercial or home making courses. The work in this school is primarily of the trade preparatory nature although there are over forty apprentices receiving trade extension work in the day time.

As was stated in the explanation of the educational laws, the students in the part-time school are all supposed to be employed at home or elsewhere. This being the case, it is essential that the school, somewhere in its curriculum, deal with the subject of occupational information. The usual source of information of this type

*Wisconsin Laws relating to Vocational Education, Bulletin No. 14, pages 18-19. State Board of Vocational Education, Madison, Wisconsin.

such as census reports, surveys made by private institutions, graduate students, departments of educational institutions, service clubs, Associations of Commerce, and the writings of individual scholars were not specific enough for our use. To be sure, this information was of great help, but in order to be of greater service to these employed boys and girls, a study of actual conditions in our city seemed necessary. Students in the part-time school were entering Fond du Lac's industries so it was felt that a more intimate knowledge of some of Fond du Lac's requirements should be known.

PURPOSE:

The main objective of this thesis is that of explaining, somewhat in detail, just how a study of occupations was made in Fond du Lac, Wisconsin. In this paper is presented: A pre-view of the problem to be faced, the procedure followed in arriving at just what information was to be secured, and the development and use of charts in the explanation of the data collected.

In submitting this work as a thesis, it is the opinion of the writer that much good can be derived from it by other administrators, principals, and teachers of vocational subjects who are charged with the responsibility of laying occupational information before the boy and girl who are employed, and those who intend to enter industry shortly. This study would be a bird's-eye view of the job

requirements and pay roll classifications of industry in a particular locality. It would furnish a wealth of immediate and reliable information for a course in occupations, as well as serving as a check on what should or should not be offered in our school.

METHOD OF PROCEDURE:

It was thought advisable to use a questionnaire to gather information relative to pay roll classifications and job requirements of this city. After the questionnaire had been devised, the writer or his assistant, Miss M. Elizabeth Geve, secured a personal interview with the head man of each concern which they wanted to study, and explained in detail the necessity of the school getting this information. They then asked permission to send one of the instructors of the school to their place of business to gather, first hand, the required information asked for on the questionnaire. None of this work was done over the telephone or by correspondence.

THE EXECUTIVE'S PROBLEM:

The financial problem connected with this study was done as economically as possible. The writer made one trip to Madison and Stout Institute and interviewed Dr. A. H. Edgerton and Mr. C. A. Bowman, respectively, regarding the form and style of questionnaire to be used. This was an extra expense incurred in the study. The other expenses could be listed under such items as paper, stencils,

clerical help, faculty time, and industry time. The majority of these are the usual expenses incurred in running the school, and no additional salaries were paid because of this work. The largest item of expense, if one worked it out, would be instructors', employers', and employees' time. Whatever the amount, it was felt the money was well spent. The institution sold itself to industry, and the faculty gained a much clearer understanding of industry through these contacts.

Concerning additional administration problems involved, it might be said that one will have to adjust the entire school to the best interests of the study. Teachers meetings were called at different times of the day to discuss problems that came up during an interview. Instructors had to be released at the time set by the employers. There was a shifting of classes within the school to meet these demands but the regular routine of the school was never entirely upset because of these shiftings. The writer himself was out of the building more than usual, and the clerk was kept busy writing up the information secured through these interviews.

CHAPTER II.

MATERIALS AND METHODS USED IN THE INVESTIGATION

DEVELOPMENT OF THE FORM OF QUESTIONNAIRE USED:

A great deal of time was spent on the form of questionnaire used. Several forms were developed and then discarded for various reasons. The one finally agreed upon was the result of a series of conferences of the school faculty, led by the writer. There were many questions and types of information that we should like to have obtained, but because of the method planned in gathering the material, the faculty's limitations as gatherers of facts, and the cost and time elements involved, it was finally decided that it would be better to obtain a few facts from the whole city than many facts from a few industries. In arriving at the separate items to be used in the questionnaire, some use was made of other surveys and studies,* and information secured from conferences with the City Superintendent of Schools and local industrial leaders, and also with members of the State Department of Vocational Education. The style or mechanics of the questionnaire was approved by Dr. A. H. Edgerton and Mr. C. A. Bowman as being simple, detailed, and very usable, and, in their opinion, the individual gathering the data would receive in a logical order the

*Minneapolis Survey for Vocational Education, Jan. 1916. National Society for the Promotion of Industrial Education Bulletin No. 21. Vocational Guidance and Counseling by Dr. A. H. Edgerton, 1926. The McMillan Co., New York.

answers to various questions asked in as short a period of time as possible.

This particular questionnaire was gotten up for the convenience of the staff in gathering the desired occupational information from industry. It was also intended for the employer as he had to have a clear idea of just what facts were wanted and why they were wanted.

PROCEDURES USED IN FILLING OUT QUESTIONNAIRE:

The method of actually filling out the questionnaire was an important phase to consider in this study, and it was finally decided that the information wanted could be gathered quicker and more accurately if the personal contact method were used. It was decided that either the writer or his coordinator should make the first contact, and during this initial interview should arrange a second interview with the particular firm in which the actual information should be gathered.

This arrangement was made because of the fact that a class room instructor, who might be very well versed in his particular field, might not be as well versed as the administration in the operation of the whole scheme of Vocational Training as carried out in this city. This is a natural situation because of the nature of the instructor's job. He is paid to teach certain subjects and this keeps him busy all the time, while the administrator's job is that of fostering and promoting Vocational Training. The

type of work carried on in the school is the direct result of his planning. Then, too, the administrator is in daily contact with industry and is supposed to have the confidence of the employers.

The greatest difficulty encountered in this first interview was that of convincing the employer that the information asked for would be used only in school work, and would not be broadcast about the city nor used as a means of discouraging pupils from entering a particular firm. A great many employers were enthusiastic about this study and commented very favorably on the project. There was not a single employer who absolutely refused to allow the gathering of this information after a discussion of the plan of procedure, when the reasons for the study were made clear.

As a result of the first interview, a specified time was agreed upon for the actual gathering of the information and also from whom it was to be secured. The individual who gathered this information was selected by the writer from his staff, having in mind the type of firm being studied, the qualifications and experience of the staff member, and also the regular duties of the staff member.

The greatest difficulty encountered in this interview was the time element. It seemed as though the time set many times interfered with rush orders going through the plant, and the individual from whom the information was being obtained was called upon to answer shop

questions during the interview. Then again, these representatives were not always able to personally answer the questions asked, and time was lost locating the individuals who were able to answer the questions. In some instances it was impossible to secure answers to some questions because of a hesitancy on the part of the employer to give out the particular information. In such cases the compiler did not press the employer. As a general rule, everybody did his best to put the compiler in touch with the individuals who could furnish the information sought. Several employers asked for a copy of the information after it had been compiled. All these interviews and conferences with the employers were made in the several plants. None of the work was done by correspondence or by telephone.

Form No. I
Questionnaire

Kind of Business	Name of Concern	Street Address	Taken by	Reported by	Payroll Classification	Managerial	Skilled	Semi-skilled	Common Labor	Clerical
					1					
					2					
					3					
					4					
					5					
					6					
					7					
					8					
					9					
					10					
					11					
					12					
					13					
					14					

Possibility of School Supplementing Training Given in Industry

EXPLANATION OF QUESTIONNAIRE:

Form I represents the questionnaire used in the gathering of occupational data. For ease in explanation, this form has been divided into three sections.

FIRST SECTION: (General Information)

This information is more or less general in character but is essential in that it definitely catalogs the industry as to its NAME, LOCATION, and NATURE OF BUSINESS. If for any reason a recheck of certain parts of the questionnaire was wanted, it would be possible to arrange it, because it would be known who gathered the information from this particular industry, as well as who had given out the information.

SECOND SECTION: (Pay Roll Classification)

Under this general heading the workers are divided into five different pay roll classifications, i.e., MANAGERIAL, SKILLED, SEMI-SKILLED, COMMON LABOR, and CLERICAL HELP.

Under Managerial, any worker who was held responsible for the operation of work performed by other workmen was considered. The essential element considered under this classification was: That the individual was responsible for guiding, directing, planning or routing the activities of other individuals, with a responsibility, to a certain degree at least, for the results secured by such individuals.

Under the Skilled classification were listed those individuals who would be considered "all around" Journeymen; those who had acquired a working knowledge of all the fundamentals of their trade, and were able to apply these fundamentals under the varying conditions of different shops and different localities.

Under the Semi-skilled classification were listed those individuals who would be considered under the Department of Labor's "Description of Occupations" as a "Hand" or an "Operator" or an "Assembler"; those individuals who have acquired a certain amount of skill relative to the workings of a machine, assembling sections of machines, or bench work. They are skilled in specific jobs or operations only.

Under Common Labor were listed those individuals who were working at jobs that did not require any previous instruction or training. Such work could be learned almost immediately upon beginning work, with possibly a few routine directions, but no training or skill was needed to begin the work.

Under the Clerical classification were listed all those individuals who were able to perform the duties usually performed in an office, such as typewriting, book-keeping, listing, billing, filing, taking of shorthand notes and transcribing them, and other office duties.

It might be added at this point that after a

considerable amount of this data had been collected and the writer had started to compile and interpret this information, it was found the information under this heading, as collected, was not detailed enough for our particular needs; therefore, a separate study was made of the offices. This special study is not included in this thesis.

THIRD SECTION: (Employment Data)

In order to be helpful to students, in advising them relative to the job requirements of industry in the city, in the placement of students in industry, in working out a course in the study of occupations, and also as a check on the curriculum in the part-time school, detailed information was collected regarding each group of workmen under the several pay roll classifications.

This information was listed directly under the separate questions asked and to the right of the particular group in question under "Pay Roll Classification."

"Minimum Entrance Age" and Minimum General Education Required." Under these two questions should be listed in numerical figures, the actual minimum entrance requirement into any pay roll classification as far as age and education are concerned.

"Months on Job to Acquire Efficiency." The time to be specified here should be the number of months or fraction of a month necessary to acquire mastery of the job under consideration. In other words, this means the length

of the adjustment period.

"Range in Wage per Hour." List under these spaces the high and low wage levels paid each different group.

"Is Labor Supply Adequate." This to be answered "yes" or "no".

"Source of Labor Supply." Where does the firm secure its help for the various jobs? A key was devised to facilitate the jotting down of this information, i.e.,

Legend: O = Ownership of business.

P = Promotion.

L = From similar or allied occupations
either locally or outside of city.

A = Apprenticeship.

S = Schools.

"Length of Apprenticeship." List under this heading the total learning time in months or fraction thereof.

"Number of Men Employees" and "Number of Women Employees." These should be listed numerically.

Items Nos. 12-13-14 under "Possibility of School Supplementing Training given in Industry," should be answered either by "yes" or "no". If answered "yes" it was shown that the school had a job to do and arrangements should be made at a later date to study these requirements separately and a training program set up to meet the needs.

CHAPTER III.

COMPILATION CHARTS

In order to make the best use of the material gathered from the many different plants, those firms which produced similar or allied products were grouped under one large heading and the results tabulated on the same charts. Because of the variety of questions asked, the writer devised three different charts to record the information secured from these various questions. For want of better names, these charts have been designated as follows:

Chart No. I -- General Employment Data.

Chart No. II -- Employment Data -- Pay Roll
Classifications.

Chart No. III -- Employment Data -- Pay Roll Jobs.

Chart No. 1
General Employment Data

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
		Total			

CHART NO. I.

GENERAL EMPLOYMENT DATA

This chart was devised as a ready means of having on hand a few pertinent facts regarding an industrial group. Instead of compiling all the facts secured on the questionnaire from the several plants or firms in a particular industrial group on one large chart, this first chart gives readily that type of information most commonly and frequently called for. These facts are general in nature. If specific information is required one will find this type of information in either Chart No. II or Chart No. III. Chart No. I is a bird's-eye view of an industrial group relative to General Employment Data, i.e., NAMES OF INDIVIDUAL FIRMS, PRODUCTS MANUFACTURED BY THEM, TOTAL NUMBER OF MEN, WOMEN, and APPRENTICES EMPLOYED by each organization as well as POSSIBILITY OF SCHOOL SUPPLEMENTING TRAINING GIVEN IN INDUSTRY.

Chart No. II
Employment Data - Pay Roll Classifications

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial							
Skilled Labor							
Semi-skilled Labor							
Common Labor							
Clerical							
Total		Legend: O = Ownership of business P = Promotion L = From similar or allied occupations either locally or outside of city A = Apprenticeship S = Schools					

CHART NO. II.

EMPLOYMENT DATA -- PAY ROLL CLASSIFICATIONS

This chart lists on the left hand side of the sheet, the large pay roll classifications used on the questionnaire such as MANAGERIAL, SKILLED LABOR, SEMI-SKILLED LABOR, COMMON LABOR, and CLERICAL. In the squares to the right of each of these items are inserted the compiled information relative to the answers of the questions above, i.e., NUMBER EMPLOYED, MINIMUM ENTRANCE AGE, MINIMUM GENERAL EDUCATIONAL REQUIREMENT, RANGE IN WAGES PER HOUR, MINIMUM TIME REQUIRED TO LEARN JOB, IS LABOR SUPPLY ADEQUATE, and SOURCE OF LABOR SUPPLY. This chart shows a little more in detail the combined information from all plants in an industrial group than does Chart No. I, but is not quite so detailed as is Chart No. III.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either lo-
 cally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	
Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	
Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group

CHART NO. III.

EMPLOYMENT DATA -- PAY ROLL JOBS

This chart gives one detailed information relative to the specific jobs, as listed on the questionnaire for all firms, in any one large industrial group. It shows in detail all pay roll jobs that are open to any one between the ages of 16 - 20 years, 21 - 25 years, and above 25 years of age. It is so arranged that by glancing to the right hand side of the chart one can easily locate the wages for each pay roll job. It is also arranged so one can easily find, by looking near the top of the chart, the requirements of any job as to the MINIMUM EDUCATION, TIME REQUIRED TO LEARN JOB, LABOR SUPPLY ADEQUATE, NUMBER EMPLOYED, and SOURCE OF LABOR SUPPLY.

CHAPTER IV.

COMPILATION AND INTERPRETATION OF DATA

The writer has, for convenience sake, arbitrarily placed all the firms studied into fourteen large homogeneous groups. Each group is given an industrial name that designates the nature of the firms studied under that heading. In some cases, perhaps, one may question whether a particular firm should have been placed where it is, but, in a broad sense, each firm is closely related to the general heading under which it is located.

The following is a list of the large industrial headings under which the ninety-one firms studied have been placed:

1. Automobile.
2. Baking.
3. Dairy.
4. Dry Goods.
5. Electrical.
6. Laundry and Dry Cleaning.
7. Metal.
8. Painting and Decorating.
9. Plumbing.
10. Power Machine.
11. Printing.
12. Public Utility.
13. Sheet Metal.

14. Woodworking.

Each industrial group has a series of three different charts that are compiled from the original data collected from the several firms listed under that heading. Detailed explanation of these charts can be found on pages 18 - 22. Following each chart is the writer's interpretation and conclusion drawn from the chart. Following this is a Verification Form which is signed by some of the employers and employees of the firms studied. In order to secure the signatures of these men, a personal interview was made for each one. In several cases there were less than four signatures secured for each industrial group, but this was due to the change in ownership of the firms studied. The original owners were not available and the new owners were not asked to verify these data because they were not connected with the individual firms at the time the data were collected. This same procedure is followed for each of the fourteen industrial groups studied.

Chart No. 1
General Employment Data
AUTOMOBILE

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Automotive Sales & Service	Auto Parts Replacement	4	1	0	Yes
Burrows, G. S.	Auto Trimming	5	2	0	Yes
Hamernik Motor Co.	Chevrolet	20	2	0	Yes
Crescent Motor Co.	Willys Knight-Overland	14	0	0	Yes
Entringer Motor Co.	Hudson-Essex-Gardner	10	2	0	Yes
Erickson Electric Co.	Electric Appliances	5	2	0	Yes
Gibson Auto Exchange	Rental & Repair	3	1	0	Yes
Hayward Tire Co.	Sales & Tire Repair	4	0	0	Yes
Huelsman Motor Co.	Pontiac-Oakland	3	3	0	Yes
Johnson Motor Co.	Studebaker	9	0	0	Yes
Krueger Bros.	Durant - Repairing	2	0	0	Yes
Latex Tire Co.	Tire Manufacturer	28	3	0	Yes
Mc Cumber Nash Co.	Nash	8	1	0	Yes
Poetter Service Garage	Service	3	0	0	Yes
Reo-Benz Motor Co.	Reo	3	0	0	Yes
Service Motor Co.	Ford & Fordson	29	1	0	Yes
Stover Battery Co.	Batteries	2	0	0	Yes
Wist Auto Sales	Chrysler	10	1	0	Yes
Total		162	19	0	

Chart No. I.
General Employment Data
AUTOMOBILE

INTERPRETATION:

An analysis of this chart shows that there were 18 firms studied. Of the 18 firms studied, 10 of them are sales and service stations for 14 different makes of cars. The remaining 8 firms are engaged, respectively, in the following: Auto trimming work, manufacturing of tires, repairs and sale of tires, general repair and service station, battery service station, replacing and sale of auto parts, auto electrical appliances and car rental and repair department. These 18 firms employ a total of 181 men and women, of whom 162 are men and 19 are women.

One of the most striking situations uncovered in this chart is the lack of an apprentice system. Another interesting point brought out is that all employers stated that there are possibilities for the school to supplement the training given in industry.

CONCLUSION:

Definite steps should be taken by the school to first sell the employers on the apprentice scheme of training as a whole, and then try to place a few boys in the employment of some of these firms.

This situation together with the additional training the school could give those already employed,

illustrates very forcibly, that the Auto Mechanics Department of the school has not functioned. It means that an individual interview with each employer should be made shortly, with the view of studying the needs for his employees' training and setting up a training program in school. It might be well, after this interview with the several employers, to call the group together at the school, have them go over the facilities in the Auto Mechanics Department and then, in a conference or two with the director and the auto mechanics instructor, map out a training program for the adult and the apprentice, if it is found advisable.

Chart No. II
Employment Data - Pay Roll Classifications
AUTOMOBILE

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	37	16-25 Years & Over	8-12 Grade	36¢ - \$1.00 & Up & Com.	$\frac{1}{2}$ - 12 Indef.	Yes No	OPL
Skilled Labor	68	16-25 Years	8-12 Grade	36¢ - \$1.00 & Com.	$\frac{1}{2}$ - 6	Yes No	PL
Semi-skilled Labor	55	16-25 Years	8-12 Grade	16¢ - \$1.00	$\frac{1}{2}$ - 6	Yes	PL
Common Labor	3	16-25 Years	8th Grade	16¢-80¢	1 Day	Yes	L
Clerical	18	16-25 Years	12th Grade	16¢ - \$1.00	$\frac{1}{2}$ - 6	Yes	PLS
Total	181	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

AUTOMOBILE

INTERPRETATION:

There are listed under Managerial classification 37 people whose minimum entrance age into this class ranges between 16 and 25 years or over. The minimum educational requirement for this group is from eighth grade through high school, and the wages range from 36¢ to \$1.00 and over, per hour. Several of those listed receive a salary plus commission or percentage. As to the time required to learn the job, we find it varies from $\frac{1}{2}$ month to 12 months, and in some instances this is an indefinite period. The labor supply for these jobs is generally adequate. In only a few instances this supply is not adequate. We find the source of labor supply is through promotion or secured locally and in some instances the individual is the owner of the business.

Under Skilled Labor we find 68 individuals having a minimum entrance age of 16 to 25 years with an educational requirement ranging from the eighth grade through high school. The wages range from 36¢ to \$1.00 an hour. About $\frac{1}{2}$ of this group works on a salary basis plus commission. It takes from $\frac{1}{2}$ month to 6 months to learn the job. In some cases the labor supply is adequate, while in others it is not, and in all cases it is secured locally or through

promotion.

Under Semi-skilled Labor, we find 55 individuals employed having a minimum entrance age of 16 to 25 years with an educational entrance requirement of eighth grade through high school. The wages range from 16¢ to \$1.00 per hour, and it takes from $\frac{1}{2}$ month to 6 months to learn the job. In all cases the labor supply is adequate and is secured locally or through promotion.

Under Common Labor, there are only 3 individuals employed having a minimum entrance age of 16 to 25 years with an eighth grade educational requirement. It takes up to one day to learn the job, while the wages range from 16¢ to 80¢ per hour. In each case the labor supply is adequate and is secured locally.

Under Clerical classification, there are 18 persons employed having a minimum entrance age of 16 to 25 years with at least a twelfth grade educational background. The wages range from 16¢ to \$1.00 per hour. One must spend from $\frac{1}{2}$ month to 6 months to learn the job. The labor supply is adequate and is secured locally, through promotion, or through the schools.

CONCLUSION:

One of the features of this chart is the large managerial staff; about one out of every 5 engaged in the industry is classified under this title. This is due to the large number of firms in the industry, each firm

having one or more individuals coming under this heading. There is also a noticeable lack of common labor, only 3 out of 181 employed, which shows that skill is required to a more or less degree in all jobs. The minimum age requirement for entrance in all classifications commences at 16 years. There is plenty of labor to supply the demands in this industry, and, for the better paying jobs, the chart would indicate that these positions are filled from the ranks by the promotional system. The chart also indicates that young people of part-time school age will find this industry offering a good field of employment. The pay is commensurable with the entrance requirements.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
 AUTOMOBILE

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group
Asst. Stock Man	8	1	Yes	1	L	Common Labor	8	--	Yes	1	L							16¢
Trimmer Helper	8	1	Yes	1	L													-
Seamstress Helper	8	1	Yes	1	L													35¢
Seamstress	8	2	Yes	1	L													
Errand Boy	8	1	Yes	1	L													
Stenographer	12	1	Yes	1	L													
Pattern Maker	12	1	Yes	1	L	Bookkeeper	12	3	Yes	1	L	Service Floor Supt.	8	3	No	1	P	
Trimmer	12	3	Yes	1	L	Asst. Office Manager	12	2	Yes	1	L	Auto Mechanic	8	1	No	4	L	
Stock Man	8	6	Yes	1	L	Auto Mechanic Helper	8	1-2	Yes	15	L							36¢
Stock Finisher	8	1	Yes	3	L	Auto Mechanic	8	1-2	Yes	11	L							-
Stock Preparer	8	1	Yes	3	L				No									60¢
Compounder	8	1	Yes	3	L	Janitor	8	1	Yes	1	L							
Shipping Clerk	8	1	Yes	1	L	Common Labor	8	--	No	1	L							
Trucker	8	1	Yes	1	L													
Auto Mechanic Helper	8	1-6	Yes	13	L													
Sub-Foreman	8	1	Yes	1	L													
Clerical	12	1-6	Yes	14	L													
Common Labor	8	1 D	Yes	1	L	Skilled Mechanic	8	1-3	Yes	7	L	Office Manager	12	2	No	1	L	
Trimmer	12	4	No	1	L	Battery Man	8	1	Yes	1	L	Service Manager	8	12	Yes	1	P	61¢
Fire Builder	8	1	No	4	L	Assistant Foreman	8	1	Yes	1	P	Shop Foreman	8	12	Yes	1	P	-
Vulcanizer	8	1	No	3	L													80¢
Engineer	8	1	No	1	L													
Auto Mechanic	8	2	Yes	3	L													
Foreman	8	3	Yes	4	P	Stock Man	8	3	No	1	P	Shop Superintendent	8	1	Yes	1	P	
Sub-Foreman	8	1	Yes	4	P	Salesman	8	1-3	Y-N	31	P	Stockroom Manager	8	1	Yes	1	L	
Salesman	8	1	Yes	3	L	Used Car Manager	8	2	No	1	P							81¢
Bookkeeper	12	1	Yes	1	L	Asst. Sales Manager	8	2	No	1	L							-
						Speedometer Man	8	1	Yes	1	L							\$1.00
						Electrician	8	3	Yes	2	L							
						Auto Mechanic	8	3	Yes	1	L							
												Owners	8	1-3	--	14	OP	\$1.01
												Sales Manager	8	1-3	No	4	P	&
												Shop Superintendent	12	--	Yes	1	L	Up
												Foreman	8	3	No	1	L	
TOTAL				73						78						30		

Chart No. III.

Employment Data -- Pay Roll Jobs

AUTOMOBILE

INTERPRETATION:

There are 181 people employed in this industry, 73 of whom entered between the ages of 16 and 20 years, 78 between 21 and 25 years, and 20 entered when over 25 years of age.

In the first wage group, there are 7 individuals receiving less than 36¢ per hour, 6 of whom entered the industry under 21 years of age, and one between the ages of 21 and 25 years.

In the second wage group, 77 individuals receive wages ranging from 36¢ to 60¢ per hour. Of these, 44 entered the industry under 21 years of age, 30 between the ages of 21 and 25 years, and only 5 when over 25 years of age.

In the third wage group, 25 individuals receive wages ranging from 61¢ to 80¢ per hour. Of these, 13 entered the industry under 21 years of age, 9 between the ages of 21 and 25 years and only 3 whose entrance age is over 25 years.

In the fourth wage group, 52 individuals receive wages ranging from 81¢ to \$1.00 per hour. Of these, 12 entered the industry under 21 years of age, 38 between the ages of 21 and 25 years, and 2 whose entrance age is over

25 years. The 31 salesmen listed in this group receive a commission or bonus over and above their regular salary.

In the fifth wage group, there are only 20 individuals listed and they receive a wage ranging from \$1.01 per hour and up. In some cases they also receive a commission. The amount of wages received by this group is rather intangible because of the nature of the jobs. These individuals are all over 25 years of age when they enter.

In all cases a high school education is required for the clerical positions and generally speaking an eighth grade education is sufficient for all other jobs. There are only a few jobs in which the labor supply is not adequate and is obtained locally. The time required to learn the various jobs outside of common labor, ranges from 2 weeks to one year with a majority of the jobs requiring from 2 weeks to 2 months.

CONCLUSION:

This chart brings out very clearly the opportunities of training and possible placement of the part-time students from our school. Of the 181 persons employed in this industry, 54 have an entrance age requirement of 16 to 20 years with an eighth grade educational requirement. There are 19 clerical positions open in the same age classification, but having a high school or commercial educational background. The part-time school should and can be of immediate service to these two groups.

There does not seem to be any particular system or way for one to learn the auto mechanics trade. This situation would be eliminated by introducing an apprenticeship training scheme. This chart also discloses a large number of pay roll jobs for which little or no training is necessary.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the AUTOMOBILE Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. S. C. Schaefer - Automotive Sales & Service - Mgr.
2. G. H. Simonson - Service Motor Co. - Mgr.
3. Eric Ericksen - Ericksen Electric Co. - Mgr.
4. H. J. Hamernik - Hamernik Motor Co. - Mgr.

Chart No. 1
General Employment Data
BAKING

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Snow Bakery	Bread, Pastries, etc.	7	3	0	Yes
Gerhard Baking Co.	Bread, Pastries, etc.	19	3	0	Yes
Mueller Bakery	Bread, Pastries, etc.	4	2	0	Yes
Purity Bakery	Bread, Pastries, etc.	2	1	0	Yes
Widding Delicatessen	Bread, Pastries, etc. & Lunches	2	5	0	Yes
Total		34	14	0	

Chart No. I.

General Employment Data

BAKING

INTERPRETATION:

An analysis of this chart shows that 5 firms were studied. All of them produce bread, pastries and cookies, while, in addition to this, one firm serves lunches. These 5 firms employ a total of 48 men and women, of whom 34 are men and 14 are women. Not one of these employees is listed as an apprentice. Every firm indicated that there were possibilities for the school to supplement the training given in industry for their employees.

CONCLUSION:

In view of the lack of any apprentices in this industry, it would seem that the school should cooperate with this trade with the aim in view of setting up a definite apprenticeship program. The chart also indicates that there is a need for some sort of training of their employees. This being true, a thorough study should be made of the baking industry as practiced in Fond du Lac and the results gone over with a committee from the trade with the aim in view of setting up a training program for this trade. The results from such a study should indicate the type of training needed and also whether an apprenticeship program would be desirable, as well as advisable.

Chart No. II
Employment Data - Pay Roll Classifications
BAKING

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	11	25 Years & Over	8-12 Grade	81¢ - \$1.00 & Up	4 - 10	Yes	OPL
Skilled Labor	15	21-25 Years	8th Grade	36¢-80¢	4	Yes	PL
Semi-skilled Labor	8	16-20 Years	8th Grade	16¢-80¢	$\frac{1}{2}$ - 2	Yes	L
Common Labor	6	21-25 Years	8th Grade	16¢-80¢	0 - $\frac{1}{2}$ Day	Yes	L
Clerical	8	16-25 Years	8-12 Grade	16¢-60¢	$\frac{1}{4}$ - 2	Yes	S
Total	48	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

BAKING

INTERPRETATION:

This chart shows 11 people listed under the Managerial classification out of a total of 48 employees. A minimum entrance age of over 25 years is required of each individual, with the minimum educational requirement for the group from eighth grade through high school. The wages range from 81¢ to \$1.00 per hour and over, and 4 months to 10 months is considered necessary to become efficient on the job. In all cases the labor supply is adequate and is secured through promotion, locally, or ownership of the business.

Under Skilled Labor, we find 15 individuals having a minimum entrance age of 21 to 25 years and completion of the eighth grade. The wages range from 36¢ to 80¢ per hour and 4 months is considered adequate to learn the job. The labor supply is adequate in all cases and is secured locally, and through promotion.

Under Semi-skilled Labor, we find 8 individuals listed having a minimum entrance age of 16 to 21 years and completion of the eighth grade. The wages range from 16¢ to 80¢ per hour and one must spend $\frac{1}{2}$ month to 6 months to learn the job. The labor supply is adequate and is secured locally.

Under Common Labor 6 individuals are listed having a minimum entrance age of 21 to 25 years and completion of the eighth grade. The wages range from 16¢ to 60¢ per hour and up to one half day is necessary to learn the job. The labor supply for this group is adequate and is secured locally.

Under Clerical classification there are 8 individuals listed, having a minimum entrance age of 16 to 25 years with an educational requirement from eighth grade through high school. The wages range from 16¢ to 60¢ per hour and one must spend from 1 week to 2 months to learn the job. The labor supply is adequate and is secured from the schools.

CONCLUSION:

One of the most striking things about this chart is the apparent lack of thought given toward promotions. Perhaps this might be due to the smallness of the shops studied or due to the system followed in managing the business. There is no chance for an individual in the groups below skilled labor to advance into the classes above them. An apprentice system of training mentioned in the conclusion of Chart No. I, Baking, would help to obviate this situation.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
 BAKING

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group	
Common Labor	8	0	Yes	3	L	Common Labor	8	$\frac{1}{2}$ D	Yes	2	L								16¢
Clerk	8	$\frac{1}{2}$	Yes	4	LS														-
Helpers	8	$1\frac{1}{2}$ -4	Yes	4	L														35¢
Clerical	12	$\frac{1}{2}$	Yes	2	S	Common Labor	8	0	Yes	1	L								36¢
Helper	12	2	Yes	2	P	Baker	8	4	Yes	11	LP								-
Stenographer	12	2	Yes	1	S	Bookkeeper	12	$\frac{1}{2}$	Yes	1	S								60¢
						Helper	12	2	Yes	2	L	Baker	8	4	Yes	2	L		61¢
																			-
						Baker	12	4	Yes	2	L	Foreman	8-12	4-6	Yes	4	P		81¢
																			-
												Manager	8-12	6-10	Yes	5	LO		\$1.01
												Superintendent	12	10	Yes	2	P		& Up
TOTAL				16						19						13			

Chart No. III.

Employment Data -- Pay Roll Jobs

BAKING

INTERPRETATION:

There are 48 people employed in this industry, 16 of whom entered the industry between the ages of 16 and 21 years, 19 between the ages of 21 and 25 years and 13 when over 25 years of age.

In the first wage group, there are 13 individuals receiving less than 36¢ per hour, 11 of whom entered the industry under 21 years of age and the remaining 2 between the ages of 21 and 25 years.

In the second wage group, 18 individuals receive wages ranging from 36¢ to 60¢ per hour. Of these, 5 entered between the ages of 16 and 20 years while 13 entered between the ages of 21 and 25 years.

In the third wage group, 4 individuals receive wages ranging from 61¢ to 80¢ per hour. Of these, 2 persons entered the industry between the ages of 21 and 25 years and the other 2 were over 25 years when they entered.

In the fourth wage group, 6 individuals receive wages ranging from 81¢ to \$1.00 per hour. Of these, 2 entered the industry between the ages of 21 and 25 years, and 4 were over 25 years of age when they entered.

In the fifth or last wage group, there are 7 individuals listed and they receive wages ranging from

\$1.01 per hour and up. The higher wage level is indefinite as some of these individuals were owners of the business and we were unable to obtain this information. The individuals entered the industry when over 25 years of age.

In all cases the labor supply was adequate and secured through promotion, schools, locally, or ownership of the business. The time required to learn the various jobs varied from $\frac{1}{2}$ day to 10 months and the required education varied from completion of the eighth to twelfth grade.

CONCLUSION:

As far as this study is concerned, there is little chance for promotion in this industry unless an individual has learned the baking trade and is a high school graduate.

There are 16 jobs in this industry that could be filled by students from the part-time school, but, unless a system of apprentice training is started, they would reach the limit of wages paid very shortly after they become efficient on their particular job and such a situation would not be advantageous to the individual.

This chart shows 48 individuals employed, 31 or 64 percent of whom receive less than 61¢ per hour. Eleven of these 31 individuals are classed as bakers. As far as financial remuneration is concerned and the present lack of promotion, it would not seem justifiable to encourage students to enter this industry except through an apprenticeship training plan.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the BAKING Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. Chas. Snow - Snow Baking Company - President

2. Joe D. Mueller - Mueller's Home Bakery - Owner

3. _____

4. _____

Chart No. 1
General Employment Data
DAIRY

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Damrow Brothers Co.	Dairy Supplies	47	4	0	Yes
Galloway-West Co.	Milk, Cream, Cheese	57	6	0	No
Winnebago Cheese Co.	Cheese	16	4	0	Yes
Fountain City Dairy Co.	Milk, Butter, Cream, Ice Cream	28	4	0	Yes No
Session's Ice Cream Co.	Milk, Butter, Ice Cream	20	3	0	Yes No
Total		168	21	0	

Chart No. I.

General Employment Data

DAIRY

INTERPRETATION:

An analysis of this chart shows that 5 firms were studied, 4 of whom are engaged in manufacture of dairy products, while the remaining one is engaged in the making of dairy supplies. These 5 firms employ a total of 189 men and women, of whom 168 are men and 21 are women. Not one of the employees is listed as an apprentice. In some instances the school can assist in the training of the employees while in others it can not.

CONCLUSION:

This chart shows that there are no firms using the apprenticeship system for training their skilled help. It also indicates that the school can not assist very much in the training of the employees. Steps should be taken by the school with the cooperation of the employers to make a detailed study of the workers in this field, with the idea in mind of setting up a systematic training program either in school or on the job, if found advisable.

Chart No. II
Employment Data - Pay Roll Classifications
DAIRY

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	26	16-25 Years & Over	8-12 Grade U.	61¢ - \$1.01 & Up	8 - 10	Yes	OPL
Skilled Labor	47	16-25 Years & Over	8-12 Grade	36¢ - \$1.00	1 - 6 Indef.	Yes	PL
Semi-skilled Labor	55	16-25 Years & Over	8-12 Grade	16¢ - \$1.00	1 - 12	Yes	PL
Common Labor	40	16-20 Years	8th Grade	36¢-80¢	Up to 3 days	Yes	L
Clerical	21	16-20 Years	12th Grade Com. Ed.	16¢-80¢	1 - 6	Yes	PLS
Total	189	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

DAIRY

INTERPRETATION:

This chart shows 26 people listed under Managerial classification out of a total number of 189 employees. The minimum entrance age is from 16 to 25 years and over, with an eighth grade or high school education, and in some instances a university education is required. The wages range from 61¢ to \$1.00 per hour and up and from 8 months to 10 months is required to learn the job. The upper limit is rather indefinite in that several were owners of the firms and were not willing to give us more definite information. The labor supply is adequate and is secured locally, through promotion, or ownership of the business.

Under Skilled Labor, we find 47 individuals having a minimum entrance age of 16 to 25 years and over, with an eighth grade or high school educational requirement. In some instances attendance at the university is necessary. The wages range from 36¢ to \$1.00 per hour, and from 1 month to 6 months is required to learn the job. In some instances this time was indefinite. The labor supply is adequate and is secured either locally or through promotion.

Under Semi-skilled Labor, we find 55 individuals having a minimum entrance age of 16 to 25 years and over, with an eighth grade or high school educational require-

ment. The wages range from 16¢ to \$1.00 per hour, and from 1 month to 12 months is considered necessary to learn the job. The labor supply is adequate and is secured either locally or through promotion.

Under Common Labor classification, we find 40 individuals having a minimum entrance age of 16 to 20 years and completion of the eighth grade. The wages range from 36¢ to 80¢ per hour, and up to 3 days is required to learn the job. The labor supply is adequate and secured locally.

Under Clerical classification, there are 21 individuals having a minimum entrance age of 16 to 20 years and a completion of high school or a commercial course. The wages range from 16¢ to 80¢ per hour, and from 1 month to 6 months is necessary to learn the job. The labor supply is adequate and is secured locally, through promotion, or through the schools.

CONCLUSION:

The striking situation disclosed in this chart is the evenness in the number of employees in the various pay roll classifications. One is led to believe, because of the large number of individuals listed under clerical and managerial classifications, that detail work plays an important part in this industry as does supervision and management. The line of promotion and chances for advancement are very good. It seems to be the policy of this

industry to promote their common labor to semi-skilled labor and then to skilled labor and so on without any clear-cut apprenticeship scheme. The pay is commensurate with the entrance requirement.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
 DAIRY

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group
Clerical	12	3-6	Yes	4	LS													16¢
Asst. Shipping Clerk	8	1	Yes	2	LP													35¢
Billing Clerk	12	6	Yes	1	LS	Helper	8	1	Yes	14	LP	Janitor	8	1	Yes	2	L	
Order Clerk	12	6	Yes	1	LP	Truck Driver	8	3	Yes	1	LP	Stock Clerk	8	5	Yes	1	LP	
General Office Girl	12	6	Yes	1	S							Shipping Clerk	8	5	Yes	1	LP	
Telephone Operator	12	6	Yes	1	S													
Foreman	12	12	Yes	2	L													
Clerical	12	3-8	Yes	10	LS													36¢
Common Labor	8	1-3D	Yes	18	L													60¢
Bookkeeper	12	4	Yes	2	LS													
Sheet Metal Helper	8	1	Yes	8	LP													
Woodworker Helper	8	1	Yes	2	LP													
Machine Helper	8	1	Yes	1	LP													
Tinner	8	1	Yes	4	LP													
Coal Passers	8	0	Yes	3	L													
Bookkeeper	12	10	Yes	1	LS	Sheet Metal Worker	8	4	Yes	8	LP	Skilled Labor	8-12	1-2	Yes	15	LP	
Asst. Engineer	12	4	Yes	3	P	Woodworker	8	4	Yes	3	LP	Foreman	8	8	Yes	5	LP	
Fireman	8	6	Yes	3	P	Machinist	8	4	Yes	2	LP							61¢
Millwright	8	6	Yes	3	P													-
Carpenter	8	6	Yes	1	L													80¢
Machinist	8	6	Yes	1	L													
Pipe Fitter	8	6	Yes	1	L													
Tinner	8	6	Yes	1	L													
Common Labor	8	1-3D	Yes	19	L													
Truck Driver	8	1-3	Yes	8	L													
Field Man	12	1-6	Yes	2	P							Superintendent	12	10	Yes	3	LP	
Head Milkman	Col.	1-6	Yes	1	P							Salesman	12	5	Yes	4	LP	81¢
Research	Col.	1-6	Yes	1	S							Chief Engineer	12	-	Yes	1	L	-
Labor Assistant	12	1-6	Yes	1	LP													\$1.00
Vacuum Pan Operator	12	1-6	Yes	2	P													
Process Man	12	1-6	Yes	2	P													
Sterilizer Man	12	1-6	Yes	2	P							Superintendent	12-16	12	Yes	4	LP	\$1.01
Superintendent	12	1-12	Yes	1	P							Asst. Superintendent	12	12	Yes	1	LP	&
												Manager	12-16	1-12	Yes	11	LPO	Up
TOTAL				113						28						48		

Chart No. III.

Employment Data -- Pay Roll Jobs

DAIRY

INTERPRETATION:

There are 189 individuals employed in this industry, 113 of whom entered the industry between the ages of 16 and 21 years, 28 between the ages of 21 and 25 years, and 48 when over 25 years of age.

In the first wage group, there are 6 individuals receiving less than 36¢ per hour, all of whom entered the industry under 21 years of age.

In the second wage group there are 73 individuals receiving wages from 36¢ to 60¢ per hour; of these, 54 entered between the ages of 16 and 20 years, 15 between the ages of 21 and 25 years, and the remaining 4 above the age of 25 years.

In the third wage group there are 74 individuals receiving wages ranging from 61¢ to 80¢ per hour; of these, 41 entered between the ages of 16 and 21 years, 13 between ages of 21 and 25 years, and 20 when over 25 years of age.

In the fourth wage group there are 17 individuals receiving wages ranging from 81¢ to \$1.00 per hour; of these, 9 entered the industry between the ages of 16 and 21 years and the remaining 8 were over 25 years of age.

In the fifth or last wage group, there are 19 individuals listed who receive wages ranging from \$1.01 per

hour and up. The higher wage level is rather indefinite as some of these individuals are owners or managers of the business and were reluctant to give us more definite information. Of these 19 individuals, 3 of them entered the industry under 21 years of age, while the remaining 16 were over 25 years of age.

In all cases the labor supply was adequate and is secured either locally, through promotion, ownership of the business, or through the schools. The time required to learn the various jobs varies greatly, in several instances it is up to one year, and the education varies from eighth grade to high school, and in some instances a college education is necessary.

CONCLUSION:

The majority of the people employed, namely: 113 or 60 percent, are working at jobs that are available to workers under 21 years of age. These jobs are fairly well distributed among the various wage groups, which offers splendid opportunities and encouragement in holding a worker, thus cutting down labor turnover. The time required to learn the job is somewhat longer than in most other industries, which indicates that there is considerable skill necessary to do the jobs. There is a lack of any systematic apprentice training, although one may advance from the lower to the higher paying positions by the promotional system. This chart brings out the fact that supervision plays an

important part because of the number of superintendents,
foremen and managers listed.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the DAIRY Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED	FIRM	POSITION
1. A. N. Seibel	- Session Ice Cream Co.	- Office Mgr.
2. A. F. Sullivan	- Fountain City Dairy Co.	- Mgr.
3. E. P. Galloway	- Galloway-West Co.	- Vice-Pres.
4. E. C. Damrow	- Damrow Bros. Co.	- President

Chart No. 1
General Employment Data
DRY GOODS

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Hill Bros.	Dry Goods	9	60	0	Yes
J. C. Penney Co.	Dry Goods	10	17	0	Yes
Wagner Dry Goods Co.	Dry Goods	8	21	0	Yes
Total		27	98	0	

Chart No. I.
General Employment Data
DRY GOODS

INTERPRETATION:

An analysis of this chart shows 3 firms studied. All of these firms are in the dry goods business. They employ a total of 125 men and women, of whom 27 are men and 98 are women. There are no regular so-called apprentices, but the men in one firm are hired with the idea in mind of being suitable material for future managers and are part of a regular systematic training program.

Each firm indicated that there were possibilities for the school to supplement the training given in this industry for their employees.

CONCLUSION:

In as much as there is a need for additional training of the employees in all firms, arrangements should be made with the employers to study their training problems with the idea in mind of setting up training classes either in school or in the stores. The exact nature of the work would be the direct result of this study. At the present time, many employees of these firms are taking advantage of several courses in the Evening School, but more directly related courses could be offered if a need for them were shown.

Chart No. II
Employment Data - Pay Roll Classifications
DRY GOODS

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	19	21-25 Years	8-12 Grade	36¢ - \$1.00 & Up Indef.	$\frac{1}{2}$ - 12	No	OPL
Skilled Labor	86	16-25 Years	8-12 Grade	16¢-80¢	$\frac{3}{4}$ - 10	Yes	PL
Semi-skilled Labor	5	16-25 Years	8th Grade	16¢-80¢	1 - 6	Yes	PL
Common Labor	6	Over 25 Years	8th Grade	36¢-60¢	Up to one week	Yes	L
Clerical	9	16-25 Years	8-12 Grade	16¢-60¢	1 - 2	Yes	PLS
Total	125	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II,
Employment Data -- Pay Roll Classifications
DRY GOODS

INTERPRETATION:

This chart shows 19 people listed under Managerial classification out of a total of 125 employed. A minimum entrance age of 21 years is required of each individual, with the minimum educational requirement for the group of an eighth grade or a high school education. The wages range from 36¢ to \$1.00 per hour and up. The upper limit is rather indefinite in that the individuals in this class are owners or managers of the business and would not give us more definite information. From 2 weeks to 12 months is considered necessary to learn the job. In some cases the labor supply is not adequate and is secured either locally, through promotion, or ownership of the business.

Under Skilled Labor, we find 86 individuals having a minimum entrance age of 16 to 25 years, and either an eighth grade or a high school educational requirement. The wages range from 16¢ to 80¢ per hour and from 3 weeks to 10 months is considered necessary to learn the job. The labor supply is adequate and is secured locally or through promotion.

Under Semi-skilled Labor, we find 5 individuals listed, having a minimum entrance age of 16 to 25 years

with an eighth grade education. The wages range from 16¢ to 80¢ per hour and 1 month to 6 months is considered necessary to learn the job. The labor supply is adequate in all cases and is secured locally or through promotion.

Under Common Labor classification, we find 6 individuals having a minimum entrance age of over 25 years with an eighth grade education. The wages range from 36¢ to 60¢ per hour and in some cases one week is considered necessary to learn the job. The labor supply is adequate and is secured locally.

Under Clerical classification, there are 9 individuals listed having a minimum entrance age of 16 to 20 years with either an eighth grade or high school education. The wages range from 16¢ to 60¢ per hour and from 1 month to 2 months is considered necessary to learn the job. The labor supply is adequate and is secured either locally, through promotion, or through the school.

CONCLUSION:

The large number of individuals listed under the Managerial classification indicates that close supervision is necessary in this business. Sixty-nine percent of the total number employed are listed under skilled labor classification and 16 percent under the managerial classification. The line of promotion and chances for advancement are nearly unlimited. The wages paid are commensurate with entrance requirements. The part-time school student has the

necessary age and educational requirements to meet all pay roll classifications, with the exception of common labor, which group requires older people due to the nature of their particular jobs.

Legend: O= Ownership of business
P= Promotion
L= From similar or allied occupations either locally or outside of city
A= Apprenticeship
S= Schools

Chart No. III.
Employment Data - Pay Roll Jobs.
DRY GOODS

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group
Elevator Girl	8	1 1/2	Yes	1	LP	Auditor	12	1	Yes	1	L							16¢
Clerical	12	2-3	Yes	2	S	Bookkeeper	12	1	Yes	1	L							-
Salesladies	8	4-6	Yes	7	L													35¢
Salesmen	8	4-6	Yes	2	L													
Salesladies	8	2-1	Yes	39	LP	Salesladies	8-12	2-4	Yes	14	LP	Dress Fitter	8	10	Yes	1	LP	
Bookkeeper	12	1	Yes	1	LP	Department Heads	12	1 1/2	Yes	9	LP	Shipping Clerk	8	1-2	Yes	1	LP	
Billing Mach. Operator	12	1	Yes	1	LP	Salesmen	8-12	2-4	Yes	9	LP	Janitor	8	1 1/2	Yes	2	LP	36¢
Invoice Clerk	12	1	Yes	1	LP							Scrubwomen	8	2	Yes	4	L	-
Cashier	12	1	Yes	1	LP													60¢
Stenographer	12	1	Yes	1	LP													
Semi-skilled Sales-lady	8	1	Yes	1	L													
												Linoleum Layer	8	5	Yes	1	LP	61¢
												Drapery Man	8	5	Yes	1	LP	80¢
						Window Trimmer	8	5	Yes	1	LP	Head Buyer	12	4-5	Yes	1	P	81¢
						Head Buyer	12	4-5	Yes	1	P							-
						Buyer	8	8	Yes	13	LP							\$1.00
												Manager	12	4-12	Yes	3	O	
												Merchandise Manager	12	4-12	No	2	P	\$1.01
												Office Manager	12	12	Yes	1	P	&
												Interior Decorator	12	6-8	Yes	1	P	Up
												Sales Manager	12	10	Yes	1	P	
TOTAL				57						49						19		

Chart No. III.

Employment Data -- Pay Roll Jobs

DRY GOODS

INTERPRETATION:

There are employed in this industry 125 people, 57 or 45 percent of whom entered the industry between the ages of 16 and 20 years of age. Forty-nine or 39 percent entered between the ages of 21 and 25 years, and 19 entered when over 25 years of age.

In the first wage group there are 14 individuals receiving less than 36¢ per hour, 12 of whom entered under 21 years of age and the remaining 2 were between 21 and 25 years of age.

In the second wage group, we find 85 individuals whose wages range from 36¢ to 60¢ per hour. Of this group, 45 entered the industry under 21 years of age, 32 entered between the ages of 21 and 25 years, and the remaining 8 were over 25 years of age.

In the third wage group, we find 2 individuals who received wages ranging from 61¢ to 80¢ per hour, both of whom were over 25 years of age when they entered.

In the fourth wage group, we find 16 individuals listed who received 81¢ to \$1.00 per hour. Fifteen entered the industry between the ages of 21 and 25 years while the remaining one was over 25 years of age.

In the fifth or last wage group, we find 8 indi-

viduals listed who received wages ranging from \$1.01 per hour and up. The upper wage limit is rather indefinite because of ownership of the business and our inability to secure more definite information. All these individuals entered the industry when over 25 years of age.

With two exceptions the labor supply is adequate and is secured locally, through promotion, ownership of the business, and in a few instances through the school. The amount of time varies greatly with the type of job. In some instances it runs up to a year; these cases involve ownership of the business. The required education varies from completion of eighth grade through high school.

CONCLUSION:

This chart shows that 57 individuals or 45 percent of the total are working at jobs available to workers under 21 years of age, 49 individuals or 39 percent at jobs requiring an entrance age of 21 to 25 years, and 19 individuals or 16 percent at jobs that require an entrance age of over 25 years. Most of the workers, 99 or 79 percent of the total, are in the first 2 wage groups.

The labor supply is adequate in all cases except one pay roll job. The higher paying jobs require a high school education. There is no recognized system of training except the promotional system and the conditions as cited in interpretations, page 58. The source of labor for nearly every job is secured either locally or through

promotion.

Following up the study as suggested under conclusion, page 58, this industry ought to be able to absorb many of our part-time students in that there is apparently only a short training period necessary for the workers under 21 years of age. The school has not functioned in so far as placing its students in either the clerical or salesladies' positions.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the DRY GOODS Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. Walter R. Meister - Hill Brothers - Adv. Mgr.

2. J. B. Atkinson - J. C. Penney Co. - Manager

3. _____

4. _____

Chart No. 1
General Employment Data
ELECTRICAL

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Service Electric Co.	Electrical Service	3	1	2	Yes
B. Krautsch	Electrical Service	3	1	0	Yes
Kaufman Electric Co.	Electrical Service	5	1	2	Yes
Bachman Electric Co.	Electrical Service	4	1	0	Yes
Londre Electric Co.	Electrical Service	2	0	0	Yes
Krueger Electric Co.	Electrical Service	4	1	2	Yes
E. F. Maze	Electrical Service	3	1	0	Yes
Miller Electric Co.	Electrical Service	2	0	1	Yes
Total		26	6	7	

Chart No. I.

General Employment Data

ELECTRICAL

INTERPRETATION:

An analysis of this chart shows that 8 firms were studied, all of whom are in the general electrical service. These 8 firms employ a total of 39 men, women, and apprentices, of whom 26 are men, 6 are women, and 7 are apprentices. Every firm indicated that the school could supplement the training given in industry for their employees.

CONCLUSION:

This chart shows very definitely that the employers have the future of the trade in mind by the number of apprentices employed and also because they feel the need of further training of all their employees. It might be stated that the proportion of journeymen to apprentices is out of balance in some instances. Since this survey was taken, the ratio of the number of journeymen to apprentices has been considered and adjusted, and more employers have put on apprentices. At the present writing, no one employer has more than one apprentice. This changed situation is due, in a large measure, to the efforts of the Vocational School in training not only the employees, but also the masters.

Chart No. II
Employment Data - Pay Roll Classifications
ELECTRICAL

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	8	Over 25 Years	8-12 Grade	\$1.01 & Up Indef.	6 - 10	Yes No	0
Skilled Labor	17	21-25 Years	8-12 Grade	61¢-80¢	4	Yes No	LA
Semi-skilled Labor	0						
Apprentice Common Labor	7	16-20 Years	8-12 Grade	16¢-35¢	48	Yes No	LS
Clerical	7	16-25 Years	12th Grade	16¢-60¢	2	Yes No	LS
Total	39	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II

Employment Data -- Pay Roll Classifications

ELECTRICAL

INTERPRETATION:

This chart shows 8 people listed under Managerial classification out of a total of 39 employed. A minimum entrance age of over 25 years is required of each individual, with a minimum educational requirement for the group of an eighth grade or high school education. The wages range from \$1.01 per hour and up. This is rather indefinite in that all individuals in this class are owners of their business and would not give us more detailed information. From 6 months to 10 months is considered necessary to learn the job. In some cases the labor supply is adequate, while in others it is not and is secured by ownership of the business.

Under Skilled Labor, we find 17 individuals having a minimum entrance age of 21 to 25 years and either an eighth grade or high school education. The wages range from 61¢ to 80¢ per hour, and 4 months is considered adequate to become efficient on the job. The labor supply is not adequate in some instances and is secured either locally or through the apprenticeship system.

There are no employees listed as Semi-skilled or Common Labor in this trade.

Under Apprentice, we find 7 individuals having a

minimum entrance age of 16 to 20 years and either an eighth grade or high school education. The wages range from 16¢ to 35¢ per hour, and 4 years is considered necessary to learn the job. The labor supply is not adequate in some instances and is secured locally or through the schools.

Under Clerical classification, there are 7 individuals listed, having a minimum entrance age of 16 to 25 years and a high school education. The wages range from 16¢ to 60¢ per hour and 2 months is required to learn the job. The labor supply is not adequate in some instances and is secured either locally or through the schools.

CONCLUSION:

One of the striking features of this chart is the absolute lack of semi-skilled and common labor. Another interesting point is the large proportion of managerial employment, there being one individual in this classification to every two journeymen. This indicates a number of small shops with a few employees. It is noteworthy to mention the importance given the future of the trade by the number of apprentices employed. This chart shows that the labor supply in all classifications is not adequate. This means that it is difficult to obtain efficient help. Steps have been taken by the school to correct this situation and at the present time this particular situation is being corrected. It would seem that the employers are agreed that the future of the trade depends upon the type of journeymen

employed and for that reason we find a large number of apprentices listed. There being no one listed under the common labor or semi-skilled classification also indicates that this is a skilled trade or that there are certain regulations regarding employment in this trade.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
ELECTRICAL

Minimum Entrance Age 16 to 20 years	Minimum Entrance Age 21 to 25 years					Minimum Entrance Age Above 25 years					Wage Group										
	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor					
Apprentice Bookkeeper Clerical	8-12	48	Y-N	7	LS	Bookkeeper	12	2	No	2	L					16¢					
	12	2	Yes	1	L											-					
	12	2	Y-N	3	LS											35¢					
Bookkeeper	12	2	No	1	L											36¢					
						Electrician	8-12	4	Y-N	17	LA					61¢					
																81¢					
																\$1.00					
																Owner & Manager	8-126-10	Y-N	8	0	\$1.01 & Up
TOTAL				12						19					8						

Chart No. III.

Employment Data -- Pay Roll Jobs

ELECTRICAL

INTERPRETATION:

There are 39 people employed in this trade, 12 of whom entered the industry between the ages of 16 and 20 years, 19 between 21 and 25 years, and 8 entered when over 25 years of age.

In the first wage group, there are 13 individuals receiving less than 36¢ per hour, 11 of whom entered the industry under 21 years of age and the remaining 2 were between the ages of 21 and 25 years.

In the second wage group, we find one individual listed who receives wages ranging from 36¢ to 60¢ per hour. He entered the industry when between 16 and 20 years of age.

In the third wage group, we find 17 individuals listed who receive wages ranging from 61¢ to 80¢ per hour. Of these individuals, all entered the industry when between 21 and 25 years of age.

There is no one listed in the fourth wage group.

In the fifth, or last wage group, there are 8 individuals listed, all over 25 years of age, receiving wages ranging from \$1.01 per hour and up. The higher wage level is indefinite as all the individuals listed are owners of the business and we were not able to obtain this information. The labor supply is inadequate in most cases

and is secured locally and through the schools, with the exception of the owners of the business. The amount of time necessary to learn the various jobs varies greatly with the type of job, and the required education varies from completion of the eighth grade or high school.

CONCLUSION:

This chart shows very plainly that no one can enter this trade unless he is an apprentice, skilled journeyman, or manager of the business, or is able to handle the office end of the business. The number of pay roll jobs are therefore limited. It also clearly shows the line of promotion and chances for advancement. One enters the trade through an apprenticeship, serves 4 years learning the trade and then jumps to the journeyman's classification, where he stays. In order to increase one's wages above this group, he must become a manager or owner of a business. This rather limited promotion is, apparently, the reason for so many small shops.

Another step that has recently been developed is that of "Supervising Electrician." This has been brought about by state laws and local ordinances. While the owner may be a good business man, he may be a poor electrician, and vice versa, therefore, unless the contractor is a good electrician, he must hire some one to assume the responsibility for him. This will add another pay roll job to this chart.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the ELECTRICAL Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. H. H. Bachman - Bachman Electric Co. - Manager
2. Carl A. Hoernig - Service Electric Co. - Owner
3. C. F. Krueger - Krueger Electric Co. - Owner
4. A. A. Kaufman - Kaufman Electric Shop - Owner

Chart No. 1
General Employment Data
LAUNDRY & DRY CLEANING

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Fond du Lac Steam Laundry	Laundry & Dry Cleaning	9	12	0	Yes
Model Laundry	Laundry & Dry Cleaning	11	30	0	Yes
Kienow Klothes Kleaners	Dry Cleaning & Pressing	3	2	0	Yes
Krenke Cleaners	Dry Cleaning & Pressing	4	1	0	Yes
Total		27	45	0	

Chart No. I.

General Employment Data
LAUNDRY AND DRY CLEANINGINTERPRETATION:

An analysis of this chart shows 4 firms studied. Of the 4 firms, 2 of them do laundry work as well as dry cleaning while the other 2 do dry cleaning and pressing only. These 4 firms employ a total of 72 men and women, of whom 27 are men and 45 are women. There is not an apprentice listed. Every firm indicated that there were possibilities for the school to supplement the training given in industry for their employees.

CONCLUSION:

In view of the lack of any apprentices in this industry, it would seem that the school should cooperate with this industry with the aim in view of setting up a definite apprenticeship training program. The chart also indicates that there is need for some sort of training for the employees. This being true, a thorough job analysis should be made of this industry as practiced in Fond du Lac and the results gone over with a committee from the trade, with the aim in view of setting up a training program for this industry. The results from such a study would indicate the type of training needed and also whether an apprenticeship program would be advisable as well as desirable.

Chart No. II
Employment Data - Pay Roll Classifications
LAUNDRY & DRY CLEANING

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	8	25 Years & Over	8-12 Grade	36¢ - \$1.00 & Up	6 - 12	Yes No	OPL
Skilled Labor	25	16-25 Years	8-12 Grade	16¢-80¢	3 - 6	Yes	LP
Semi-skilled Labor	14	16-20 Years	8th Grade	16¢-80¢	$\frac{1}{2}$ - 2	Yes	LS
Common Labor	17	16-20 Years	8th Grade	16¢-35¢	1 Day	Yes	L
Clerical	8	16-25 Years	12th Grade Com'l.	16¢-60¢	$\frac{1}{2}$ - 6	Yes	PLS
Total	72	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

LAUNDRY AND DRY CLEANING

INTERPRETATION:

This chart shows 8 people listed under the Man-
gerial classification out of a total of 72 individuals employed. A minimum entrance age of over 25 years is required of each individual, with the minimum educational requirement for the group from eighth grade through high school. The wages range from 36¢ up to \$1.00 per hour and up, and 6 months to 10 months is considered necessary to become efficient on the job. The labor supply is not always adequate and is secured locally, through promotion, or ownership of the business.

Under Skilled Labor, we find 25 individuals having a minimum entrance age requirement of 16 to 25 years with an educational requirement ranging from eighth grade through high school. The wages range from 16¢ to 80¢ per hour and one must spend from 3 months to 6 months to learn the job. The labor supply is adequate and is secured locally or through promotion.

Under Semi-skilled Labor, we find 14 individuals listed having a minimum entrance age of 16 to 20 years with an eighth grade educational requirement. The wages range from 16¢ to 35¢ per hour, and one must spend $\frac{1}{2}$ month to 2 months to learn the job. The labor supply is adequate and

is secured either locally or through the schools.

Under Common Labor, 17 individuals are listed having a minimum entrance requirement of 16 to 20 years, with an eighth grade educational requirement. The wages range from 16¢ to 35¢ per hour and in some cases up to one day is required to learn the job. The labor supply is adequate for the group and is secured locally.

Under Clerical classification, there are 8 individuals employed with a minimum entrance age of 16 to 25 years. Completion of the high school or a commercial course is the minimum educational requirement. The wages range from 16¢ to 60¢ per hour and one must spend from $\frac{1}{2}$ month to 6 months to learn the job. The labor supply is adequate and is secured through the schools, locally, and through promotion.

CONCLUSION:

This industry does not have a regular apprenticeship training scheme for securing skilled labor, but they promote their more promising help as soon as the individuals are capable and an opening is available. One employer stated that he is always on the look-out for and hires boys who are high school graduates and who have a liking for chemistry. This type of individual goes to the top of the laundry business but is a hard individual to find.

Legend: O= Ownership of business
P= Promotion
L= From similar or allied occupations either locally or outside of city
A= Apprenticeship
S= Schools

Chart No. III.
Employment Data - Pay Roll Jobs.
LAUNDRY & DRY CLEANING

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group	
Semi-skilled	8	$\frac{1}{2}$ -2	Yes	14	LS	Skilled Labor	8	5	Yes	11	LP								
Common Labor	8	1D	Yes	17	L	Bookkeeper	12	3	Yes	1	LP								16¢
Bookkeeper	12	$\frac{1}{2}$ -1	Yes	1	L														-
Complaint Girl	12	$\frac{1}{2}$ -1	Yes	1	LS														35¢
Stenographer	12	$\frac{1}{2}$ -1	Yes	1	LS														
Skilled Labor	8	3	Yes	7	P	Publicity & Service						Forelady	8-10	6	Yes	1	P		36¢
Clerk	12	2-6	Yes	3	LPS	Director	12	2	Yes	1	LP								-
						Skilled Labor	8	3	Yes	3	LP								60¢
Skilled Labor	12	3	Yes	4	L														61¢
																			-
												Superintendent	12	12	Yes	1	P		81¢
												Foreman	8-10	6-12	Yes	2	P		-
																			\$1.00
												Manager	8-12	12	Y-N	4	O		\$1.01 & Up
TOTAL				48						16							8		

Chart No. III.

Employment Data -- Pay Roll Jobs

LAUNDRY AND DRY CLEANING

INTERPRETATION:

There are 72 persons employed in this industry, 48 of whom enter between the ages of 16 and 20 years, 16 between the ages of 21 and 25 years, and 8 when over 25 years of age.

In the first wage group there are 46 individuals receiving less than 36¢ per hour, 34 of whom enter the industry under 21 years of age and 12 between the ages of 21 and 25 years.

In the second wage group, 15 individuals receive wages ranging from 36¢ to 60¢ per hour. Of these, 10 enter the industry under 21 years, 4 between the ages of 21 and 25 years while only one entered when over 25 years of age.

In the third wage group, 4 individuals receive wages ranging from 61¢ to 80¢ per hour. All of these individuals enter the industry when under 20 years of age.

In the fourth wage group there are 3 individuals who receive wages ranging from 81¢ to \$1.00 per hour and all enter the industry above the age of 25 years.

In the fifth or last wage group, we find 4 individuals listed whose wages range from \$1.01 per hour and over. The highest wage level is indefinite because all of them are managers or owners of the business and it is im-

possible to state their salary on a definite hourly basis.

In all but the highest wage level group, the labor supply is adequate and was secured through promotion, schools, or locally. The time required to learn the various jobs varies from completion of the eighth grade to the twelfth grade.

One of the most interesting features of this chart is that 48, or more than one half of the total number of employed, enter the industry under 21 years of age, while 34 of them receive an entrance wage of less than 36¢ per hour. There is a noticeable lack of pay roll jobs beyond the second pay roll group.

CONCLUSION:

With an apprentice training program inaugurated, this industry ought to be able to take on some of our part-time students as they qualify as far as age and education is concerned. This would seem to fit into the situation as cited in the above paragraph, that is, the encouragement this industry gives to young people. Apparently this industry does not need very much skilled help, which may be the reason for so few individuals receiving more than 60¢ per hour.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the LAUNDRY & DRY CLEANING Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. L. G. Korrer - Model Laundry Co. - Manager
2. Ferd. J. Kienow - Kienow Kleeners - Owner
3. H. H. Dodd - Fond du Lac Steam Laundry - President
4. Miles Adrian - Adrian Bros. - Manager

Chart No. 1
General Employment Data
METAL

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Giddings & Lewis	Machine Tools	219	5	13	Yes
Demountable Typewriter Co.	Typewriters	47	18	2	Yes
Tobin Tool & Die Co.	Tools and Dies	12	0	0	Yes
Gabel Bros. Co.	Commercial Repair Shop	4	1	0	Yes
Schroeder Mach. & Supply Co.	Commercial Repair Shop	4	1	0	Yes
Wells Manufacturing Co.	Radios	11	35	0	Yes
Morris Foundry	Castings	3	1	1	Yes
Vulcan Manufacturing Co.	Structural Steel	33	1	0	Yes
Michler Co.	Commercial Repair Shop	11	2	0	Yes
Total		344	64	16	

Chart No. I.

General Employment Data

METALINTERPRETATION:

An analysis of this chart shows that 9 firms were studied. Of the 9 firms studied 3 of them dealt in commercial repair work. The remaining 6 firms are engaged, respectively, in the following: Manufacture of machine tools, typewriters, tools and dies, radios, castings, and structural steel. These 9 firms employ a total of 424 men, women, and apprentices, of whom 344 are men, 64 are women, and 16 are apprentices. Each firm indicated that the school could supplement training given in industry to their employees. An interesting situation is the distribution of the number of apprentices employed by these 9 firms. Thirteen out of the 16 apprentices are employed in one firm, while 2 of the remaining are employed at another.

CONCLUSION:

In studying this chart one can plainly see that where skilled workmen are needed in large numbers, the firm has adopted an apprenticeship system of training. It also indicates several firms employing skilled men doing nothing toward training future tradesmen. The Vocational School has a number of different classes organized, both in the day and evening school, that have been built up around the requirements of this trade, and workmen from the

firms studied in this chart are enrolled in them, which indicates that the school is assisting in training the employees of this trade.

It is also interesting to note that, since this survey was taken, one concern has added three apprentices to its pay roll.

Chart No. II
Employment Data - Pay Roll Classifications
METAL

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	45	21-25 Years & Over	8-12 Grade Col.	61¢ - \$1.00 & Up Indef.	$\frac{1}{2}$ - 12	Yes No	OPL
Skilled Labor	116	21-25 Years	8th Grade	36¢-80¢	$\frac{1}{2}$ - 4	Yes No	PLA
Semi-skilled Labor	205	16-25 Years	8th Grade	36¢-60¢	$\frac{1}{2}$ - 6	Yes	PL
Apprentice	16	16-20 Years	8th Grade	16¢-35¢	36 - 48	Yes	LS
Common Labor	20	21-25 Years	8th Grade	16¢-60¢	2 Days	Yes	L
Clerical	22	16-25 Years	12th Grade	16¢-60¢	1 - 3	Yes	LS
Total	424	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

METALINTERPRETATION:

This chart shows 45 people listed under Managerial classification out of a total of 424 employed. A minimum entrance age of 21 years and over is required of each individual with a minimum educational requirement of from eighth grade through high school and on to college. The wages range from 61¢ to \$1.00 per hour and up. In some cases this is rather indefinite, in that there are several owners listed and we could not secure more definite information from them. From $\frac{1}{2}$ month to 12 months is considered a minimum amount of time to learn the job. The labor supply is not adequate in all cases and is secured locally, through promotion or ownership of the business.

Under Skilled Labor, we find 116 individuals having a minimum entrance age of from 21 to 25 years and an eighth grade educational requirement. The wages paid this group range from 36¢ to 80¢ per hour, and from $\frac{1}{2}$ month to 4 months is considered necessary to become efficient on the job. The labor supply is not adequate in all cases and is secured locally, through promotion or through apprenticeship training.

Under Semi-skilled Labor classification, we find 205 individuals having a minimum entrance age from 16 to 25

years and an eighth grade educational requirement. The wages paid the group range from 36¢ to 60¢ per hour and from $\frac{1}{2}$ month to 6 months is considered necessary to become efficient on the job. The labor supply is adequate in all cases and is secured locally or through promotion.

Under Apprentice classification, we find 16 individuals having a minimum entrance age of 16 to 20 years, with an eighth grade educational background. The wages paid this group range from 16¢ to 35¢ per hour and either 36 months or 48 months is considered necessary to learn the job. The labor supply is adequate and is secured either locally or through the schools.

Under Common Labor classification, we find 20 individuals having a minimum entrance age of 21 to 25 years with an eighth grade educational background. The wages paid this group range from 16¢ to 60¢ per hour, and in some cases up to 2 days is required to learn the job. The labor supply is adequate in all cases, and is secured locally.

Under Clerical classification, we find 22 individuals having a minimum entrance age of 16 to 25 years and a high school educational background. The wages paid this group range from 16¢ to 60¢ per hour, and from 1 month to 3 months is considered necessary to learn the job. The labor supply is adequate in all cases, and is secured either locally or through the schools.

CONCLUSION:

Here we find an industry that pays a considerable amount of attention to the future of the trade by employing 16 apprentices, which is over 3 percent of the total number employed or 13 percent of the number of skilled workmen employed. One is lead to believe that the high wages paid skilled labor is due in part to the emphasis placed on the learning period, which is 36 months in some cases and 48 months in others.

The large number of semi-skilled labor listed indicates that some firms studied employ machine operators or specialists in certain parts of the trade. There is also an indication of a good deal of supervision in that over 10 percent of the total number employed are in the managerial classification. The individual entering this trade is not handicapped, except by his own inability to perform, in reaching the top where lucrative wages are paid. This is indicated by the emphasis given to promotion in answering the question of source of labor.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.

METAL

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group
Assembler	8	$\frac{1}{2}$ -1	Yes	43	L	Clerical	12	3	Yes	1	LS							16¢
Bookkeeper	12	1	Yes	1	L	Common Labor	8	2	Yes	10	L							-
Machine Apprentice	8	48	Yes	12	LS													35¢
Moulder Apprentice	8	36	Yes	4	LS													
Clerical	12	1	Yes	16	LS	Woodworker	8	3	No	2	L							
Machine Operator	8	6	Yes	32	L	Locksmith	8	4	Yes	1	P							
Tool Maker Helper	8	6	Yes	2	L	Blacksmith	8	4	Yes	4	P							
Bookkeeper	12	1	Yes	3	L	Bookkeeper	12	3	Yes	1	LS							
Auto Repair Man	8	3	Yes	1	L	Machine Operator	8	$\frac{1}{2}$	Yes	65	LP							36¢
Helper	8	3	Yes	1	L	Assembler	8	$\frac{1}{2}$	Yes	40	LP							-
						Common Labor	8	2	Yes	10	L							60¢
						Moulder	8	1	No	38	LA							
						Mechanic	8	1	Yes	3	LA							
						Punch Press Operator	8	1	Yes	3	L							
						Screw Mach. Operator	8	1	Yes	2	L							
						Helper (Struct. Steel)	8	1	Yes	16	L							
						Machinist	8	$\frac{1}{2}$ -4	Yes	37	LAP	Department Foreman	8	$\frac{1}{2}$	Yes	10	P	
						Tool Maker	8	1-3	Y-N	16	LP							61¢
						Moulder	8	$\frac{1}{2}$	Yes	2	L							-
						Skilled (Struct. Steel)	8	2	Yes	13	L							80¢
						Asst. Foreman	8	12	No	15	LP	Foreman	12	3	No	1	L	81¢
						Foreman	Tech.	12	No	1	L							-
																		\$1.00
												Sales Manager	Tech.	12	No	1	LPO	
												Head Engineer	Tech.	12	No	1	LPO	1.01
												Office Manager	Tech.	12	No	1	LPO	&
												Foreman	8-12	6-12	No	3	LPO	Up
												Shop Superintendent	Tech.	3-6	Yes	3	P	
												Manager	12-16	1-12	No	9	O	
TOTAL				115						280						29		

Chart No. III.

Employment Data -- Pay Roll Jobs

METAL

INTERPRETATION:

There are 424 people employed in this trade, 115 of whom entered the industry between the ages of 16 and 20 years, 280 between 21 and 25 years, and 29 when over 25 years of age.

In the first wage group, there are 71 individuals receiving less than 36¢ per hour, 60 of whom entered the industry under 21 years of age and the remaining 11 between the ages of 21 and 25 years.

In the second wage group, we find 240 individuals listed who receive wages ranging from 36¢ to 60¢ per hour, 55 of whom entered the industry when under 21 years of age and the remaining 185 between 21 and 25 years of age.

In the third wage group, we find 78 individuals listed who receive wages ranging from 61¢ to 80¢ per hour. Of the 78 individuals listed, 68 entered the industry between the ages of 21 and 25 years, and the remaining 10 were over 25 years of age.

In the fourth wage group, we find 17 individuals listed, who receive wages ranging from 81¢ to \$1.00 per hour. Of the 17 individuals listed, 16 of them entered the industry between the ages of 21 and 25 years, while one was over 25 years of age.

In the fifth or last wage group, there are 18 individuals listed who receive wages ranging from \$1.01 per hour and up. The higher wage level is indefinite as most of the individuals listed are owners or managers of the business and we were unable to obtain more definite information. These individuals entered the industry when over 25 years of age.

The labor supply is not adequate in some cases, especially in the managerial pay roll jobs, and is secured locally, through the schools, through promotion, ownership of the business and apprenticeship. The amount of time required to learn the jobs varies greatly.

CONCLUSION:

This chart shows very clearly that 115 or 27 percent of the total number employed are working at jobs that are available to workers under 21 years of age, the majority of which are semi-skilled. There are 280 or 66 percent of the total number employed working at jobs which are open to workers between the ages of 21 and 25 years, of which 132 or 47 percent are skilled pay roll jobs. The lines of promotion and chances for advancement are clearly shown, commencing with the apprentice, serving 36 or 48 months, then becoming, respectively, a journeyman, assistant foreman, department foreman, foreman, superintendent, and finally manager. This chart indicates that the industry does not encourage hiring young workers except in a few pay roll

jobs and then only at a low wage. One of the reasons for this situation is the training required of its skilled workmen. In studying the labor supply for these different pay roll jobs, one cannot help but notice that the supply is not adequate in a great number of pay roll jobs where skilled labor is required. This indicates that it is hard to secure adequate skilled workmen and it is this field that the part-time school should place a great deal of its emphasis on, i.e., training on the job itself for gaining efficiency in it, training for promotion to next higher job, and training for entrance into the job by encouraging an apprenticeship system.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the METAL Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. Carlton Mauthe - Demountable Typewriter Co. - Employee

2. W. E. Rutz - Giddings & Lewis Machine Tool Co. - Supt.

3. Al. L. Horr - Vulcan Mfg. Co. - Secy.-Treas.

4. H. A. Michler - The Michler Co. - President

Chart No. 1
General Employment Data
PAINTING & DECORATING

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Roate Decorating Co.	Painting & Decorating	14	2	1	Yes
Thomsen Decorating Co.	Painting & Decorating	9	3	1	Yes
Thresher-Huber Dec. Co.	Painting & Decorating	18	2	1	Yes
H. J. Thiede Co.	Painting & Decorating	8	1	0	Yes
A. Hauer & Son	Painting & Decorating	11	1	1	Yes
Total		60	9	4	

Chart No. I.

General Employment Data

PAINTING AND DECORATING

INTERPRETATION:

Analysis of this chart shows that 5 firms were studied. All of them are in the painting and decorating business. These 5 firms employ a total of 73 men, women, and apprentices, of whom 60 are men, 9 are women, and 4 are apprentices. Every firm indicated that there were possibilities for the school to supplement the training given in industry for their employees.

CONCLUSION:

This chart shows that the employers have the future of the trade in mind by the employment of several apprentices and also because they feel the school could aid them in the training of their employees. There should be more apprentices employed in proportion to the number of journeymen. The ratio of the number of apprentices to journeymen has been considered and adjusted since this study was made. The Vocational School has also materially assisted in training the journeymen by organizing an evening trade extension class for journeymen painters.

Chart No. II
Employment Data - Pay Roll Classifications
PAINTING & DECORATING

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	9	Over 25 Years	8-12 Grade	Over \$1.00 Indef.	3 - 12	No	OPL
Skilled Labor	50	21-25 Years	8-12 Grade	61¢ - \$1.00	3	Yes No	PLA
Semi-skilled Labor	4	16-25 Years & Over	8-12 Grade	16¢-60¢	2 - 4	Yes	L
Apprentice Common Labor	4	16-20 Years	8-12 Grade	16¢-35¢	36	No	L
Clerical	6	16-20 Years	12th Grade	16¢-60¢	1 - 2	Yes No	S
Total	73	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

PAINTING AND DECORATING

INTERPRETATION:

This chart shows 9 people listed under Managerial classification with a total of 73 employed. A minimum entrance age of over 25 years is required of each individual, with a minimum educational requirement for the group of an eighth grade or a high school education. The wages range over \$1.00 per hour. In some cases this is rather indefinite in that there are several owners listed in this group, and we could not secure more definite information from them. From 3 months to 12 months is considered necessary to learn the job. The labor supply is not always adequate and is secured locally, through promotion, or by ownership of the business.

Under Skilled Labor, we find 50 individuals having a minimum entrance age of 21 to 25 years and a minimum educational requirement for the group of an eighth grade or a high school education. The wages paid this group range from 61¢ to \$1.00 and 3 months is considered necessary to learn the job. The labor supply is not adequate in all cases and is secured either locally, through promotion, or the apprenticeship system.

Under Semi-skilled Labor, we find 4 individuals having a minimum entrance age of 16 to 25 years and over,

and a minimum educational requirement for the group of an eighth grade or a high school education. The wages range from 16¢ to 60¢ an hour, and from 2 months to 4 months is considered necessary to learn the job. The labor supply is adequate and is secured locally.

Under Apprentice, we find 4 individuals having a minimum entrance age of 16 to 20 years and either an eighth grade or a high school education. The wages range from 16¢ to 35¢ an hour, and 3 years is considered necessary to learn the job. The labor supply is not adequate and is secured locally.

There is no one employed under the Common Labor classification in this trade.

Under Clerical classification, we find 6 individuals listed having a minimum entrance age requirement of 16 to 20 years and a high school education. The wages range from 16¢ to 60¢ an hour, and from 1 month to 2 months is considered necessary to learn the job. The labor supply is not adequate in all cases and is secured through the schools.

CONCLUSION:

In comparing this chart with similar charts from other trades and industries, one is lead to believe that the higher wages paid skilled labor is due, in part, to the emphasis placed on the learning period. An apprentice spends 3 years learning the trade. The fact that common

labor is not employed in this trade is also another indication that this is a skilled trade and that training for entrance into it is necessary. The ratio between the number of journeymen and apprentices employed indicates that either employers are not as yet sold on the apprenticeship training scheme in so far as their particular firm is concerned, or that it does not pay to train them, or it might indicate their inability to find the right boys to learn the trade. It may be, too, that there are too many small shops and some of these shops are not busy the year around, thus making it impossible to hire an apprentice. The fact that the labor supply for all but the semi-skilled group is not adequate is also an indication of a scarcity of trained workers. This situation has been materially helped since the Part-Time School has started trade extension classes for apprentices and journeymen and an all day commercial course for high school graduates.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
PAINTING & DECORATING

Minimum Entrance Age 16 to 20 years	Minimum Entrance Age 21 to 25 years					Minimum Entrance Age Above 25 years					Wage Group					
	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor
Art Department	12	3	No	1	L											16¢
Apprentice	8-12	36	No	4	LS											-
Bookkeeper	12	1	Yes	1	S											35¢
Clerical	12	2	No	4	S											
Bookkeeper Helper	12	2	No	1	S					Shop Man	8	3	Yes	1	L	36¢
	8	2-4	Yes	2	L											-
						Painter & Decorator	8	2-3	Y-N	13	LAP					61¢
																-
						Painter & Decorator	8-12	3	No	37	LAP					81¢
																-
										Manager	8-12	12	No	8	O	\$1.00
										Clerical & Office	8-12	12	No	1	OP	\$1.01 & Up
										Manager						
TOTAL				13										10		

Chart No. III.

Employment Data -- Pay Roll Jobs

PAINTING AND DECORATING

INTERPRETATION:

There are 73 individuals employed in this trade, 13 of whom entered the industry between the ages of 16 and 20 years, 50 between 21 and 25 years, and 10 entered when over 25 years of age.

In the first wage group there are 10 individuals receiving less than 35¢ per hour, all of whom entered the industry under 21 years of age.

In the second wage group, we find 4 individuals listed who receive wages ranging from 36¢ to 60¢ per hour, 3 of whom entered the industry between 16 and 20 years of age and the other one when over 25 years of age.

In the third wage group, we find 13 individuals listed who receive wages ranging from 61¢ to 80¢ per hour. All entered the industry between 21 and 25 years of age.

In the fourth wage group, we find 37 individuals listed who receive wages ranging from 81¢ to \$1.00 per hour. All of these individuals entered the industry between 21 and 25 years of age.

In the fifth or last wage group, there are 9 individuals listed, and they receive wages ranging from \$1.01 per hour and over. The higher wage level is indefinite, as nearly all the individuals listed are owners of

the business, and were not able to give us more definite information. All were over 25 years of age when they entered.

The labor supply is not adequate in most cases and is secured through the schools, apprenticeship system, promotion, locally, or ownership of business. All clerical positions require a high school education as do some of the apprentices, journeymen, and manager positions.

CONCLUSION:

This chart brings out very clearly the fact that there are only a few different pay roll jobs, and also shows the line of promotion and chances for advancement. One enters the trade through the apprenticeship, serves 3 years learning the trade and then jumps to the journeyman's classification where he stays, unless he becomes an owner of the business. This chart also indicates that without training and experience one can not get very far in this trade.

It is noteworthy to mention here that the labor supply in this trade is not adequate. Employers, while being interviewed, emphasized the fact that there was a lack of competent journeymen, but there was also an abundance of half trained mechanics or so called brush hands. The Vocational School has established an evening trade extension class for these men and has materially assisted in correcting this inadequate labor supply.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the PAINTING & DECORATING Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. Bert Hauer - Albert Hauer & Son - Vice-President

2. H. J. Thiede - Thiede Decorating Co. - Owner

3. M. G. Huber - Thresher-Huber Decorating Co. - Secy.

4. Raymond Wiechman - Thresher-Huber Decorating Co. -

Employee.

Chart No. 1
General Employment Data
PLUMBING

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
W. M. Bresnahan	Plumbing & Heating	5	0	0	Yes
F. E. Fenner & Son	Plumbing & Heating	4	1	1	Yes
D. Ahern & Son	Plumbing & Heating	8	0	0	Yes
John Dugan	Plumbing & Heating	5	1	0	Yes
J. F. Ahern Co.	Plumbing & Heating	28	1	2	Yes
John P. Mc Coy	Plumbing & Heating	7	0	1	Yes
John W. Trummer	Plumbing & Heating	3	0	0	Yes
Total		60	3	4	

Chart No. I.

General Employment Data

PLUMBING

INTERPRETATION:

An analysis of this chart shows that 7 firms were studied. All of them are in the plumbing and steam fitting business. These 7 firms employ a total of 67 men, women, and apprentices, of whom 60 are men, 3 are women and 4 are apprentices. Every firm indicated that there were possibilities for the school to supplement the training given in industry for their employees.

CONCLUSION:

This chart shows that the employers have the future of the trade in mind by the employment of several apprentices, and also because they feel the school could aid in the training of their employees. There should be more apprentices employed in proportion to the number of journeymen. The writer wishes to state that since this survey was taken, this ratio of the number of apprentices to journeymen has been considered and adjusted, and more employers have put on apprentices. This changed situation is due, in a large measure, to the efforts of the Vocational School in organizing a plumbing department in school and offering training to the journeymen and apprentices, and education of the employers as to the benefits of such training.

Chart No. II
Employment Data - Pay Roll Classifications
PLUMBING

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply	
Managerial	14	Over 25 Years	8-12 Grade	\$1.01 & Up Indef.	3-10	Yes	OPL	
Skilled Labor	23	21-25 Years	8th Grade	\$1.01 & Up	5	Yes	LA	
Semi-skilled Labor	9	16-25 Years	8th Grade	36¢-80¢	$\frac{1}{2}$	Yes	L	
Apprentice	4	16-20 Years	8th Grade	16¢-35¢	60	Yes	LS	
Common Labor	10	16-25 Years & Over	6-8 Grade	16¢-60¢	-	Yes	L	
Clerical	7	16-25 Years & Over	10-12	16¢-80¢	$\frac{1}{2}$ - 2	Yes	LS	
Total	67	Legend:	O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

PLUMBING

INTERPRETATION:

This chart shows 14 people listed under Managerial classification out of a total of 67 employed. A minimum entrance age of over 25 years is required of each individual, with a minimum educational requirement for the group of an eighth grade or high school education. The wages range from \$1.01 per hour and up. In some cases this is rather indefinite in that there are several owners listed in this group and we could not secure more definite information from them. From 3 months to 10 months is considered the minimum amount of time to learn the job. The labor supply is adequate and is secured locally, through promotion or by ownership of the business.

Under Skilled Labor, we find 23 individuals having a minimum entrance age of 21 to 25 years and an eighth grade educational requirement. The wages paid this group are more than \$1.00 per hour. This amount is set for a season by agreement between employers and employees. Five months is considered necessary to become efficient on the job. The labor supply is adequate and is secured either locally or through the apprenticeship system.

Under Semi-skilled Labor, we find 9 individuals having a minimum entrance age of 16 to 25 years and an

eighth grade educational requirement. The wages range from 36¢ to 80¢ per hour and up to 2 weeks is necessary to learn the job. The labor supply is adequate and is secured locally.

Under Apprentice, we find 4 individuals having a minimum entrance age of 16 to 25 years and an eighth grade educational requirement. The wages range from 16¢ to 35¢ per hour, and 5 years is considered necessary to learn the job. The labor supply is adequate and is secured either locally or through the schools.

Under Common Labor, we find 10 individuals having a minimum entrance age of 16 to 25 years and over and a sixth to eighth grade educational requirement. The wages paid this group range from 16¢ to 60¢ per hour, and no required amount of time is given to learn the job. The labor supply is adequate and is secured locally.

Under Clerical classification, we find 7 individuals having a minimum entrance age of 16 to 25 years and over and a tenth or twelfth grade educational requirement. The wages paid this group range from 16¢ to 80¢ per hour, and from $\frac{1}{2}$ month to 2 months is required to learn the job. The labor supply is adequate and is secured either locally or through the schools.

CONCLUSION:

Nearly 30 percent of the total number employed require very little or no specific training to learn their jobs.

These individuals are found in the semi-skilled and common labor groups. It is interesting to note that the number employed in these two groups and the apprentice group just equals the number of skilled labor.

In comparing this chart with similar charts from other trades and industries, one is lead to believe that the higher wages paid skilled labor in this trade is due, in part, to the long period of training. An apprentice spends 5 years learning the trade. Since this information was gathered, a change has been made in the pay roll classification of this trade. Now we do not find any semi-skilled labor or helpers. The Vocational School has organized a special class for this group of semi-skilled workers and by attendance at the class, several of these men have since become journeymen. The remaining men are attending school and very shortly there will be no such classification as semi-skilled labor.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
 PLUMBING

Minimum Entrance Age 16 to 20 years						Minimum Entrance Age 21 to 25 years						Minimum Entrance Age Above 25 years						Wage Group
Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		
Apprentice	8	60	Yes	4	LS													16¢
Clerical	12	3	Yes	1	LS													-
																		35¢
Common Labor	6	-	Yes	7	L	Common Labor	8	-	Yes	1	L	Common Labor	8	-	Yes	2	L	36¢
Clerical	10	1-2	Yes	3	L	Clerical	12	1-2	Yes	1	L	Clerical	10	3	Yes	1	L	-
Helper	8	1	Yes	8	L													60¢
Clerical	10	2	Yes	1	L	Helper	8	-	Yes	1	L							61¢
																		-
																		81¢
																		\$1.00
						Journeyman	8	5	Yes	23	LA	Proprietor & Master Foreman	8-12 12	3-10 5	Yes Yes	10 4	O LP	\$1.01 & Up
TOTAL				24					26						17			

Chart No. III.

Employment Data -- Pay Roll Jobs

PLUMBING

INTERPRETATION:

There are 67 people employed in this industry, 24 of whom entered the industry between the ages of 16 and 20 years, 26 between the ages of 21 and 25 years, and 17 entered when over 25 years of age.

In the first wage group, there are 5 individuals receiving less than 36¢ per hour, all of whom entered the industry under 21 years of age.

In the second wage group, 23 individuals receive wages ranging from 36¢ to 60¢ per hour. Of these, 18 entered between the ages of 16 and 20 years, 2 between 21 and 25 years, and the remaining 3 were over 25 years of age.

In the third wage group, 2 individuals receive wages ranging from 61¢ to 80¢ per hour. Of these, one entered while under 21 years of age and the remaining one was between 21 and 25 years of age.

There is no one listed in the fourth wage group.

In the fifth or last wage group, there are 37 individuals listed, receiving wages ranging from \$1.01 per hour and up. The higher wage level is indefinite as some of these individuals are owners of the business and we were unable to obtain further information. Twenty-three of these individuals entered the industry between the ages of

21 and 25 years and the other 14 were over 25 years of age.

The labor supply is adequate in all cases and is secured through the apprenticeship plan, schools, locally, promotion, or ownership of business. The educational requirement ranges from eighth grade through high school, and the time required to learn the job varies greatly commencing with no specific time given, up to 12 months, depending on the job. The apprentice requires 60 months to learn the job.

CONCLUSION:

This chart brings out very clearly the fact that there are only a few different pay roll jobs. This is due largely to the Wisconsin State Board of Health's interest in the trade, regulating the training, setting up regulations and licensing all workers in this field. Since this information was collected, the helpers or semi-skilled classification has been eliminated by law, thus eliminating one more classification. The chart also shows the line of promotion and chances for advancement. One enters the trade through an apprenticeship, serves 5 years learning the trade and then jumps to the journeyman classification. If he has the necessary educational background, he is in line for a foreman's position. Considering the length of apprenticeship training and the wages paid journeymen, this is one of the most lucrative employments in our city.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the PLUMBING Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. Clarence E. Fenner - F. E. Fenner & Son - Manager

2. J. E. Ahern - John F. Ahern Co. - Secy. - Treas.

3. Peter J. Karl - Plumbing & Heating - Owner

4. Joseph Lepine - T. Lepine - Employee

Chart No. 1
General Employment Data
POWER MACHINE

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Fond du Lac Shirt & Overall Company	Shirts & Overalls	10	80	0	Yes
Fond du Lac Tent & Awning Co.	Tents & Awnings & Canvas Specialties	22	20	0	Yes-No
Menzies Shoe Co.	Shoes	348	122	0	No
A. R. Overall Co.	Overalls	3	16	0	Yes
Ross Glove Co.	Gloves	1	21	0	Yes
Total		384	259	0	

Chart No. I.
General Employment Data
POWER MACHINE

INTERPRETATION:

An analysis of this chart shows 5 firms were studied. These 5 firms are engaged, respectively, in the following: Manufacturing of shirts and overalls; tents, awnings, and canvas specialties; shoes; overalls; and gloves. They employ a total of 643 men and women, of whom 384 are men and 259 are women.

It is interesting to note that the firm employing 73 percent of the workers stated that the school could not assist in the training of their employees. This industry does not employ any apprentices.

CONCLUSION:

This chart indicates that there is no systematic method used in training their skilled labor because of the lack of any apprentices employed. In view of this, it would seem that the school should cooperate with this industry with the aim of setting up a definite training program for their employees. This could be brought about by a thorough job analysis of the industry, the results to be gone over with a committee from the industry. The results from such a study would indicate the type of training needed and also if an apprenticeship program would be advisable as well as desirable.

Chart No. II
Employment Data - Pay Roll Classifications

POWER MACHINE

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	23	16-25 Years & Over	8-12 Grade	36¢ - \$1.00 & Up	1 - 10	Yes	OPL
Skilled Labor	312	16-25 Years & Over	8-10 Grade	16¢-80¢	1 - 5	Yes	PL
Semi-skilled Labor	273	16-20 Years	8th Grade	16¢-80¢	$\frac{1}{4}$ - 3	Yes	L
Common Labor	18	16-25 Years & Over	8th Grade	16¢-35¢	0 - 2 Days	Yes	L
Clerical	17	16-25 Years & Over	8-12 Grade	16¢-80¢	$\frac{1}{2}$ - 4	Yes	LS
Total	643	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

POWER MACHINE

INTERPRETATION:

This chart shows that there are 23 individuals listed under Managerial classification out of a total of 643. The minimum entrance age is 16 to 25 years and over, with a minimum educational requirement for the group of an eighth grade or high school education. The wages range from 36¢ to \$1.00 per hour and up. In some cases this is rather indefinite, in that there are several owners listed in the group and we could not secure more definite information. From 1 month to 10 months is considered necessary to learn the job. The labor supply is adequate and is secured locally, through promotion, or ownership of the business.

Under Skilled Labor, we find 312 individuals having a minimum entrance age of from 16 to 25 years and over and an eighth grade or high school educational background. The wages paid this group range from 16¢ to 80¢ per hour. From 1 month to 5 months is considered adequate to learn the job. The labor supply is adequate and is secured locally or through promotion.

Under Semi-skilled Labor, we find 273 individuals having a minimum entrance age of from 16 to 20 years and an eighth grade education. The wages paid this group

range from 16¢ to 80¢ per hour and from $\frac{1}{4}$ month to 3 months is considered adequate to learn the job. The labor supply is adequate and is secured locally.

Under Common Labor, we find 18 individuals having a minimum entrance age from 16 to 25 years and over and an eighth grade educational requirement. The wages paid this group range from 16¢ to 35¢ per hour and up to 2 days is specified to learn the job. The labor supply is adequate in all cases and is secured locally.

Under Clerical help, we find 17 individuals having a minimum entrance age of 16 to 25 years and over and an eighth grade or high school educational requirement. The wages range from 16¢ to 80¢ per hour and from $\frac{1}{2}$ month to 4 months is considered necessary to learn the job. The labor supply is adequate in all cases and is secured locally or through the schools.

CONCLUSION:

One of the striking situations on this chart is the large number of skilled and semi-skilled labor employed in comparison to the number employed in the other pay roll classifications. Out of 643 individuals employed, 312 or 48 percent are skilled labor and 273 or 42 percent are semi-skilled labor. Only 3 percent of the total are employed in a supervisory capacity. The students of the Vocational School have both age and educational requirements for entrance into the different pay roll jobs. It seems to be the

policy of this industry to promote its semi-skilled labor to skilled and then to the managerial classification without any regular systematic apprentice training program. A study of the training methods and requirements of this industry should be made by the school, in cooperation with the employers, to see if a more efficient way to train their help could be found in which the school could be of some assistance to the industry in their training program. The Vocational School should work very closely with this industry as a means of placement of their students and as a source of labor for the industry. This relationship has not been very close in the past.

Chart No. III.

Employment Data -- Pay Roll Jobs

POWER MACHINE

INTERPRETATION:

There are 644 people employed in this industry, 621 of whom entered the industry between the ages of 16 and 20 years, and the remaining 22 when over 25 years of age.

In the first wage group there are 267 individuals receiving less than 36¢ per hour, 260 of whom entered the industry under 21 years of age, and the remaining 7 were over 25 years of age.

In the second wage group, we find 346 individuals listed who receive wages ranging from 36¢ to 60¢ per hour, 339 of whom entered the industry under 21 years of age, and the remaining 7 were over 25 years of age.

In the third wage group, we find 15 individuals listed who received wages ranging from 61¢ to 80¢ per hour, 11 of whom entered when under 21 years of age, and the remaining 4 were over 25 years of age.

In the fourth wage group, there is one individual listed who is over 25 years of age when he entered, who receives wages ranging from 81¢ to \$1.00 per hour.

In the fifth, or last wage group, there are 14 individuals listed, and they received wages ranging from \$1.01 per hour and up. The higher wage level was indefinite as some of the individuals listed are owners of the

business and we were not able to obtain this information. Of these individuals 11 entered when under 21 years of age, and the remaining 3 were over 25 years of age.

The labor supply is adequate in all cases, and is secured either locally, through promotion, ownership of the business, or the schools. The amount of time necessary to learn the jobs varies greatly with the type of job, and the required education varies from eighth grade through high school.

CONCLUSION:

This chart shows that 631 or 96 percent of the total number employed are working at jobs that are available to workers under 21 years of age, of which 599 or 93 percent are in the first 2 wage groups. The most striking situation is the fact that there are no pay roll jobs listed with an entrance age of 21 to 25 years which seems to indicate that a short training period is required for the skilled labor. One might also draw the conclusion that the turnover is rather high because there are only a few jobs available to persons over 25 years, most of these jobs being managerial in nature.

Verification Form

The undersigned, after thoroughly going over the data collected by O.J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the POWER MACHINE Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

- | | | |
|----|--|-----------|
| 1. | <u>Geo. W. Kuehnel - Canvas Products Corp. - Supt.</u> | |
| 2. | <u>T. A. Luttropp - Ross Glove Co. - Manager</u> | |
| 3. | <u>J. E. Schultz - Fond du Lac Shirt & Overall Co. -</u> | |
| 4. | | President |

Chart No. 1
General Employment Data
PRINTING

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Commonwealth Reporter	Daily Newspaper	107	5	4	Yes-No
Badger Printing Co.	Job Printing	2	0	0	Yes
Waggoner Printing Co.	Job Printing	1	0	0	Yes
Radford Palmer Printing Co.	Job Printing	1	0	1	Yes-No
K. & K. Print Shop	Job Printing	3	2	0	No
Courier Printing Co.	Job Printing	3	1	0	Yes
P. B. Haber Printing Co.	Job Printing	9	2	3	Yes
Berndt Printing Co.	Job Printing	16	4	2	Yes
Total		142	14	10	

Chart No. I.

General Employment Data

PRINTING

INTERPRETATION:

An analysis of this chart shows that 8 firms were studied. With one exception, all of them do job printing, the other one prints the daily newspaper. These 8 firms employ a total of 166 men and boys, women and apprentices; of whom 142 are men and young boys, 14 are women, and 10 are apprentices.

An interesting point brought out is the fact that several concerns indicated that there was no training the school could do to supplement the training given in industry. See Printing Chart No. III, page 137, for explanation of employment of young boys.

CONCLUSION:

In reference to the training the school could give the employees, the writer wishes to state that the partially negative answer given by some firms is due primarily to the size of the firms studied and the particular way in which the business is conducted. The majority of employers have a training program for apprentices. Others would if the size of their shop would warrant it. The employment of apprentices is an indication of necessary special training.

Chart No. II
Employment Data - Pay Roll Classifications
PRINTING

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	15	Over 25 Years	8-12 Grade Tech.	81¢ - \$1.00 & Up Indef.	7 - 12	Yes No	OPL
Skilled Labor	39	21-25 Years & Over	8-12 Grade Tech.	61¢ - \$1.00	3 - 6	Yes	LAS
Semi-skilled Labor	94	12-20 Years	6-8 Grade	16¢-60¢	1 - 2	Yes	LS
Apprentice	10	16-20 Years	8th Grade	16¢-35¢	48 - 60	Yes	LS
Common Labor	2	16-20 Years	8th Grade	16¢-35¢	-	Yes	L
Clerical	6	16-20 Years	12th Grade	16¢-60¢	$\frac{1}{2}$ - 2	Yes	LS
Total	166	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

PRINTING

INTERPRETATION:

This chart shows 15 people listed under Managerial classification out of a total of 166 employed. A minimum entrance age of over 25 years is required of each individual, with a minimum educational requirement for the group of an eighth grade, high school, or technical education. The wages range from 81¢ to \$1.00 per hour and up. The upper limit is rather indefinite in that most of the individuals in this class are owners of their business and would not give us more definite information. From 7 months to 12 months is considered necessary to learn the job. The labor supply is not adequate in some cases and is secured locally, through promotion, or ownership of the business.

Under Skilled Labor, we find 39 individuals having a minimum entrance age of 21 to 25 years and over, and either an eighth grade, high school, or a technical education. The wages range from 61¢ to \$1.00 per hour, and from 3 months to 6 months is necessary to learn the job. The labor supply is adequate and is secured locally, by the apprenticeship system, or through the schools.

Under Semi-skilled Labor, we find 94 individuals listed having a minimum entrance age of 12 to 20 years, and at least a sixth grade education. The wages range from 16¢

to 60¢ per hour and from 1 month to 2 months is considered necessary to learn the job. The labor supply is adequate and is secured locally or through the schools.

Under Apprentice, we find 10 individuals listed, having a minimum entrance age of 16 to 20 years and an eighth grade education. The wages range from 16¢ to 35¢ per hour, and from 4 years to 5 years is considered necessary to learn the job. The labor supply is adequate and is secured locally or through the schools.

Under Common Labor, we find 2 individuals having a minimum entrance age of 16 to 20 years and an eighth grade education. The wages range from 16¢ to 35¢ per hour. No time is specified to learn the job. The labor supply is adequate and is secured locally.

Under Clerical classification, we find 6 individuals having a minimum entrance age of 16 to 20 years with a high school education. The wages range from 16¢ to 60¢ per hour, and from $\frac{1}{2}$ month to 2 months is required to learn the job. The labor supply is adequate and is secured locally or through the schools.

CONCLUSION:

In comparing this chart with similar charts from other trades and industries, one is lead to believe that the higher wages paid skilled labor in this trade is due in part, to the long periods of learning. An apprentice spends from 4 years to 5 years learning the trade. The

ratio of the number of apprentices to skilled labor employed is due, very largely, to the fact that this survey studies more than one trade. In other words, we have several trades listed under the general heading of Printing. All of these trades with the exception of pressmen are unionized and the ratio between the number of journeymen to apprentices, as well as the wages paid as agreed upon between employer and the union, is still maintained.

This brings out the fact very forcibly that the printing industry is highly skilled and somewhat specialized. The line of promotion and chances for advancement are nearly unlimited. The wages paid in all classifications are commensurate with the entrance requirements.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
 PRINTING

Minimum Entrance Age 12 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group	
Mail Room	6	2	Yes	8	S														
Carrier Boys	6	2	Yes	80	S														
Apprentice	8	48	Yes	5	LS														16¢
Common Labor	8	-	Yes	2	L														-
Clerical	12	6	Yes	2	S														35¢
Pressman Apprentice	8	60	Yes	4	L														
Bindery Apprentice	8	60	Yes	1	L														
Delivery Boy	8	1	Yes	1	LS														
Bindery	8	1	Yes	3	L														
Stenotypist	8	2	Yes	2	-							Journeyman	12	4-6	Yes	1	L		36¢
Cashier	12	2	Yes	1	LS														-
Cost Clerk	12	2	Yes	1	L														60¢
Bookkeeper	12	2	Yes	1	LS														
Stenographer	12	2	Yes	1	LS														
						Journeyman	8-9	5	Yes	6	LA	Journeyman	12	3	Yes	1	L		61¢
						Compositor	8	5	Yes	4	L								-
						Pressman	8	5	Yes	9	L								80¢
						Bindery	8	5	Yes	1	L								
						Compositor	Tech.	5	Yes	3	LAS	Foreman	8-12	7-10	Yes	2	LP		81¢
						Linotype Man	Tech.	5	Yes	10	LAS								-
						Pressman	Tech.	5	Yes	1	LAS								
						Comp. & Linotype	8	5	Yes	3	LA								\$1.00
												Foreman	Tech.	8	No	2	LP		
												Superintendent	Tech.	8	No	2	LP	\$1.01	
												Manager	Tech.	4-12	No	8	OP	&	
												Artist	8Ind.	No	1	L	Up		
TOTAL				112						37						17			

Chart No. III.

Employment Data -- Pay Roll Jobs

PRINTING

INTERPRETATION:

There are 166 people employed in this industry, 112 of whom entered the industry under the age of 20 years, 37 between 21 and 25 years, and 17 when over 25 years of age.

In the first wage group, there are 106 individuals receiving less than 36¢ per hour, all of whom entered the industry under 21 years of age.

In the second wage group, we find 7 individuals who receive wages ranging from 36¢ to 60¢ per hour, 6 of whom were under 21 years of age when they entered the industry, while the remaining one was over 25 years of age.

In the third wage group, we find 21 individuals listed who receive wages ranging from 61¢ to 80¢ per hour, 20 of whom entered the industry between the ages of 21 and 25 years, while the other one was over 25 years of age.

In the fourth wage group, we find 19 individuals who receive wages ranging from 81¢ to \$1.00 per hour, 17 of whom entered the industry between the ages of 21 and 25 years of age, while the other two were over 25 years of age.

The fifth or last pay roll group has 13 individuals listed who receive wages ranging from \$1.00 per hour

and up. The upper wage level is indefinite as most of the individuals listed are owners of the business, and we were unable to obtain definite information. All of these individuals were over 25 years of age when they entered.

The labor supply is adequate in all cases except those in the last wage group, and labor is secured locally, through apprenticeship, promotion, ownership of the business, or through the schools. The educational requirements range from sixth grade through high school, with the exception of some of the journeymen and managerial staff where additional technical education is required.

CONCLUSION:

This chart shows very clearly that 112 or 67 percent of the total number employed are working at jobs that are available to workers under 21 years of age. A further study of this fact shows that 88 individuals or 53 percent of the total number employed have a sixth grade educational requirement. The entrance age of these boys is 12 years or over, and they work only after school hours distributing the newspaper. The lines of promotion and chances for advancement are clearly shown, commencing with the apprentices who serve 48 months to 60 months, then become, respectively, journeymen, foremen, superintendents, and managers. This chart indicates that the industry does not encourage the hiring of the younger worker except in a few different pay roll groups and then only at a low wage.

Outside of these few exceptions this is a highly skilled industry and specialized training is required, and the wages paid are in keeping with the entrance requirements.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the PRINTING Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. J. C. Viets - Berndt Printing Co. - Secy.-Treas.

2. Emery Martin - The Reporter Printing Co. - Secy.

3. Karl A. Ackerman - K. & K. Print Shop - President

4. C. E. Bostwick - P. B. Haber Printing Co. - Employee

Chart No. 1
General Employment Data
PUBLIC UTILITY

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Wisconsin Power & Light Company	Gas, Coke, Power, Light, Transportation	167	12	0	Yes
Total		167	12	0	

Chart No. I.

General Employment Data

PUBLIC UTILITY

INTERPRETATION:

An analysis of this chart shows that only one firm was studied. This firm is engaged in the manufacture of gas, coke, power, light, and also conducts bus and electric railway transportation. They employ a total of 179 men and women, of whom 167 are men and 12 are women. There are no apprentices employed, but the school can supplement the training given in this industry.

CONCLUSION:

This chart indicates that there is no systematic method used in training skilled labor because of the lack of apprentices employed. In view of this, it would seem the school should cooperate with this industry to set up a definite training program. This could be brought about by a thorough job analysis of the industry and the results gone over with a committee from the industry. These results would indicate the type of training needed and also whether an apprenticeship program would be advisable as well as desirable.

Since this survey was taken, this industry with the cooperation of the Vocational School has conducted two classes within its organization for the training of its men.

Chart No. II
Employment Data - Pay Roll Classifications
PUBLIC UTILITY

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	27	21-25 Years & Over	8-12 Grade U.	36¢ - \$1.00 & Up Indef.	1 - 12	Yes	PLS
Skilled Labor	66	21-25 Years & Over	8-12 Grade	36¢ - \$1.00	1 - 6	Yes	PL
Semi-skilled Labor	30	21-25 Years & Over	8-12 Grade	16¢-60¢	1 - 6	Yes	PL
Common Labor	38	18-25 Years & Over	8th Grade	36¢-60¢	-	Yes	L
Clerical	18	18-25 Years & Over	12th Grade	16¢-80¢	1 - 6	Yes	LS
Total	179	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications
PUBLIC UTILITYINTERPRETATION:

This chart shows that there are 27 individuals, or 15 percent of the total number employed, listed under Managerial classification out of a total of 179. The minimum entrance age is from 21 to 25 years and over, with a minimum educational requirement for the group of an eighth grade or high school education. In some instances a college education is necessary. The wages range from 36¢ to \$1.00 per hour and up. In a few cases this is rather indefinite because we were not able to secure more exact information. From 1 month to 12 months is considered necessary to learn the job. The labor supply is adequate and is secured locally, through promotion, or through the schools.

Under Skilled Labor, we find 66 individuals listed or 37 percent of the total number employed having a minimum entrance age of 21 to 25 years and over and an eighth grade or high school educational background. The wages paid this group range from 36¢ to \$1.00 per hour. From $\frac{1}{4}$ month to 6 months is considered adequate to learn the job. The labor supply is adequate and is secured locally and through promotion.

Under Semi-Skilled Labor, we find 30 individuals or 16 percent of the total number employed, having a mini-

imum entrance age of 21 or 25 years and over, with an eighth grade or high school educational background. The wages paid this group range from 16¢ to 60¢ per hour, and from 1 month to 6 months is considered adequate to learn the job. The labor supply is adequate and is secured either locally or through promotion.

Under Common Labor, we find 38 individuals or 21 percent of the total number employed, having a minimum entrance age of 18 to 25 years and over, with an eighth grade educational background. The wages paid this group range from 36¢ to 60¢ per hour, and no time is specified to learn the job. The labor supply is adequate and is secured locally.

Under Clerical classification, we find 18 individuals, or 10 percent of the total number employed, having a minimum entrance age of 18 to 25 years and over, and an educational background consisting of at least high school graduation. The wages paid this group range from 16¢ to 80¢ per hour and from 1 month to 6 months is considered necessary to learn the job. The labor supply is adequate and is secured either locally or through the schools.

CONCLUSION:

Although there is no recognized system of apprenticeship training in this industry, the lines of promotion and chances for advancement are very good. One may enter as a common laborer and advance into any of the other classifications by promotion. One is lead to believe that

because of the large number of individuals employed in the managerial and clerical classifications, detail work plays an important part in this industry as does supervision and management.

This industry does not employ any one under the age of 18 years and there are only a few positions that are available to one under 21 years of age. See Conclusion, Public Utility Chart No. III, page 148 for a full explanation of this.

Chart No. III

Employment Data -- Pay Roll Jobs

PUBLIC UTILITY

INTERPRETATION:

There are 179 individuals employed in this industry, 46 or 25 percent of whom entered the industry between the ages of 18 and 21 years, 77 or 43 percent between the ages of 21 and 25 years, and 56 or 32 percent entered when over 25 years of age.

In the first wage group there are 3 individuals receiving less than 36¢ per hour, 2 of whom entered the industry between the ages of 18 and 21 years, and one between 21 and 25 years of age.

In the second wage group there are 150 individuals who receive wages ranging from 36¢ to 60¢ per hour, 40 of whom entered the industry under 21 years of age, 75 between 21 and 25 years, and 35 when over 25 years of age.

In the third wage group there are 8 individuals who receive wages ranging from 61¢ to 80¢ per hour. Seven were over 25 years of age when they entered the industry and one between 21 and 25 years of age.

In the fourth wage group there are 9 individuals who receive wages ranging from 81¢ to \$1.00 per hour, 2 of whom entered the industry between the ages of 16 and 21 years, 2 were between 21 and 25 years of age and 5 were over 25 years of age.

In the fifth or last wage group, there are 8 individuals who receive wages ranging from \$1.01 per hour and up. The upper wage limit is indefinite because we were unable to obtain more information. All these individuals entered the industry when over 25 years of age.

The labor supply is adequate in all cases and is secured locally, through promotion, and through the schools. The amount of time necessary to learn the jobs as well as the educational requirements varies greatly with the type of jobs.

CONCLUSION:

The chances for advancement and promotion in this industry are very good. It is the policy of this industry to promote their common labor to semi-skilled and then to skilled labor and so on, without having any clear cut apprenticeship training scheme. They take their new help in at the lowest paid jobs and promote them as soon as higher positions become available, and when the individual has proven his worth.

This industry does not lend itself to hiring of younger help as is indicated in the numbers employed under the various age groups. There are only a very few different pay roll jobs open to one under 21 years of age. Because of this, one is lead to believe that there is a certain technique or skill necessary to do the jobs in this industry that is not found in the other industries.

This is due to the fact the individual deals more directly with the public and is directly responsible for the product which this industry is manufacturing. In other words, there is a greater responsibility and service demanded of its workmen than in most other industries and a more matured workman is required for that reason.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the PUBLIC UTILITY Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. F. Whitely - Wisconsin Power & Light Co. - Dist. Mgr.

2. Wm. Pomerville - Wisconsin Power & Light Co. -

3. _____ Employee

4. _____

Chart No. 1
General Employment Data
SHEET METAL

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
F. W. Diedrich Co.	Sheet Metal Work	8	1	1	Yes
Brenner Tin Shop	Sheet Metal Work	20	0	2	Yes
McIntyre-McDonald Co.	Sheet Metal Work	10	1	0	Yes
J. E. Burke Co.	Radiator Cabinets & Metal Weather Strips	18	1	0	Yes
Total		56	3	3	

Chart No. I.

General Employment Data

SHEET METAL

INTERPRETATION:

An analysis of this chart shows that 4 firms were studied. Three of them are in a general sheet metal business and the other firm manufactures metal weather strips and radiator cabinets. These 4 firms employ a total of 62 people, of whom 56 are men, 3 are women, and 3 are apprentices. Every firm indicated that there were possibilities for the school to supplement the training given in industry for their employees.

CONCLUSION:

This chart shows that employers of this trade are thinking of the trade's future by employing some apprentices. The number of apprentices does not seem to be sufficient in comparison with the number of men employed. The employers also realize that the school can assist in training their employees. Since this information was gathered, a special class in triangulation was organized in the Vocational School, and the workers in this trade have taken advantage of it to a considerable degree.

Chart No. II
Employment Data - Pay Roll Classifications

SHEET METAL

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	9	Over 25 Years	8-12 Grade	61¢ - \$1.00 & UP Indef.	6 - 12	No	OL
Skilled Labor	30	16-25 Years & Over	8th Grade	36¢-80¢	1 - 12	Yes	LA
Semi-skilled Labor	17	16-20 Years	8th Grade	16¢-80¢	1 - 4	Yes	L
Apprentice COMMON LABOR	3	16-20 Years	8th Grade	16¢-35¢	48	Yes	L
Clerical	3	16-25 Years & Over	12th Grade	16¢-80¢	$\frac{1}{2}$ - 3	Yes	LS
Total	62	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

SHEET METAL

INTERPRETATION:

This chart shows 9 people listed under Managerial classification out of a total of 62 employed. A minimum entrance age of 25 years or over is required of each individual, with a minimum educational requirement for the group of eighth grade or high school education. The wages range from 61¢ to \$1.00 per hour and up. The upper limit is rather indefinite in that most of the individuals in this class are owners of the business, and would not give us more definite information. Six months to 12 months is considered the minimum amount of time to learn the job. In all cases the labor supply is not adequate, and is secured locally or by ownership of the business.

Under Skilled Labor, we find 30 individuals having a minimum entrance age of 16 to 25 years and over, and an eighth grade educational requirement. The wages range from 36¢ to 80¢ per hour, and from 1 month to 12 months is required to learn the job. The labor supply is adequate, and is secured locally or through the apprenticeship system.

Under Semi-skilled Labor, we find 17 individuals having a minimum entrance age of 16 to 20 years, and an eighth grade educational requirement. The wages range

from 16¢ to 80¢ per hour, and from 1 month to 4 months is considered necessary to learn the job. The labor supply is adequate, and is secured locally.

There is no Common Labor employed in this trade.

Under the Apprentice classification, we find 3 individuals employed having a minimum entrance age of 16 to 20 years, with an eighth grade educational requirement. The wages range from 16¢ to 35¢ per hour, and 48 months is considered necessary to learn the job. The labor supply is adequate and is secured locally.

Under Clerical classification, we find 3 individuals listed, having a minimum entrance age of 16 to 25 years and over and a high school educational requirement. The wages range from 16¢ to 80¢ per hour, and from $\frac{1}{2}$ month to 3 months is necessary to learn the job. The labor supply is adequate and is secured locally or through the schools.

CONCLUSION:

This is one of the skilled trades, because of the absolute lack of any common labor being employed and also because 30 individuals or 48 percent of the total number employed are skilled workmen. This being true, one might say that there should be more apprentices employed in proportion to the number of journeymen. The Vocational School should assist in locating apprentices for this trade. As far as education and age are concerned, the Vocational School students have the necessary requirements.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
 SHEET METAL

Minimum Entrance Age 16 to 20 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group
Apprentice Clerical Helper	8 12 8	48 12 2	Yes Yes Yes	3 2 4	LS LS L													16¢ - 35¢
Helper Metal Man	8 8	1 1	Yes Yes	2 5	L L	Mechanic	8	4	Yes	3	L							36¢ - 60¢ 6
Semi-skilled Mechanic Weather Stripper Helper	8 8	4 1	Yes Yes	1 4	L L	Mechanic	8	4	Yes	4	L	Bookkeeper Mechanics Foreman	12 10 8	3 5 9	Yes Yes Yes	1 15 1	L LA L	61¢ - 80¢
Layout Man Weather Stripper	8 8	6-8 12	Yes Yes	1 6	L L													81¢ - \$1.00
Head Painter	8	5	Yes	1	L							Proprietor Manager	-- 8-12	10 6-8	No No	1 7	O O	\$1.01 & Up
TOTAL				30						7						25		

Chart No. III.

Employment Data -- Pay Roll Jobs

SHEET METAL

INTERPRETATION:

There are 62 individuals employed in this trade, 30 of whom entered the industry between the ages of 16 and 20 years, 7 between 21 and 25 years, and 25 entered when over 25 years of age.

In the first wage group, there are 9 individuals receiving less than 36¢ per hour, all of whom entered the industry under 21 years of age.

In the second wage group, we find only 10 individuals receiving wages ranging from 36¢ to 60¢ per hour. Seven of these individuals entered when under 21 years and the remaining 3 were between the ages of 21 and 25 years.

In the third wage group, we find 27 individuals listed who receive wages ranging from 61¢ to 80¢ per hour, 17 of whom entered when over 25 years of age, 4 were between 21 and 25 years, and 5 were under 21 years of age.

In the fourth wage group, we find 7 individuals listed who receive wages ranging from 81¢ to \$1.00 per hour. In all cases these persons entered the industry between 16 and 21 years of age.

In the fifth or last wage group, there are 9 individuals listed receiving wages ranging from \$1.01 per hour and up. The higher wage level is indefinite as all the

individuals listed are owners of the business, and we were unable to obtain more definite information. These individuals are all over 25 years of age upon entrance into the trade.

The labor supply is adequate in all but the managerial classification, and is secured through the schools, apprenticeship training, locally, and ownership of the business.

CONCLUSION:

This chart shows very plainly that this is a skilled trade because there are only a few different pay roll jobs. The line of promotion and chances for advancement are rather limited in that, when one learns the trade and becomes a journeyman, he practically stays in that classification. In order to get into the higher wage group one must practically become the owner of the business. The majority of better paying jobs are open only to those who are over 25 years of age.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the SHEET METAL Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. E. E. Raymer - J. E. Burke Co. - Manager
2. F. W. Diedrich - F. W. Diedrich Co. - President
3. T. P. Brenner - Jacob Brenner Co. - Manager
4. Edw. J. Mac Intyre - Mac Intyre-McDonald Co.-Pres.

Chart No. 1
General Employment Data
WOODWORKING

Firm	Product	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Nuss Lumber Company	Lumber and Mill Work	33	4	0	Yes-No
Combination Door Co.	Screens and Doors	56	0	0	Yes
Northern Casket Co.	Casket Manufacturer	49	31	0	Yes-No
Winnebago Furniture Mfg. Co.	Furniture Manufacturer	67	2	0	No
Sanitary Refrigerator Co.	Refrigerators	137	5	0	No
Fond du Lac Table Mfg. Co.	Tables	51	2	0	Yes
Hutter Construction Co.	Building Contractors	6	4	0	No
Fond du Lac Pattern Works	Patterns	3	0	0	Yes
Rosenthal Woodworking Co.	Lumber Mill Work	17	1	0	No
Total		419	49	0	

Chart No. I.

General Employment Data

WOODWORKING

INTERPRETATION:

An analysis of this chart shows that 9 firms were studied. Of the 9 firms studied, 2 of them dealt in lumber and millwork. The remaining 7 are engaged, respectively, in the following: Screens and combination door, casket, furniture, table, and refrigerator manufacturing, pattern making, and building contracting. These 9 firms employ a total of 468 men and women, of whom 419 are men and 49 are women.

An interesting point brought out is the fact that the firms indicated, as a rule, that there was little training this school could do to supplement the training given in their industry.

CONCLUSION:

This chart indicates that there is very little skilled labor necessary in the firms studied. The employees in this trade are either well trained for their respective jobs, or very little training is needed after they get on the job. Perhaps this partial negative reaction toward training is due to the inability of the school to assist in training woodworkers and might also account for the fact that there are no apprentices employed. Steps should be taken by the school, with the cooperation of the

employers, to make a detailed study of the woodworkers' training requirements with the idea in mind of setting up a training program if found advisable.

Chart No. II
Employment Data - Pay Roll Classifications

WOODWORKING

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	40	16-25 Years & Over	8-16 Grade	36¢ - \$1.00 & Up	$\frac{3}{4}$ - 10 Indef.	Yes No	OPL
Skilled Labor	35	16-25 Years & Over	8-12 Grade	16¢-80¢	2 - 8	Yes	PL
Semi-skilled Labor	319	16-25 Years & Over	8th Grade	16¢-60¢	$\frac{1}{4}$ - 5	Yes No	PL
Common Labor	51	16-25 Years & Over	8th Grade	16¢-60¢	0 - 1 Day	Yes	L
Clerical	23	16-25 Years & Over	8-12 Grade	16¢-80¢	1 - 4	Yes	LS
Total	468	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

WOODWORKING

INTERPRETATION:

This chart shows that there are 40 individuals listed under Managerial classification out of a total of 468. The minimum entrance age is 16 to 25 years and over, with a minimum educational requirement for the group of eighth grade and up, even so far as through college. The wages range from 36¢ to \$1.00 per hour and up. In some cases this is rather indefinite, in that there are several owners listed in this group, and we could not secure more definite information. From $\frac{5}{4}$ month to 10 months is considered the minimum amount of time to learn the job. In some cases this question could not be answered definitely. The labor supply was not adequate in some instances and was secured either locally, through promotion, or ownership of the business.

Under Skilled Labor, we find 35 individuals having a minimum entrance age of from 16 to 25 years and over, and an eighth grade or high school educational background. The wages paid this group range from 16¢ to 80¢ per hour. From 2 months to 8 months is considered adequate to learn the job. The labor supply is adequate and is secured either locally or through promotion.

Under Semi-skilled Labor, we find 319 individ-

uals having a minimum entrance age of 16 to 25 years and over, and an eighth grade educational requirement. The wages paid this group range from 16¢ to 60¢ per hour. From $\frac{1}{4}$ month to 5 months is considered necessary to learn the job. The labor supply is not adequate in all cases and is secured either locally or through promotion.

Under Common Labor, we find 51 individuals having a minimum entrance age of 16 to 25 years and over, and an eighth grade educational requirement. The wages paid this group range from 16¢ to 60¢ per hour, and up to one day is considered necessary to learn the job. The labor supply is adequate in all cases, and is secured locally.

Under Clerical help, we find 23 individuals having a minimum entrance age of 16 to 25 years and over, and an eighth grade or a high school educational requirement. The wages paid this group range from 16¢ to 80¢ per hour, and from 1 month to 4 months is considered necessary to learn the job. The labor supply is adequate in all cases and is secured either locally or through the schools.

CONCLUSION:

The most striking situation shown by this chart is the fact that 319 or 65 percent of the total number of employed people are classed as semi-skilled labor. Eight percent are in the managerial class, 8 percent in the skilled class, while 11 percent of the total number employed are in the common labor class. Over 75 percent of the total number employed need very little training to

become efficient in their work. This industry is open to adults as well as young people of vocational school age as is indicated in the minimum entrance age of all classifications. Management or supervision plays an important part in this business as is indicated by the number of people listed under managerial classification. Instead of any organized apprenticeship system of training, the promotional system is used to secure skilled help.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools

Chart No. III.
 Employment Data - Pay Roll Jobs.
 WOODWORKING

Minimum Entrance Age 16 to 20 years						Minimum Entrance Age 21 to 25 years						Minimum Entrance Age Above 25 years						Wage Group
Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor		
Clerical	12	4	Yes	8	LS	Helper	8	1D	Yes	4	L							
Common Labor	8	1/2D	Yes	7	L	Private Secretary	12	3	Yes	1	LS							
Billing Clerk	12	3	Yes	1	S	Bookkeeper	12	4	Yes	1	LS							
Sewer	8	*	Yes	21	LP												16¢	
Trimmer	8	*	Yes	10	LP												-	
Yard Helper	8	0	Yes	2	L												35¢	
Machine Helper	8	1/2	Yes	5	L													
Shipping Clerk	8	1/2	Yes	5	L													
Finisher Helper	8	1/2	Yes	8	L													
Shipping Clerk	12	1	Yes	1	P	Yard Man	8	1D	Yes	4	L	Estimator-Draftsman	12	5	Yes	1	L	
Machine Operator	8	1/2-3	Yes	172	P	Cabinet Maker	8	1	Yes	5	P	Machine Operator	8	3-4	Yes	5	L	
Bookkeeper	8-12	1/2-3	Yes	10	LSP	Machine Operator	8	0	Yes	40	L	Foreman	8-12	2-10	Yes	6	LP	
Steel Supt.	8	*	Yes	10	LP							Shipping Clerk	12	3-5	Yes	1	LP	
Cabinet Department	8	*	Yes	13	LP							Engineer	8	10	Yes	1	LP	
Finishing Department	8	3/4-1	Yes	24	LP							Wood Tanner	12	3-5	Yes	1	LP	
Common Labor	8	1 D	Yes	28	L							Band Sawyer	8	3-5	Yes	1	LP	
Cabinet Maker	8	2-3	Yes	4	P							Planer Operator	8	3-5	Yes	1	LP	
Cabinet Maker Helper	8	1	Yes	10	LP							Slasher	8	3-5	Yes	2	LP	
Crater	8	2-3	Yes	1	L							Sticker	8	3-5	Yes	1	LP	
Foreman	8	1-6	Yes	3	P							Cabinet Maker	8	3-5	Yes	8	LP	
Lumber Grader	8	2	No	1	L							Finisher	8	3-5	Yes	6	LP	
Glazier	8	1/2	No	2	L							Watchman	8	1D	Yes	1	LP	
Truck Driver	8	1	No	1	L													
Pattern Maker	8	8	Yes	2	L							Foreman	8	2-3	Yes	3	LP	
Sales Manager	12	2	Yes	1	P							Cabinet Maker	8	3-4	Yes	7	LP	
Shipping Clerk	8	2	No	1	L							Superintendent	12	5-10	Yes	1	LP	
Draftsman	8	2	No	1	L							Superintendent	8-12	2-5	Yes	3	L	
																	81¢	
																	-	
												Estimator-Salesman	12	3-4	Yes	1	L	
												Collector	12	3-4	Yes	1	L	
												Manager	8-16	Ind. Y-N	10	PO		
																	Up	
																	\$1.00	
																	\$1.01	
																	&	
																	Up	
TOTAL				352						55						61		

Chart No. III.

Employment Data -- Pay Roll Jobs

WOODWORKING

INTERPRETATION:

There are 468 people employed in this industry, 352 or 75 percent of whom entered the industry between the ages of 16 and 20 years, 55 or 11 percent between 21 and 25 years, and 61 or 14 percent entered when over 25 years of age.

In the first wage group, there are 73 individuals receiving less than 36¢ per hour, 67 of whom entered the industry under 21 years of age, and the remaining 6 between the ages of 21 and 25 years.

In the second wage group, we find 364 individuals who receive wages from 36¢ to 60¢ per hour. Two hundred and eighty of these individuals entered the industry under 21 years of age, 49 were between the ages of 21 and 25 years, and the remaining 35 were over 25 years of age.

In the third wage group, we find 15 individuals who receive wages from 61¢ to 80¢ per hour, 40 of whom entered the industry under 21 years of age while the remaining 11 were over 25 years of age.

In the fourth wage group, we find 4 individuals listed who receive wages ranging from 81¢ to \$1.00 per hour, 3 of whom entered the industry when over 25 years of age, while the remaining one was under 21 years of age.

In the fifth, or last, wage group, there are 12 individuals listed who receive wages ranging from \$1.01 per hour and up. The upper wage level is indefinite as all of the individuals listed were owners or managers, or worked on a commission basis, and we were unable to obtain more definite information from them. These individuals entered the industry when over 25 years of age.

With a few exceptions, the labor supply is adequate and is secured locally, through promotion, the schools, or ownership of the business. The amount of time necessary to learn the various jobs varies greatly with the type of job. The required education varies from completion of the eighth grade to the high school, with the exception of the managers and owners, whose educational requirements are somewhat higher.

CONCLUSION:

This chart shows very clearly that the majority of the people employed, namely: 352 or 77 percent of the total, are working at jobs that are available to workers under 21 years of age. Only 55 jobs are available that have a minimum entrance age requirement of 21 to 25 years, while 61 jobs require an entrance age of over 25 years. It is also noteworthy to mention that 438 or 93 percent of the total number of workers are in the first two wage groups. The chart also discloses a great number of different pay roll jobs for which the training period is very short, indicat-

ing that most of the jobs are not skilled jobs. The chart brings out, clearer than Chart II, the fact that there is need for more supervision than in some other industries studied because of the large number of foremen and superintendents. It seems to be the policy of this industry to promote their common labor to semi-skilled jobs and then to skilled and so on, without any clear-cut apprenticeship training scheme.

Verification Form

The undersigned, after thoroughly going over the data collected by O. J. Dorr, do hereby certify that the Interpretations and Conclusions drawn by him in reference to the WOODWORKING Industry in the city of Fond du Lac, Wisconsin are true, concise, and unclouded statements of the facts presented in this thesis.

SIGNED

FIRM

POSITION

1. J. W. Rosenbaum - W. J. Nuss Lumber & Supply Co. - Employee.

2. Wm. Mauthe - Northern Casket Co. - President

3. L. J. Schmidt - Combination Door Co. - President

4. Alb. J. Rosenthal - Rosenthal Woodworking Co. - Manager.

CHAPTER V.

SUMMARY

In this chapter, the writer has compiled all data found on each of the fourteen No. I Charts, as shown in the preceding chapter, on a single chart. A summary was then made from these data. This same procedure was followed in compiling the data for Charts No. II and Charts No. III from similar numbered charts as found in Chapter IV. Instead of dealing specifically with one particular industry and having the charts and summaries deal with that group, the summaries in this chapter cover a much larger field of workers who are not in homogeneous groups. The following charts and explanations will then show what the actual labor conditions and requirements are, as we found them, in reference to the specific questions asked of the employers in ninety-one different firms.

Chart No. 1
General Employment Data
ALL FIRMS

Firm Industries	Product No. of Firms	Number of Men	Number of Women	Number of Apprentices	Possibility of School Supplementing Training Given in Industry
Automobile	18	162	19	0	Yes
Baking	5	34	14	0	Yes
Dairy	5	168	21	0	Yes-No
Dry Goods	3	27	98	0	Yes
Electrical	8	26	6	7	Yes
Laundry & Dry Cleaning	4	27	45	0	Yes
Metal	9	344	64	16	Yes
Painting & Decorating	5	60	9	4	Yes
Plumbing	7	60	3	4	Yes
Power Machine	5	384	259	0	Yes-No
Printing	8	142	14	10	Yes-No
Public Utility	1	167	12	0	Yes
Sheet Metal	4	56	3	3	Yes
Woodworking	9	419	49	0	Yes
Total	14	2,076	616	44	

Chart No. I.
General Employment Data
ALL FIRMS

SUMMARY:

This chart gives one a bird's-eye view of all the industries studied. It is a composite chart of all No. I charts from 14 different industrial groups. It shows at a glance the names and types of industries studied; the number of firms surveyed under each different industry; and the total number of men, women and apprentices employed in each group; as well as whether there is a possibility of the school being able to supplement the training given in each industry.

It shows that there are 91 different firms surveyed. These 91 firms employ a total of 2736 men, women, and apprentices, of whom 2076 or 75.8 percent are men; 616 or 22.5 percent are women, and 44 or 1.7 percent are apprentices. Three industries indicated that there is some possibility of assistance while the remaining 11 indicated that the school can assist in their training program.

The chart indicates, as a whole, that there is a great deal of work that can be done by the Vocational School as far as supplementing the training given in industry is concerned.

Just what this work is and how it is to be accomplished cannot be stated until a job analysis is taken

in each of the several firms.

The small number of apprentices employed might be accounted for by the fact that the industries employing the larger number of individuals do not necessarily employ the most skilled help. A training or apprenticeship program generally runs parallel with large numbers of skilled help. In fact, this chart shows apprentices listed only under 6 industrial groups. These 6 groups, comprising 37 firms or 40 percent of the total number of firms surveyed, employ only 841 individuals or 30 percent of the total number of workmen.

A further study of the several No. I charts in Chapter IV will show that apprentices are not employed in each of the several firms listed under these 6 different industries, but are found in only a relatively few firms.

Chart No. II
Employment Data - Pay Roll Classifications
ALL FIRMS

Pay Roll Classification	Number Employed	Minimum Entrance Age	Minimum General Educational Requirement	Range in Wages per Hour	Minimum Time Required to Learn Job (Months)	Is Labor Supply Adequate	Source of Labor Supply
Managerial	291 or 10.6%	16-25 Years &Over	8-12 Grade U.	16¢ - \$1.00 & Up	$\frac{1}{2}$ - 12	Yes No	OPLS
Skilled Labor	929 or 33.9%	16-25 Years &Over	8-12 Grade U.	16¢ - \$1.00 & Com.	$\frac{1}{4}$ - 12	Yes No	PLAS
Semi-skilled Labor	1089 or 39.8%	12-25 Years &Over	6-12 Grade	16¢ - \$1.00	$\frac{1}{4}$ - 12	Yes	PLS
Apprentice	44 or 1.7%	16-20 Years	8-12 Grade	15¢-35¢	36 - 60	No Yes	LS
Common Labor	210 or 7.6%	16-25 Years &Over	6-8 Grade	16¢-80¢	Up to 1 week	Yes	L
Clerical	173 or 6.4%	16-25 Years &Over	8-12 Grade	16¢ - \$1.00	$\frac{1}{4}$ - 6	Yes	PLS
Total	2736	Legend: O= Ownership of business P= Promotion L= From similar or allied occupations either locally or outside of city A= Apprenticeship S= Schools					

Chart No. II.

Employment Data -- Pay Roll Classifications

ALL FIRMS

SUMMARY:

This chart is also a composite chart of all No. II Charts from the 14 different industrial groups studied in Chapter IV. It shows at a glance the total number employed, as well as the percentage, in each of the several pay roll classifications studied, together with the minimum entrance age, minimum general educational requirement, range in wages per hour, minimum time required to learn job, whether the labor supply was adequate, as well as the source of labor supply for each of these pay roll groups for all firms.

One is lead to believe that because of the nearly equal number of skilled and semi-skilled labor employed in the 91 firms studied and the small number of apprentices shown, that the majority of firms included in this survey, do not require a regular systematic apprenticeship training scheme such as is thought of in a first class machine shop. Common labor cannot be a very important factor in these industries because of the number employed, i.e., 210 or 7.6 percent, and also because the labor supply is always adequate. It is interesting to note that the labor supply for the managerial, skilled labor, and apprentice classifications is not adequate. This indicates a scarcity of

trained workers and it is in this field that the Vocational School should extend its efforts to overcome this difficulty. The fact that outside of one classification, that of common labor, one of the sources of labor supply is the schools, indicates that, in part at least, the various types of schools are being called upon to supply the labor for various types of jobs in industry. For this reason, it behooves the schools to cooperate with industry, and vice versa, to the end that the student will fit into the industrial life readily and efficiently, that the adjustment or transition period between school and work, or starting a new job, will be cut down to the minimum.

Legend: O= Ownership of business
 P= Promotion
 L= From similar or allied occupations either locally or outside of city
 A= Apprenticeship
 S= Schools
 * = See pages 135 and 146 for exception

Chart No. III.
 Employment Data - Pay Roll Jobs.
 ALL FIRMS

of entrance age.																		
Minimum Entrance Age 16 to 20 years *	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age 21 to 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Minimum Entrance Age Above 25 years	Minimum Education	Time Required to Learn Job (Months)	Labor Supply Adequate	Number Employed	Source of Labor	Wage Group
No. of Pay Roll Jobs						No. of Pay Roll Jobs						No. of Pay Roll Jobs						
61	6-12	0-60	Y-N	599	LPS	13	8-12	0-5	Y-N	37	LS	1	8	2	Yes	7	L	16¢ - 35¢
82	8-12	0-8	Y-N	905	LPS	53	8-12	0-6	Y-N	408	PLAS	47	8-12	0-10	Y-N	101	LP	36¢ - 60¢
26	8-12	1 D - 10 Mos.	Y-N	80	LPS	20	8-16	0-5	Y-N	148	LPS	23	8-12	½-12	Y-N	77	SLPA	61¢ - 80¢
14	8-16	½-12	Y-N	31	LPS	19	8-16	1-12	Y-N	127	LPAS	18	8-12	1-12	Y-N	30	LPS	81¢ - \$1.00
4	8-12	1-12	Y-N	15	LP	1	8	5	Yes	23	LA	42	8-16	1-12	Y-N	148	LPOS	\$1.01 & Up
TOTAL 187				1630		106				743		131				363		

Chart No. III

Employment Data -- Pay Roll Jobs

ALL FIRMS

SUMMARY:

There are 424 pay roll jobs listed in all firms, of which 187 or 44 percent are available to workers under 21 years of age, 106 or 25.2 percent are available to workers between 21 and 25 years of age and 131 or 30.8 percent require an entrance age of over 25 years. In studying further, we find that 75 pay roll jobs or 17.6 percent of the total are in the first wage group, 183 or 43 percent are in the second wage group, 66 or 16.2 percent are in the third wage group, 51 or 12 percent are in the fourth wage group, while 47 or 11 percent are in the fifth wage group.

We find 2736 individuals employed in all firms, of whom 1630 or 59.2 percent entered the industry between the ages of 12 and 21 years, 743 or 27.1 percent entered between the ages of 21 and 25 years, and 363 or 13.3 percent entered when over 25 years of age. In studying the number employed from another angle we find 643 or 23.5 percent are in the first wage group, 1414 or 51.7 percent are in the second wage group, 305 or 11.1 percent are in the third wage group, 188 or 6.8 percent are in the fourth wage group, and 186 or 6.7 percent are in the fifth wage group.

It is interesting to note that in the first three wage groups for all entrance ages, with the exception

of the first and third wage groups which require an entrance age of over 25 years, we find common labor listed. This pay roll group shows up because of the shortness of the time required to learn the job and is not found in the higher wage groups. The apprentices are listed in the first wage group whose entrance age is under 21 years. It is also interesting to note that the labor supply for all but two groups, which involve only 30 individuals are not adequate and that the schools supply labor in all but 3 of the different groups. We also find that 228 or 69.7 percent of all pay roll jobs, which involve 2057 or 74.2 percent of all the workers, are in the first and second wage groups.

The fact that 59.2 percent of the total number employed are working on jobs that are available to workers under 21 years of age indicates that the school should work closely with these industries for its placement and training problems and for industry's source of labor supply. In comparing the numbers employed in the different age groups, one is lead to believe that the chances for promotion rests with the individuals who start with these firms when under 21 years of age because there are more employed under 21 years than in both of the other age groups. It seems to be the policy of most of these firms to start their employees at a younger age and if they make good, they are retained. In other words, the tenure of the individuals is an important feature. This is brought

out clearly and forcibly by the fact that in practically every wage and age group, one of the sources of labor is through promotion. The two groups that are not affected by this method apply to only 11 pay roll jobs or 44 individuals.

CHAPTER VI.

CONCLUSION

In the first chapter, we set up our problem, i.e., the difficulty of dealing efficiently with a large group of employed boys and girls without having any definite information regarding industrial requirements in our city. We also set up the purpose of this thesis and explained how we were going about the solution of the problem.

In Chapters II and III we developed and explained the questionnaire used in the actual gathering of the occupational information and explained the three different employment data charts used in compiling these employment data.

Chapter IV contains the occupational information as compiled from the questionnaire. This chapter is composed of 14 sections, each section dealing with a homogeneous group of firms and the actual employment data secured is shown by the use of 3 different charts for each one of these sections. An interpretation and conclusion is drawn from each chart and a verification form follows each section.

Chapter V contains 3 different employment data charts, each chart being the compilation of all similar numbered charts found in Chapter IV and a general summary follows each chart.

This study does not give one a great deal of

specific information relative to just what should be taught in the part-time school to our young workers, but it does indicate what some of the job requirements are in the several firms studied in so far as they apply to the specific questions asked on the questionnaire. A wealth of information was secured from nearly all firms that indicated possibilities of some sort of training. Whether this should be training on the job or in the school was not disclosed. Another study of a different type would have to be made to get this detailed information. Suffice to say, this study disclosed a necessity of future training and surveys.

We wish to state that, because of what this study disclosed in some of the firms studied, the following additions have been made to our curriculum in both day and evening school:

1. A full-time commercial course for high school graduates.
2. A rearrangement of handling the apprentices for their day in school.
3. Instructors' teaching time has been rearranged in order to allow them to do some field work each week.
4. Courses in Auto Mechanics, Comptometry, and Welding were started in both day and evening school.

5. Foremanship Classes have been conducted in four different firms.

We also noticed several new firms calling upon us for their labor supply which can be directly traced to the contacts made because of this survey.

The writer is of the opinion that extensive work should be done in practically every firm in so far as encouraging the hiring of apprentices or of assisting in a training program for both new and old help is concerned. Several industries are now employing a number of apprentices but these are limited to but a few highly skilled trades. Many individual firms in these skilled trades, not so highly organized, have apparently no systematic way of training their employees.

We feel that the method used in getting the employers to sign their names to the verification form, after the information was worked up in a chart form with interpretations and conclusions drawn, was very much worth while in several ways:

1. The employers admitted that they did not visualize clearly the use we would make of this information at the time the data were collected.
2. Employers were rather doubtful as to our motives, and, although we were given the information asked for, in several cases this

was done because they did not want to offend us.

3. They thought it was just another schoolman's fad.
4. It put us in a much closer contact with employers because, in many instances, we apparently showed them something about their business to which they had not given very much thought.
5. It was a means of selling different departments of the school to individual employers.
6. It has elevated the part-time school and what it stands for because of the personal interest the school took in gathering, compiling, interpreting, and verifying industrial information, out in the industrial field.
7. Above all the school has secured a larger degree of confidence from employers.

There are undoubtedly many schools in different communities in this country that do not hold the confidence and respect they should from the industrial people. This is not a strange situation when one realizes that we school people, instead of working closely with industry, have actually set up our school programs with the ease of administration in mind rather than in what happens to our product when it leaves school. Our students all drift into

industry in some capacity or other. You can not keep them out, due to the necessity of earning a living. Because of this situation, it should be the most important duty of the schools to see that the transition period from school to industry be made as short as possible. It should also be the duty of the instructor in a school that deals with the employed boy or girl, man or woman, to have on hand first hand occupational information similar to that which has been discussed in this thesis, to the end that more efficient guidance can be given to those who need it.

Any department having charge of a state program of vocational training should have on hand some such sort of information as we have discussed in this thesis in order to more fully realize the employment and training problems facing the youth in school or the individual on the job.

As a result of this study, it is our opinion that any Part-time school in order to be successful must have a very close tie up and there must be a close cooperation between the employer, employee, and the school. Without this close cooperation, the main objective that all three groups are vitally interested in, i.e., that of training, cannot be successfully carried out to be of material benefit to the people concerned, namely:

1. The student who plans to enter industry in the near future.
2. The employed boy or girl who has enrolled

in the part-time school.

3. The older employee, whether he is on an old or new job.
4. The employer of labor.
5. The part-time school.
6. The community in general.

AN ABSTRACT

of the

T H E S I S

AN OCCUPATIONAL SURVEY

Gathering, Compiling and Interpreting
Occupational Data in the City of
Fond du Lac, Wisconsin

Submitted by

OTTO J. DORR

In partial fulfilment of the requirements

for the Degree of Master of Science

Colorado Agricultural College

Fort Collins, Colorado

May 20, 1930

AN ABSTRACT

of the

T H E S I S

AN OCCUPATIONAL SURVEY

Gathering, Compiling and Interpreting
Occupational Data in the City of
Fond du Lac, Wisconsin

The writer of this thesis has prepared at some length a detailed description of how a study of occupations was conducted in 91 industries and commercial institutions in the city in which he is the Director of Vocational Education.

The thesis begins with a foreword written by the State Director of Vocational Education of Wisconsin in which he gives the writer's educational and practical experiences as well as his service record in the Vocational School movement in Wisconsin. Following this, the motive for the study, acknowledgment of those who assisted in the development of the project, and those for whom the thesis was written, are briefly stated.

A table of contents follows which is somewhat lengthy and in detail.

In Chapter I, which is the introduction, one will find an explanation of the problem faced by the writer as he saw it, and correlating this, he gives a word picture of

his city, educational laws of his state, and a brief description of the types of schools found in his city including the school of which he is the Director. This is followed by clear-cut statements as to the purposes of the thesis, the method of procedure followed in securing the occupational data and information relative to how such a study affects the administration of a school.

Chapter II contains a detailed description of the materials and methods used in the investigation with a full explanation of how and why the particular form of questionnaire used was arrived at. Following this development, a rather lengthy description is given of the methods used in filling out the questionnaire including the making of the initial contact with the employer, who follows this up and why, as well as stating some of the difficulties encountered, in these contacts. A copy of the form of the original questionnaire then follows, together with a detailed explanation of how each question on it was to be interpreted when the information was actually gathered.

One will find in Chapter III the justification for the use of compilation charts designated as Employment Data Charts as well as a statement of the reasons for, and how each of the three different charts are to be used and interpreted, when the actual data, as collected on the original questionnaire is transposed on these charts.

So far the writer has given the reader only the

ground work upon what transpired before this occupational study was made, and the development and use of various forms or charts, devised in the interpretation of the data collected. The original questionnaire as actually filled out is not included in this thesis, but in Chapter IV detailed results of this study are compiled on the employment data charts that are mentioned in Chapter III. In this chapter we find 91 firms studied, divided into 14 large industrial groups, a paragraph devoted to the reasons for these divisions and the application of the three employment data charts mentioned in Chapter III to each of these industrial groups.

Each industrial group is studied separately and the information actually secured on the original questionnaire is transferred to the three employment data charts. Following each chart is the writer's interpretation of the chart and then a conclusion is drawn from this. In order to verify these interpretations and conclusions for each industry, the author used a verification form to check his work by going back to a representative group of employers and, in some instances, employees, and securing from these individuals their signatures to the effect that the interpretations and conclusions as written were correct.

Chapter V contains the three different employment data charts, each chart being the compilation of all similar numbered charts found in Chapter IV and followed

each in a general summary of the chart as it affects all the firms studied. This procedure of summarizing is followed after each of the charts. Chapter V summarizes the occupational information secured in this study by the use of the three different employment data charts. Each chart, being the compilation of all similarly numbered charts found in Chapter IV, is followed up by a written page or two giving a general summary of the results of the information secured on the respective charts as pertaining to all of the 91 firms studied.

Chapter VI, which contains the conclusion, opens with short paragraphs reviewing each preceding chapter of the thesis. We then find a paragraph or two on what this study did and did not disclose, and what effect it had upon the curriculum of the Vocational Day and Evening School. A paragraph is devoted to what further work should be done in this city in the light of the information gathered. Several noteworthy points of view are mentioned as the direct result of the method followed in verifying the information on each industrial group. Statements are then made in reference to the place the school should hold in respect to the community. The Chapter ends with a paragraph setting forth the writer's viewpoint of what is necessary to have a successful Part-Time School.