

**PLAN OF OPERATION OF RURAL ELECTRIC
JOB TRAINING AND SAFETY PROGRAMS**

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JOB TRAINING AND SAFETY PROGRAMS

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CHAPTER I

INTRODUCTION

STATEMENT AND PURPOSE OF STUDY

This study, a plan of operation of Rural Electric Job Training and Safety programs, is an attempt on the part of the writer to determine the plan of operation followed and the manner in which the Job Training and Safety programs are conducted in the various states. It was the writer's purpose to gather data and secure information which could be used by the various states in evaluating individual state programs.

The thought behind this study was that it would serve as a basis for comparison of programs and that each state would receive some benefits by understanding how these programs are conducted in other states.

Since the beginning of the Rural Electrification Administration on a nation wide scale, Job Training and Safety programs have been developed in every state where there were any appreciable number of Rural Electric Cooperatives. There are instances where states do not have Rural Electric Cooperatives, or too few cooperatives to support a program. However, there are programs in thirty-four of the forty-eight states in the United States.

Importance of the Study: It has become apparent that the programs in the different states are all trying to do the same job; that is, (1) to help the supervisory personnel in the Rural

Electric Cooperatives to do a better and more thorough job of training employees in job training within the craft and in related training (Related training may include such subjects as arithmetic, principles of electricity, and related sciences which the employee needs to be a better informed and more productive worker), and (2) to so train employees that they will use the safest methods known to the trade in accomplishing the every day tasks required of Rural Electric employees.

There is a question in the minds of some trade instructors as to the relationship of safety training and job training. This is evident from the replies of some of the respondents to a questionnaire which was submitted by the writer.

Methods of Procedure: The above mentioned questionnaire was a questionnaire compiled by the writer which was submitted to all states to gather such data as would reveal the details in the functional operation within the programs, and also to make comparisons between the programs in various states. In order to insure that the questionnaire included those items which are functional and of concern to all those interested in the operation of Job Training and Safety programs, conferences were held with members of the State Staff and the Teacher Trainer for Trade and Industrial Education in Oklahoma. These members included Mr. Walter Arnold, State Supervisor for Trade and Industrial Education in Oklahoma, Mr. Perry Norris, Assistant State Supervisor for Trade and Industrial Education in Oklahoma, Mr. Glenn Smith, Head and Teacher Trainer of Trade and Industrial Education, Oklahoma A. & M. College, and Mr. Albert Hendrix, Job Training and Safety Instructor for

Oklahoma. As a result of these conferences, a questionnaire was designed to conform to the purpose, scope and limitations of the problem. The questionnaire was then compiled and submitted to all State Supervisors of Trade and Industrial Education, to Trade and Industrial Teacher Trainers, and to all Rural Electric Job Training and Safety Instructors in the United States. The questionnaire is a part of this report and will be referred to as appendix "A".

Ninety-three questionnaires were mailed, seventy-nine returned, a percentage of return of seventy-four percent. After the questionnaires were returned, the data was tabulated and summarized. This data will be examined in this study.

Limitations: This investigation is limited to those states supporting a Rural Electric Job Training and Safety program and does not take into account the programs conducted by Public Utility Companies, which would compare with the Rural Electric Job Training and Safety programs in content and scope. There is one exception to this Limitation. The State of New York did return a questionnaire, in spite of the fact that the State of New York does not have enough Rural Electric Cooperatives to support a Rural Electric Job Training and Safety program on a state-wide level. However, they do have a parallel program supported by the local utility companies and the State Office for Trade and Industrial Education, which is closely related to the Rural Electric Job Training and Safety programs. Therefore, the data from New York is included in this study. Only those factors concerned with the operation and administration of Job Training and Safety programs in connection with Rural

Electric Cooperatives are considered in this report.

The questions on the questionnaire were made as objective as possible. However, some misinterpretation probably did occur and should be taken into account when considering the data of this material.

Organization of the Chapters: The chapters are organized in the following manner: (1) Chapter I, Introduction. (2) Chapter II, Administration of the Program, containing questions number 1, 2, 3, 4, 5, 6, 12, 13, 14, 15 from appendix "A". (3) Chapter III, Regular Training Programs, containing questions number 7, 8, 9, 10, 11, 16, 17, 18 from appendix "A". (4) Chapter IV, Special Training Programs, containing questions numbers 19, 20, 21, 22, 23, 24 from appendix "A". (5) Chapter V, Summary and Conclusions.

Note: An average or typical situation or reply is given in this report wherever it can be mathematically calculated. However, many of the questions had to be interpreted and analyzed individually.

CHAPTER II

ADMINISTRATION OF THE PROGRAM

The various programs have the same ends in view, i.e.; to assist the local Rural Electric Cooperative personnel in the training of their employees and to do this training in such a way that said training will promote safety and the saving of human life. The actual administration of the various state programs, while trying to accomplish the two aforementioned objectives, will vary from state to state.

In this chapter, those questions from the questionnaire will be considered which pertain to the administration of the Job Training and Safety programs. The questions dealing with administration of the programs will be presented and considered individually.

1. DO YOU HAVE A JOB TRAINING AND SAFETY INSTRUCTOR IN CHARGE OF TRAINING IN CONNECTION WITH THE STATEWIDE REA ORGANIZATION?

Of this, forty-seven replies were "yes", eighteen were "no". In one instance, we received no reply from a state where an instructor recently resigned, but where the Job Training and Safety program is normally conducted. One "no" reply was from the Trade and Industrial Education officer in the state where the State Trade and Industrial Office did not recognize the Job Training and Safety instructor. Sixteen "no" replies were from states or territories having Trade and Industrial Education offices, but no, or very few, Rural Electric Cooperatives and, therefore, no Job Training and Safety program.

47 - Yes

18 - No

1A. IF MORE THAN ONE INSTRUCTOR, HOW MANY?

One state had six instructors, one state had three instructors, fourteen states had two instructors, and sixteen states had one instructor.

Question 1A can be further tabulated as follows:

<u>States</u>	<u>Number of Instructors</u>	<u>Total</u>
1 State	6 Instructors	6
1 State	3 Instructors	3
14 States	2 Instructors	28
16 States	1 Instructor	16
<hr/>		<hr/>
32 States		53

Exactly 50% of the states from which replies were received have more than one instructor. This gives a national average of 1.66 instructors per state.

2. IS THE INSTRUCTOR DOING SAFETY TRAINING?

Forty-two replied "yes", two replied "no", and three did not answer this question. One reply stated that they had Job Training with emphasis on correct methods which are safe procedures. Another quoted, "I cannot quite see how there is such a subject as Safety Training." One replied that one instructor in the state concentrates on Safety Training and the other on Job or Related Training.

42 - Yes

2 - No

3 - No reply

2A. IS THE INSTRUCTOR DOING JOB TRAINING?

Forty-six replied "yes", one did not answer, and, as in question number two, one replied that they had one instructor doing Job or Related Training and the other doing Safety Training in their state. One replied that they were doing Job Training in several fields.

46 - Yes

1 - No reply

2B. IS THE INSTRUCTOR DOING RELATED TRAINING?

Thirty-six replied "yes", three replied "no", and eight did not answer. There was one reply which stated, "it depends on the subject". Another, the Related Training was taught on subjects necessary to understand correct procedures. One said they had done very little informational training.

36 - Yes 3 - No 8 - No reply

The replies to question 2, 2A, and 2B indicate that the question was to some respondents misinterpreted or indefinite. However, the answers do indicate that there exists a strong emphasis on safety and mechanical job training in preference to related instruction training.

3. WHO IS RESPONSIBLE FOR SAFETY TRAINING?

One replied that the Statewide Organization was responsible, one said that such training was the responsibility of each individual cooperative, two said the question seemed indefinite, six said that the responsibility was shared equally by the instructor, State Department of Trade and Industrial Education, and the Statewide Advisory Committee, sixteen said that the instructors were responsible, and thirteen did not reply to this question.

Instructor responsible for safety training	16
Did not reply	13
Instructor, State Department, Statewide	6
Question indefinite	2
Statewide	1
Individual Cooperatives	1

3A. WHO IS RESPONSIBLE FOR JOB TRAINING?

Twelve did not answer this question, there were two replies that the area was assigned as the program demanded, two replied that the question seemed indefinite, sixteen said the instructors were responsible for Job Training, and seven replied that the

responsibility was shared by the instructors, the State Department for Trade and Industrial Education, and the Statewide Advisory Committee. In four replies, the State Department for Trade and Industrial Education assumed this responsibility, in one, the individual cooperatives were given the responsibility, and in other instances, the instructor in combination with the line superintendent or line foreman. Three of these instances were quoted, and in one case, the State Engineering Extension Service was given this responsibility. And again in reply to this question, one state replied that one instructor in the state concentrates on Job Training and one concentrates on Safety Training.

Instructor responsible for job training	16
Did not reply	12
Instructor, State Department, Statewide	7
State Department for T and I Education	4
Instructor and local foremen	3
Question indefinite	2
Engineering Extension Service	1
Local Cooperatives	1

3B. WHO IS RESPONSIBLE FOR RELATED TRAINING?

Thirteen did not answer, eleven replied that the instructors were responsible, eight replied that this was the joint responsibility of the Trade and Industrial Education Department and the Job Training and Safety Instructor, and the Job Training and Safety Advisory Committee. Three replied this this was the responsibility for the State Board for Trade and Industrial Education, one replied that it was the responsibility of the State Engineering Extension Service, and one state replied that one instructor in the state concentrates on Job and Related Training and one on Safety Training.

Did not reply	13
Instructor responsible for related training	11
Instructor, State Department, Statewide	8
State Department for T and I Education	3
Engineering Extension Service	1

The replies received to question 3, 3A, and 3B, as to who is responsible for the three areas of training; i.e. job, safety, and related instruction training, indicate that Job Training and Safety Instructors are held responsible for all three in a majority of cases with the State Office for Trade and Industrial Education and the Statewide Advisory Committees acting in an advisory capacity to assist the instructors with these responsibilities.

4. WHAT PERCENT OF TIME IS SPENT IN SAFETY TRAINING, JOB TRAINING, AND RELATED TRAINING?

No. of Answers	% of time in Safety Training	% of time in Job Training	% of time in Related Training
6	25%	50%	25%
6	50%	50%	0
3	50%	40%	10%
2	20%	30%	50%
2	80%	15%	5%
2	20%	60%	20%
2	33 1/3%	66 2/3%	0
2	0	50%	50%
2	30%	60%	10%
2	40%	40%	20%
2	35%	35%	30%
2	50%	10%	40%
1	100%	0	0
1	0	66 2/3%	33 1/3%
1	45%	45%	10%
1	15%	50%	35%
1	0	75%	25%
1	50%	25%	25%
1	60%	15%	25%

National Average in percent:

37.2% 43.2% 19.5%

In regard to the amount of time spent in these areas of training, the averages of all replies as tabulated from question four give averages for the programs throughout the nation as follows.

Average time spent in safety training	37.2%
Average time spent in job training	43.2%
Average time spent in related training	19.5%

One reply showed that the program devoted 100% of the instructors time to safety training. Four replies reflected the idea that safety training can not be separated from job or instructional training and they showed no time for safety training.

5. TO WHOM IS THE INSTRUCTOR DIRECTLY RESPONSIBLE?

Twenty-three said to the State Department for Trade and Industrial Vocational Education, ten to the combination of the State Department for Trade and Industrial Education and their advisory committees, six report directly to the Advisory Committee, four to an educational institution, college, etc., and three directly to the manager of the individual cooperatives with whom he works.

Replies to question number five, "To whom is the Instructor directly responsible?" show a strong sense of responsibility to the various State Departments for Trade and Industrial Education. Only four of the replies stated that the instructor reported to an educational institution, and three reported directly to the individual cooperatives.

State Department
of Vocational Education
Trade & Industrial Education

70%

Statewide R. E.
Organization

18%

Educational
Institution

12%

6. HOW IS THE JOB TRAINING AND SAFETY PROGRAM FINANCED IN YOUR STATE? DEPARTMENT OF VOCATIONAL EDUCATION, STATEWIDE REA ORGANIZATION, EDUCATIONAL INSTITUTION.

No. of Answers	State Department of Vocational Education Trade & Industrial Education	Statewide R. E. Organization	Educational Institution
14	50%	50%	0
4	33%	67%	0
3	33 1/3%	33 1/3%	33 1/3%
3	100%	0	0
3	60%	40%	0
2	40%	60%	0
1	80%	20%	0
1	75%	25%	0
1	67%	33%	0
1	65%	35%	0
1	61%	39%	0
1	45%	45%	10%

National Average:

53.9%

43.0%

3.1%

In regards to the financing of the various programs, the national averages show that the State Departments for Trade and Industrial Education finance 53.9%, the Statewide Organizations financed 43.0%, and educational institutions financed 3.11% of the programs.

12. WHAT IS THE NUMBER OF RE COOPERATIVES IN YOUR STATE?

Two did not answer, one state had 78 cooperatives, two had 55 cooperatives, three had 43 cooperatives, one had 45 cooperatives, five had 29, three had 27, four had 24, one had 40, two had 36, three had 32, four had 23, one had 21, one had 18, four had 15, two had 13, one had 12, one had 3, two had 41, and four had 26. One replied that they did not know how many cooperatives there were in their state.

13. HOW MANY OF THE ABOVE COOPERATIVES PARTICIPATE IN YOUR JT & S PROGRAM?

One had 72, two had 55, one had 43, one had 42, two had 41, three had 38, one had 35, one had 34, one had 32, one had 29, two had 28, one had 27, five had 26, one had 25, three had 23, two had 21, three had 20, one had 22, one had 18, three had 14, four had 13, one had 12, one had 11, and one program had 3. One again replied that they did not know, and two did not answer this question.

Number of Answers Received	Number of Cooperatives in the State	Number of Cooperatives Participating in Program
1	78	72
2	55	55
1	45	43
1	43	42
2	43	41
2	41	38
1	40	38
1	36	35
1	36	34
1	32	32
1	32	29
1	32	28
1	29	28
3	29	26
2	27	26
1	27	25
3	26	23
1	26	22
2	24	21
2	24	20
1	23	20
2	23	14
1	21	14
1	18	13
2	15	13

Number of Answers Received	Number of Cooperatives in the State	Number of Cooperatives Participating in Program
1	15	13
1	15	12
1	13	11
2	13	?
1	12	?
1	3	3

There is some discrepancies in tabulating the replies to questions twelve and thirteen. In the above tabulation, the first figure is the number of answers received in each numerical category, the second figure is the number of cooperatives in the respondents state, and the third figure is the number of cooperatives participating in the job training and safety program in the state from which the reply was received.

The writer would like to point out that the replies are not segregated as to states, and the above discrepancy can be explained by remembering that answers were received in some instances from different sources in the same state and they did not always agree as to content. However, the above tabulation does show the very high percentage of the participating cooperatives to the total number of cooperatives.

Total number of cooperatives	895
Total number of participating cooperatives	791
Percentage of participating cooperatives	88%

14. DOES YOUR STATE HAVE AN RE STATEWIDE ADVISORY COMMITTEE?

Forty-three replied "yes", three replied "no", and two did not answer the question.

93% - yes

7% - no

15. IF THE ANSWER TO 14 IS YES, WHAT IS THE COMPOSITION OF THE COMMITTEE?

MANAGERS	FOREMEN	BOARD MEMBERS	OTHERS
3	-	3	6
3	-	3	6
2	2	-	-
2	2	-	-
4	3	3	-
3	3	-	-
3	3	-	-
3	3	-	-
2	-	1	-
6	-	-	-
6	-	-	-
3	-	-	1 (Department of Education Supervisor)
7	-	-	-
4	4	-	-
2	-	2	2 (Two linemen)
3	3	3	-
3	3	3	-
3	3	1	1
3	3	3	-
1	1	2	2 (One Lineman and one manager advisor)
1	1	2	2
3	3	-	-
3	3	-	-
3	3	-	-
3	3	-	-
3	3	-	-
3	3	-	-
3	3	3	1 (Statewide General Manager)
3	3	3	-
3	3	3	-
3	3	3	-
3	3	3	-
5	-	1	-
2	2	2	1 (State Supervisor of T & I)
2	2	2	1 (State Supervisor of T & I - Sec. to Committee)
3	2	1	-
4	2	1	-

MANAGERS	FOREMEN	BOARD MEMBERS	OTHERS
3	1	2	1
2	2	2	-
2	2	2	-
6	6	6	6
6	-	-	-
6	-	-	-
6	-	-	-
6	-	-	-
7	-	-	-
2	2	2	1 (State Supv. of T & I, Secretary to Committee)

Questions fourteen and fifteen deal with the existence of and composition of the Statewide Advisory Committees. Most of the states do have advisory committees according to the replies of respondents. The tabulation of the results of question fifteen show that the advisory committees have from one to seven managers on the committee, acting in most instances with a combination of foremen, board members, and others. The category of others are made up of Statewide managers, Trade and Industrial personnel, and linemen. A composite advisory committee calculated from the data contained in the replies to question fifteen would consist of:

3.48	Managers
1.84	Foremen
1.54	Board Members
.67	Others

CHAPTER III

REGULAR TRAINING PROGRAMS

The actual job and related instructional training is dealt with in this chapter and covers in particular that part of the job training and safety instructors work in the areas of job training and related instruction training, carried out during the instructors regularly scheduled visitations to the local cooperatives. This material differs from the special job and related training programs which is covered in Chapter IV.

7. DOES THE INSTRUCTOR MAKE DAILY REPORTS?

Twenty-one replied "yes", twenty-one replied "no", and three did not answer. Three replied that they made quarterly reports.

7A. DOES THE INSTRUCTOR MAKE WEEKLY REPORTS?

Twenty-two replied "yes", twenty replied "no", and four did not reply. One replied that they made weekly reports to the assistant of itinerary.

7B. DOES THE INSTRUCTOR MAKE MONTHLY REPORTS?

Eighteen replied "yes", twenty-three replied "no", and five did not answer. One replied circuit reports at the end of each circuit.

7C. DOES THE INSTRUCTOR MAKE AN ANNUAL REPORT?

Fifteen replied "yes", eight replied "no", and twenty-two did not answer. One replied quarterly reports only, and one replied itinerary reports at Trade and Industrial Education and Department of Public Instruction.

Does instructor make:	Yes	No	Did not Reply
Daily Reports	21	21	3
Weekly Reports	21	20	4
Monthly Reports	18	23	5
Annual Reports	15	8	22

In replies to questions seven through seven "B", it is shown that approximately fifty percent of the instructors do make daily, weekly, and monthly reports. In reply to question seven "C", only fifteen replied "yes", eight replied "no", and twenty-two did not answer this question, which leads the writer to believe that the question was possibly misunderstood as to what was meant by the term Annual Report. If it had been explained that this term included verbal reports, and/or annual requests for finances, or the presentation of an annual budget, it is probable that the answers would have included more "yes" answers in those instances where the recipient of the questionnaire did not answer.

8. WHO RECEIVES THE INSTRUCTORS REPORTS? INDIVIDUAL COOPERATIVES.

Fourteen replied "yes", nineteen replied "no", and ten did not answer. One reply was a report on time spent on individual cooperative projects only. Another reply was the managers and foremen were to receive individual reports. One replied daily, and one said individual cooperatives receive a report of each inspection.

8A. WHO RECEIVES THE INSTRUCTORS REPORTS? ADVISORY COMMITTEE.

Twenty-eight replied "yes", eight replied "no", and eight did not answer. One reply was report quarterly to Advisory Committee. One replied, inspection reports filed in the Statewide Advisory Committee office.

8B. WHO RECEIVES THE INSTRUCTORS REPORTS? STATEWIDE ORGANIZATION.

Eighteen replied "yes", fourteen replied "no", and thirteen did not answer. One replied that they report yearly to the Statewide Organization, and one replied that they reported monthly.

8C. WHO RECEIVES THE INSTRUCTORS REPORTS? EDUCATIONAL INSTITUTION.

Nineteen reported "yes", fifteen reported "no", and twelve did not answer. One replied that the state institution received a daily report.

8D. WHO RECEIVES THE INSTRUCTORS REPORTS? STATE DEPARTMENT OF VOCATIONAL EDUCATION.

Thirty-two replied "yes", five replied "no", and nine did not answer. One replied that the State Department for Vocational Education receives a yearly report. One replied that the State Department for Vocational Education receives a monthly report.

Who receives Instructors reports	Yes	No	Did not Reply
Individual Cooperatives	14	19	10
Advisory Committee	28	8	8
Statewide Organization	18	14	13
Educational Institution	19	15	12
State Department for Vocational Education	32	5	9

Questions eight through eight "D" called for replies as to who receives the instructors reports, i.e.; Individual cooperatives, advisory committees, Statewide organizations, educational institutions and/or the State Department for Trade and Industrial Education, and approximately fifty percent of the instructors report to the other agencies.

9. WHAT PROFESSIONAL ASSISTANCE DOES YOUR INSTRUCTOR RECEIVE FROM THE STATE DEPARTMENT FOR VOCATIONAL EDUCATION?

In fourteen cases the reply was that they received supervision and teacher training. Six replied that they received advice. Five replied that they received instructional materials, assistance with their teaching problems, and assistance to the instructor. Two replied that they received job instruction training and job rating training advice and moral support. Four replied that they received aid in lesson planning. Four replied that they received no assistance whatsoever from the state department. One did not answer. The following are some typical answers to this question: same as in private organization, occasional supervision, as much as needed; summer school for instructors; teacher training and conference leadership; related teacher and foreman training; assisted through the state university; teaching by supervision; individual conferences; personal guidance; and literature.

9B. WHAT PROFESSIONAL ASSISTANCE DOES YOUR INSTRUCTOR RECEIVE FROM THE STATEWIDE REA ORGANIZATION?

Ten replied that they received no professional assistance from the Statewide Organization. Eight did not reply to this question. Seven replied that they received advisory service in operation of their program. Four replied that they received individual consultation service, Job Training and Safety Committee consultation periodically. Three replied that they received the cooperation and help of their Statewide Organization. Three replied that they received assistance in program and conference planning. Two said that they received suggestions regarding the needs of the cooperatives, with respect to Safety and Job Training, and two replied that they received program planning and general direction, recommendations and suggestions, limited amount of clerical assistance to their programs.

9C. WHAT PROFESSIONAL ASSISTANCE DOES YOUR INSTRUCTOR RECEIVE FROM STATE EDUCATION INSTITUTIONS?

Fifteen did not reply, nine replied that they received no professional assistance from their state institutions, two replied that they must attend an accredited college until required courses are met, and two replied that they received advice on teaching methods. Other replies to this question are as follows: there was assistance available if needed; they received teacher training, instructor training, instructional material, supervision and administration; they attended summer instruction courses when applicable to this type of teaching; related teacher and foreman training, assisted

through their state university; trade and industrial teacher training, also related training materials; office space; clerical help; and classrooms for conferences. Some replied that they received films for their programs.

9D. WHAT PROFESSIONAL ASSISTANCE DOES YOUR INSTRUCTOR RECEIVE FROM OTHERS?

Twelve did not reply, and four replied that they did not receive any professional assistance from any other source. Others replied as follows: some of them said that they received literature, models, visual aides, and personal help from other sources to assist them with their program. Others replied that they received publications, demonstrations, and engineering bulletins. Some received equipment from manufactures, pamphlets, manuals, and engineering service in conducting special courses from manufacturing companies and line supply companies.

In the replies to the questions 9, 9B, 9C, and 9D, it is evident that the instructors lean heavily on the State Departments for Trade and Industrial Education for professional assistance. Teacher training of the instructors, and supervision of the programs being the categories of professional assistance most often mentioned, with development of instructional materials, advice and moral support, as other means employed by the State Departments for Trade and Industrial Education to assist the instructors.

The Statewide Rural Electric Organizations in a few instances give some consultation and advice to the instructors on the subject of professional assistance.

In regard to the use of professional assistance from state educational institutions and from other sources, i.e.; manufacturers, engineering and research organizations, national, state, and local safety councils, the Rural Electrification Administration, etc., it is the belief of the writer that a

rich source of professional assistance is being over looked by most of the instructors.

10. WHAT IS THE AVERAGE LENGTH OF EACH VISIT TO THE LOCAL CO-OP? HOURS.

Three replied 16 hours, one replied 12 hours, nine replied 8 hours, five replied from 6 to 8 hours, four replied 7 hours, fourteen replied 6 hours, four replied 4 hours, two replied 2 hours, and two did not answer. One stated 8 hours includes travel time, field inspection, and classroom work. One said two to four hour meetings, and two to four hours in the field. One replied an 8 hour day includes travel, etc. One replied that he gave 56 hours per month to each cooperative.

Tabulation of Question No. 10:

Number of replies	Length of visit	Totals
3	16	48
1	12	12
11	8	88
5	6-8 (7)	35
4	7	28
15	6	90
4	4	16
2	2	4
<hr/>	<hr/>	<hr/>
45		321

National average for hours per visit --- 7.13 Hours

11. WHAT IS THE AVERAGE NUMBER OF VISITS TO EACH COOPERATIVE PER YEAR?

Three did not reply, two replied 12 meetings, four replied 11 meetings, four replied 10 meetings, one replied 10 to 11 meetings a year, four replied 9 to 10 meetings, one replied 10 to 12, one replied 9 meetings a year, six replied 8 meetings a year, three replied 7 meetings a year, two replied 6 meetings a

year, four replied 5 meetings a year, four replied 4 meetings a year, two replied 3 meetings a year, and one replied 2 meetings a year. One replied that they give 84 hours per year to each cooperative.

Question number eleven is tabulated as follows:

Number of replies	Number of visits per. year	Totals
2	12	24
4	11	44
4	10	40
1	10-11 (10.5)	10.5
4	9-10 (9.5)	38
1	10-12 (11)	11
1	9	9
6	8	48
3	7	21
2	6	12
4	5	20
4	4	16
2	3	6
1	2	2
<hr/>	<hr/>	<hr/>
39		301.5

National average for visits per year --- 7.73 visits

16. WHAT INSTRUCTIONAL MATERIALS ARE USED IN YOUR TRAINING PROGRAM?

One did not answer this question. Some of the typical replies were: trade extension information and assignment sheets, apprentice text books, literature, sound slides, motion pictures from insurance companies, National Safety Council releases, Electrical Engineers Institute, Rural Electric Administration, National Rural Electric Cooperative Association, American Red Cross, accounts of incidents and accidents, and job

experiences from cooperative crews. Another replied that visual aides: motion pictures, slide projectors, blackboards in the classroom, model transformers, and the Crow Electrical Kit were used. Another replied that Texas, Oklahoma, Florida, Wisconsin, Washington, and Alabama materials were used; also, materials from manufacturing companies, and the National Rural Electric Administration headquarters. Another replied that models, mock-ups, motion pictures, slides, films, color slides, use of line materials, literature from manufacturers, text books, etc. Another replied some films and some mimeographed materials. Another replied material prepared by the instructor, standard text, manufacturers literature, etc. Another replied state laws, codes, rules and regulations, job procedures, job procedures approved by the governing board, also, National Safety Council releases, Fire Underwriters Laboratory releases, McGraw-Hill Publications, Oklahoma A & M Training Manual. Another replied that hand out instructional materials, demonstration kits, cut aways, and mock-ups were used. Another replied that they used the Oregon Linemans Training course. Another replied the REA Recommendations, Insurance companies booklets, and materials prepared by instructors. Another replied that they used materials they had worked themselves, job planning sheets, NRECA supplementary programs, materials worked up in other states, accident bulletins, and numerous text books. Another replied that they used job procedure manuals, line maintenance manuals, supervisory training manuals, conference materials, basic electricity, visual demonstrations of electrical equipment, accident reports, field problems, and many others. The course of study developed by the Training Advisory committee supplemented by selected references and texts were used by some. Another replied that they used accident reports, job descriptions, new materials and methods. Another replied that they used anything they could get. They make a yearly outline of their programs and topics and make up their itinerary using one or two topics from this outline. Another replied that they used the materials published from the Oklahoma A & M College, and material from industries. Another replied that they used the Oklahoma, Texas, Florida, Colorado, Kentucky, and Oregon programs. This material can be secured from the state supervisor of the Trade and Industrial Education in the above states. This material is rearranged to apply to their program. Another replied that they used safety manuals, job specifications, job training manuals, film slides, charts, graphs, mock-ups, accident reports, trade manuals, and periodicals. Another replied that they used Kirk Lineman Handbook, Oklahoma text, material developed in their own program. Another replied that they used the Crow Electrical Experiment Kit, questionnaires on driving laws, safety manuals, prepared lesson assignments for linemen, and charts.

17. ARE TRAINING SESSIONS PLANNED IN ADVANCE?

Forty-seven replied "yes".

100% of the respondents replied in the affirmative.

18. PERCENT OF TIME DEVOTED TO GROUP INSTRUCTION?

Five replied 100%, one replied 99%, four replied 95%, six replied 90%, one replied 85%, two replied 80%, four replied 75%, eleven replied 50%, thirteen replied 40%, four replied 33 1/3%, one replied 30%, three replied 25%, and two replied 10%. One said 2½ hours to 4 hours per meeting.

Question number eighteen can be tabulated as follows:

Number of replies	Percent of time devoted to group instruction	Totals
5	100%	500
1	99%	99
4	95%	380
6	90%	540
1	85%	85
2	80%	160
4	75%	300
11	50%	550
13	40%	520
4	33 1/3%	133.33
1	30%	30
3	25%	75
2	10%	20
2	2½-4 Hrs. (45%)	45
<hr/> 59		<hr/> 3,437.33

National average for percent of time spent in group instruction. 59.25%.

18A. PERCENT OF TIME DEVOTED TO INDIVIDUAL INSTRUCTION?

Seven did not reply, two replied 90%, three replied 66 2/3%, one replied 60%, nine replied 50%, one replied 70%, one replied 75%, six replied 25%, two replied 20%, one replied 15%, six replied 10%, four replied 5%, and one replied that 1% of the time was devoted to individual instruction. One said that a very small amount of the time was spent in individual instruction. One said that they did not know. One replied approximately three hours as they thought desirable.

Question eighteen "A" is tabulated as follows:

Number of replies	Percent of time devoted to individual instruction	Totals
2	90%	180
3	66 2/3%	199.99
1	60%	60
9	50%	450
1	70%	70
1	75%	75
6	25%	150
2	20%	40
1	15%	15
6	10%	60
4	5%	20
1	1%	1
1	3 Hrs. (40%)	40
<hr/> 38		<hr/> 1,360.99

National average for percent of time spent in individual instruction. 35.81%.

CHAPTER IV

SPECIAL TRAINING PROGRAMS

Special Training Programs are distinguished from the regular training programs in that they are special short courses conducted to train in limited and specific technical areas. These special training short courses and conferences are usually of from one to two days, to one to two weeks in length, and are designed to deal with only one subject, and closely related subjects.

19. DO YOU CONDUCT SPECIAL SHORT COURSES IN CONNECTION WITH YOUR JOB TRAINING AND SAFETY PROGRAM?

Thirty-five replied "yes", seven replied "no", and three replied that plans are under way for more short courses. One said "No, to some extent. Not specifically now, but plan to get into short courses soon." One said "Yes, infrequently."

36 - Yes

9 - No

20. ARE SPECIAL SHORT COURSES CONDUCTED AS STATEWIDE MEETINGS?

Eleven did not answer, twenty-one replied "yes", and eleven replied "no." One replied that at their annual meeting, the annual general short course is conducted as a statewide meeting. Two said conference and supervisor training are conducted as statewide meetings. One said specialized schools such as watt hour meter schools, etc., are conducted as statewide meetings.

20B. ARE SPECIAL SHORT COURSES CONDUCTED AS DISTRICT MEETINGS?

Twenty-five replied "yes", seven replied "no", and eleven did not answer. One reply was, "We use both district and individual cooperative meetings." Another said that superintendent short courses are conducted as district meetings. Two replied the greater percent of the short courses were conducted as district meetings. One said usually about four or five cooperatives combine together for short courses.

20C. ARE SPECIAL SHORT COURSES CONDUCTED AS INDIVIDUAL COOPERATIVES?

Twenty replied "yes", ten replied "no", and fourteen did not answer. One reply was that their hot-stick training was conducted as individual cooperative meetings. One replied that the Job Training and Safety meetings were conducted as individual cooperative meetings.

20D. ARE SPECIAL SHORT COURSES CONDUCTED AS OTHERS?

Twenty-one replied that they had no other sources, eighteen did not answer, and one replied that the state university conducted meter short courses annually. One said that technical courses on transformers, oil circuit reclosers, regulators, etc., were conducted by manufacturers service and repair men. One replied that courses were conducted at state schools of science for school students.

Are special short courses conducted as:	Yes	No	Did not answer
Statewide meetings	21	11	11
District meetings	25	7	11
Individual cooperatives	20	10	14
Others		21	18

20E. HOW OFTEN ARE SHORT COURSES CONDUCTED?

Two replied "none", and eight did not answer. There were nine replies of one or two short courses per year, nine of three to four short courses per year, seven replied "as needed", four replied "on demand only", three replied "at irregular intervals", one replied that short courses were conducted monthly, and there was one reply that they conducted four short courses in the past six years.

34 - Yes 2 - None 8 - Did not answer

Of the thirty-four "yes" answers;

9 conduct 1-2 short courses per year.

9 conduct 3-4 short courses per year.

7 conduct short courses as needed.

- 4 conduct short courses on demand only.
- 3 conduct short courses at irregular intervals.
- 1 conducts short courses monthly.
- 1 conducted four short courses in past six years.

20F. WHAT KIND OF CERTIFICATES DO YOU ISSUE ON THE COMPLETION OF A SPECIAL SHORT COURSE?

Twenty replied "none", four did not reply, six replied certificates issued by the State Board for Vocational Education, three replied a certificate showing the course completed satisfactorily with the persons name and number of hours of the course, two replied a regular trade extension certificate was issued, and three replied that combined state college and state department of education participation certificates were issued. Some other typical replies were: regular vocational school certificates, American Red Cross First Aid certificates, certificates issued seldom if at all, and another replied no certificate was issued but a record was made of the students progress.

16 - Yes 20 - None 4 - Did not answer

The sixteen "yes" replies listed the following kinds of certificates:

- 6 State Board for Vocational Education certificates.
- 3 Completion certificates.
- 2 Regular trade extension certificates.
- 3 Combined State College and State Department for Trade and Industrial Education certificates.
- 1 Regular Vocational School certificates.
- 1 American Red Cross first-aid certificates.

20G. ARE SHORT COURSES LIMITED TO COOPERATIVE PERSONNEL?

Nineteen replied "yes", twenty replied "no", and seven did not answer. One said, "Yes, with the exception of meter short courses."

19 - Yes 20 - No 7 - Did not answer

20H. HOW ARE SHORT COURSES FINANCED?

Ten did not answer this question. Fourteen replied by the Statewide Organization and the individual cooperative. Thirteen replied that they were financed the same as the regular program. Seven replied that the State Department for Vocational Trade and Industrial Education financed the short courses, and two replied that it was a combination of funds from the Statewide Organization and from the State Department for Trade and Industrial Vocational Education.

How are short courses financed:

Did not answer	10
Statewide Organization and individual cooperatives	14
Same as regular programs	13
State Department for Trade and Industrial Education	7
Statewide and Trade and Industrial Education	2

20I. SUBJECTS COVERED IN SHORT COURSES? (METER SCHOOL)

Twenty-three replied "yes", nine replied "no", and sixteen did not answer.

20J. SUBJECTS COVERED IN SHORT COURSES? (TRANSFORMER SCHOOL)

Thirty-five replied "yes", three replied "no", and ten did not answer.

20K. SUBJECTS COVERED IN SHORT COURSES? (OPERATION AND MAINTENANCE SCHOOL)

Twenty-seven replied "yes", three replied "no", and seventeen did not answer.

20L. SUBJECTS COVERED IN SHORT COURSES? (HOT-STICK SCHOOL)

Thirty replied "yes", seven replied "no", and eleven did not answer.

20M. SUBJECTS COVERED IN SHORT COURSES? (FIRST AID SCHOOL)

Twenty-five replied "yes", seven replied "no", and fifteen did not answer.

20N. SUBJECTS COVERED IN SHORT COURSES? (OTHERS)

Five replied "none", and eighteen did not answer. Some other replies to this question were: nine replied that they run foreman and supervisor conferences, seven that they held human relations schools, and seven that they held schools on oil circuit reclosers, oil circuit breakers, and sectionalizers. Two had public expressions, two had plant instructors schools, and two for waste control. Two for safety, two for regulators, three for capacitors, one on TV interference, two on lineman climbing, one on job procedures, and one for psychology.

Subjects covered in short courses:

	YES	NO	DID NOT ANSWER
Meter School	23	9	16
Transformer Schools	35	3	10
Operation and Maintenance	27	3	11
Hot-Stick Schools	30	7	11
First-Aid Schools	25	7	15
Others	41	5	18

The forty-one "yes" answers to the question of other subjects covered as short courses can be tabulated as follows:

Foreman and supervisor conferences	9
Human relations schools	7
Oil circuit breaker, Oil circuit recloser and sectionalizer schools	7
Public expression schools	2
Plant instructors schools	2
Waste control schools	2
Safety short courses	2
Voltage regulator short courses	2
Capacitor short courses	3

Television interference short course	1
Lineman climbing short courses	2
Job procedures short courses	1
Psychology short course	1

21. ARE SUPERVISORY CONFERENCES CONDUCTED?

Thirty-five replied "yes", and ten replied "no". It is to be assumed that the nine replies in the above question where they commented that they ran foreman and supervisory conferences are a part of the thirty-five "yes" answers to this question. There is one who said that supervisory conferences have been held but not for the past two years. They hope to return to this program soon. Another said that supervisory conferences are run occasionally. A third replied that only one foreman conference once a year was held.

35 - Yes

10 - No

22. IF THE ANSWER TO 21 WAS YES, FOR WHOM? (MANAGERS)

Fifteen replied "yes", twelve replied "no", and twenty did not answer.

22B. IF THE ANSWER TO 21 WAS YES, FOR WHOM? (ASSISTANT MANAGERS)

Fourteen replied "yes", thirteen replied "no", and twenty did not answer..

22C. IF THE ANSWER TO 21 WAS YES, FOR WHOM? (ENGINEERS)

Eight replied "yes", twenty replied "no", and twenty did not answer.

22D. IF THE ANSWER TO 21 WAS YES, FOR WHOM? (SUPERINTENDENTS)

Thirty-two replied "yes", one replied "no", and fifteen did not answer.

22E. IF THE ANSWER TO 21 WAS YES, FOR WHOM? (FOREMEN)

Thirty-eight replied "yes", there were no "no" answers, and ten did not answer.

22F. IF THE ANSWER TO 21 WAS YES, FOR WHOM? (LINEMEN)

Nineteen replied "yes", thirteen replied "no", and sixteen did not reply.

22G. IF THE ANSWER TO 21 WAS YES, FOR WHOM? (OTHERS)

Four replied "yes", twelve replied "no", and twenty-three did not reply. One said that office managers had one, and one said for groundmen and tree clearing crews. Three replied for directors and office personnel. One said for foreman, superintendents, mostly linemen, and others who come. Another replied for prospective foremen.

Are Supervisory Conferences conducted for:

	YES	NO	DID NOT ANSWER
Managers	15	12	20
Assistant Managers	14	13	20
Engineers	8	20	20
Superintendents	32	1	10
Foremen	38	0	10
Linemen	19	13	16
Others	4	12	23

Under the classification of others:

Office managers conference

Groundman and tree clearing conference

Directors and office personnel

Foremen, Superintendents and Linemen conference

Prospective foremen conference

23. BY WHOM ARE SUPERVISORY TRAINING CONFERENCES CONDUCTED?

Nine did not answer. Of those who did answer, twenty-one indicated that the conferences were conducted by the Trade and Industrial Education and Vocational Education personnel. Ten said that they were conducted by the Job Training and Safety instructors. Some other replies were: top men in the United States, specialists from Rural Electric Administration, out-of-state specialists, and one other said by management and local school district, and another by manufacture representatives and vocational instructors.

Trade and Industrial Education personnel	21
Job Training and Safety Instructors	10
Top men in United States	1
Specialist from Rural Electrification Administration	1

Others were: out-of-state specialists, management and local school district, manufacture representatives, and vocational instructors.

24. WHAT OTHER MEANS ARE USED TO GET INFORMATION TO WORKMEN?

Thirteen did not answer, five replied that they used no other means of getting information to their workmen, ten replied that they used monthly publications or newsletters, and two replied that they used superintendents and foremen conferences. In other replies accident reports were mentioned, work with the men in the field, and bulletins from insurance companies, Rural Electrification Administration, and manufactures. Other instructors replied that they used lesson sheets issued by the instructor and mimeographed material put out by the state organizations.

CHAPTER V

SUMMARY AND CONCLUSIONS

In making this study of the Plan of Operation of Job Training and Safety programs in the United States, many interesting findings have been made which the writer believes will be enlightening and helpful to those involved in the promotion, operation, and supervision of the Rural Electric job training and safety programs in the United States.

The questionnaire method was used in securing data from State Supervisors of Trade and Industrial education and from Rural Electric Job Training and Safety instructors from the various states having a job training and safety program.

The study reveals that thirty-four of the forty-eight states maintain Rural Electric Job Training and Safety programs. Of these thirty-four states 50% have more than one instructor. The national average of Rural Electric Job Training and Safety instructors per state is 1.66.

Instructors are doing and are held responsible for job training, safety training, and related instruction training for the employees of the Rural Electric cooperatives in each state reporting.

The amount of time spent in and the emphasis placed on the three areas of training, viz., job training, safety training, and related instruction training, varies considerably in the states reporting. Job training as such varies from 0 to 75%, safety training varies from 0 to 100%, and related

training varies from 0 to 50%. The national average for the three areas is as follows: job training 43.2%, safety training 37.2%, and related instruction training 19.5%. The lack of uniformity as shown by these figures is due in part to the differences in the interpretation of the terms used to represent the different areas of instruction. Several states consider job training to include safety, and do not recognize safety as a separate area of training. There is also a difference of opinion in the interpretation of what is included in related instruction training.

In the matter of lines of responsibility, 70% of the respondents indicated that the Job Training and Safety instructors are directly responsible to the State Departments of Trade and Industrial Education, 18% indicated that they were directly responsible to the Statewide Rural Electric Organization, and 12% indicated a direct responsibility to some Educational Institution.

The financing of the various programs is as follows: the various State Departments of Trade and Industrial Education finance 53.9% of the programs, the Statewide Rural Electric Cooperative Organizations finance 43.0% of the programs, and Educational Institutions finance 3.1% of the programs.

Over 88.0% of the cooperatives in the states reporting participate in the job training and safety programs. The individual cooperatives are represented by an advisory committee usually on a statewide basis which assists the instructor in planning the scope and content of the various programs. A

typical committee based on the survey would consist of 3.48 Managers, 1.84 Foremen, 1.54 Board members and .87 others.

VITA

John E. Lane
candidate for the degree of
Master of Science

Thesis: PLAN OF OPERATION OF RURAL ELECTRIC JOB TRAINING
AND SAFETY PROGRAMS

Major: Trade and Industrial Education

Biographical and Other Items:

Born: December 10, 1910 at Liberal, Kansas

Undergraduate Study: Kansas State College of Agriculture and Applied Sciences, 1932-33, 1939, 1948-50

Graduate Study: O. A. M. C., 1950-55

Experiences: Farming, 1928-32; Home Owners Loan Corporation. 1934-37, Power Line Construction, 1937-39, 1941-43; Army, 89th Heavy Construction Bn., Signal Corps, U. S. and Okinawa, 1943-47; Rural Electric Job Training and Safety Supervisor, Oklahoma A. and M. College, 1950-55.

Member of Iota Lambda Sigma, American Society of Safety Engineers, Registered Professional Engineers, Kansas.

Date of Final Examination: May 14, 1955.

APPENDIX A

April 17, 1954

Dear Sir:

This study of the operation of job training and safety training programs for Rural Electric Cooperatives in the United States is being made as part of the requirements for my Master's degree in Trade and Industrial Education. The purpose of the study is to determine present practices in the various states concerning the scope and content of job and safety training programs and methods of operation.

Your prompt response in completing and returning this questionnaire will be very much appreciated. Please return the completed questionnaire to:

John E. Lane, Supervisor, R. E. Job
Training and Safety
School of Technical Training
Oklahoma A & M College
Stillwater, Oklahoma

QUESTIONNAIRE

1. Do you have a Job Training and Safety Instructor in charge of training in connection with the Statewide REA organization?

Yes _____, No _____, If more than one, how many _____?

2.

	Safety Training	Job Training	Related Training
Is the instructor doing			
3. Who is responsible for			
4. Percent of time spent in			
5. To whom is the instructor directly responsible? _____
- _____

6. How is the Job Training and Safety program financed?

Department of Vocational Education: _____ %

Statewide REA organization: _____ %

Educational Institution: _____ %

Others: _____ % Name of others who aid the program: _____

7. Does the instructor make daily reports? _____ Weekly Reports? _____

Monthly Reports? _____ None? _____

8. Who receives the instructors reports: Individual Cooperatives? _____

Advisory Committee? _____, Statewide organization? _____

Educational Institution? _____, State Department of Vocational

Education? _____.

9. What professional assistance does your instructor receive from:

a. State Department for Vocational Education? _____

b. Statewide REA organization? _____

c. State Educational Institutions? _____

d. Others (Mfg. Co., Insurance Co., etc.) _____

10. What is the average length of each visit to the local Co-op? Hrs. _____

11. What is the average number of visits to each Cooperative per year? _____

12. What is the number of RE Cooperatives in your state? _____

13. How many of the above Cooperatives participate in your JT&S program? _____

14. Does your State have an RE Statewide Advisory Committee? Yes _____ No _____

15. If the answer to 14 is Yes, what is the composition of the Committee?

Managers, No. _____, Foreman, No. _____, Board Members, No. _____,

Others, No. _____.

16. What instructional materials are used in your training program? _____

(Please attach copies if available)

17. ARE TRAINING SESSIONS PLANNED IN ADVANCE? Yes _____, No _____.

18. Percent of time devoted to group instruction, _____?

Percent of time devoted to individual instruction, _____?

19. Do you conduct special short courses in connection with your Job Training and Safety program? Yes _____, No _____.

20. Are special short courses conducted as:

a. Statewide Meetings? _____

b. District Meetings? _____

c. Individual Cooperatives? _____

d. Others? _____

e. How often are short courses conducted? _____

f. What kind of certificates do you issue on the completion of a special short course? _____

g. Are short courses limited to cooperative personnel? Yes _____ No _____

h. How are short courses financed? _____

i. Subjects covered in short courses? (Check) Meter Schools? _____

Transformer Schools' _____, Operation and Maintenance Schools' _____,

Hot-Stick Schools _____, First Aid Schools _____, List other short

courses. _____

21. Are Supervisory Conferences conducted? Yes _____ No _____

22. If the answer to 21 was Yes, for whom: Managers _____ ? Assistant
Managers _____ ? Engineers _____ ? Superintendents _____ ?
Foremen _____ ? Linemen _____ ? Others _____ ?

23. By whom are Supervisory Training Conferences conducted? _____

24. What other means are used to get information to workmen: _____

25. Do you wish a summary of this study when completed? Yes _____ No _____

Name _____

Title _____

Address _____

Date _____ 1954

**THESIS TITLE: PLAN OF OPERATION OF RURAL ELECTRIC JOB
TRAINING AND SAFETY PROGRAMS**

AUTHOR: John E. Lane

THESIS ADVISER: Prof. Glenn Smith

The content and form have been checked and approved by the author and thesis adviser. Changes or corrections in the thesis are not made by the Graduate School office or by any committee. The copies are sent to the bindery just as they are approved by the author and faculty adviser.

TYPIST: Mrs. George W. A. Mahoney