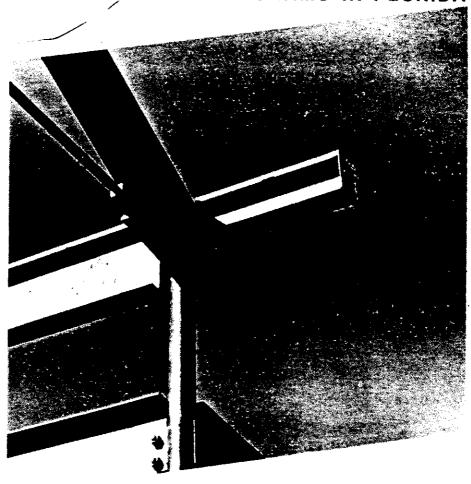
## **TECHNICAL PUBLICATION NO. 47**

AN ANALYSIS OF CARPENTRY

APPRENTICESHIP PROGRAMS IN FLORIDA



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## SUMMARY OF TECHNICAL REPORT NUMBER 47

AN ANALYSIS OF THE CARPENTRY APPRENTICESHIP TRAINING PROGRAM IN FLORIDA

BY
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The School of Building Construction at the University of Florida, with the cooperation of the Building Construction Industry Advisory Committee, has implemented an important study into current apprenticeship training programs for carpenters in the state of Florida. Graduate students, under the guidance of a Graduate Committee, compiled a number if in-depth surveys to determine, or define:

- 1. The obstacles to the adequate supply of skilled artisans.
- 2. Why training programs are not meeting the industry's need for labor.
- 3. Recruitment methods.
- 4. Training offered.
- 5. Employment rates of graduates.

Using the data gathered in the survey, recommendations were made to alleviate the problems faced in the training of an adequate supply of construction craftsmen. This research report could well be of great use to the construction industry in the state of Florida.

Formal training programs were found to be favorable sources of new carpenters. The two most popular are vocational and apprenticeship training programs. Apprenticeship programs are offered through sponsoring employers. This survey targeted four major groups of homebuilders: Associated Builders and Contractors (ABC), Associated General Contractors (AGC), Florida Home Builders Association (FHBA), and the United Brotherhood of Carpenters and Joiners of America. These plus several other smaller groups were contacted to acquire the data used to confront the issues.

Eighty-three percent of those answering agreed that there was indeed a carpenter shortage. The methods most commonly used by training programs to attract new apprentices were advertisement in local newspapers and journals. However, the average age of beginning students indicated that carpentry was not the first choice of many. All saw a need for a more aggressive campaign to attract future carpenters due to the decline in the labor pool caused by lower birth rates in recent decades.

One difficulty in recruiting is the type of work required. Also

the starting pay for beginning journeymen is considered a disadvantage. Florida's carpentry wages, when compared to twenty-eight major U.S. cities was found to be decisively low. Jacksonville was 25th on the list with an average pay of \$15.90 per hour. Wages state-wide closely follow local cost of living, and non-union wages are consistently lower than union wages. Not surprisingly, non-union workers feel that wages should be higher. Union programs have a higher rate of pay and the highest enrollment in training programs.

Although union apprenticeship programs have a higher enrollment, the training quality among the various training programs was considered comparatively equal. Most programs offer a four year apprenticeship with a maximum of 8000 hours. The training includes an introduction to the trade, use of tools, layout, form work, framing, exterior and interior finishing, and hardware fitting. State and Federal requirements dictate the need for 144 hours of classroom instruction in addition to the on-the-job training. Most of the programs concurred that quality and proper training were the greatest factors in job placement. Of those reponding, 56% believed that their training organizations were fulfilling the need for trained carpenters. The average time lag for job placement in the study was twenty-five days. The apprenticeship programs surveyed report that 89% of their graduates have found full-time employment.

There is a shortage of skilled carpenters. It was determined that recruitment practices must be active and aggressive. The study indicates that the need for skilled craftsmen will parallel the growth of the state. How can apprenticeship programs continue to meet the demands of Florida's construction industry? Communication between training programs and home builders is considered imperative. The survey indicates that the best method of increasing the communication between the groups would be to hold formal meetings. Communication between home builders and training centers appears to be the key to keeping Florida's construction industry on top of the market.

Copies of this report can be obtained by contacting:

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## TABLE OF CONTENTS

F	PAGE
LIST OF TABLES	iii
LIST OF FIGURES	. x
CHAPTER I INTRODUCTION	
Overall Study	. 1 . 3 . 6 . 7
Building Associations Which Sponsor Carpentry Apprenticeship Programs	18
CHAPTER II THE CONSTRUCTION INDUSTRY IN FLORIDA	26
The Building Construction Industry in Florida	31 32
CHAPTER III METHODOLOGY	
Questionnaire Development	36 39 39
CHAPTER IV COMPARISON OF CURRICULA AND REQUIREMENTS OF PROGRAMS	. 41
CHAPTER V STATISTICAL ANALYSIS	47
Summary of Questionnaire Analysis	. 47 . 49 . 70

CHAPTER V	TI CONC	LUSIONS ANI	RECOM	MENDA	TIONS	i		•	•		100
Recomm	endations.	for Future									10/
APPENDICE	S:										
APPENDIX	A QUES	TIONNAIRE P	ACKAGE								
Buildi Questi Sample	ng Constru onnaire of Follow	Letter from ction, Univ	ersity	of F	lorid	a . • •	• •	•	•	• •	A2
APPENDIX	B DETA	ILED TABLES	OF ST	ATIST	[CAL	ANAI	YSI	S			
ANALYS	IS BY REGI	<u>on</u>									
B-1 B-2 B-3 B-4 B-5	Northwest Southeast	egion Region Region Region Region	• • •	• • •	• •	• •	• •	•	• •	• •	B13 B25
<u>ANALYS</u>	IS BY ASSO	CIATION									
B-6 B-7 B-8 B-9 B-10	Florida Ho Union	d Builders d General C ome Builderunion Prog	ontract s Assoc	ciatio	AGC) n (Fi	 НВА)		•		•	B73 B85 B97
APPENDIX (	C SAMPI	LE CURRICUL	A FROM	EACH	ASSO	CIAT	ION				C1
On the Classro	Job Traini Dom Instruc	ing Hours Co Stion Curri	urricul cula	.a	• • •	• •			• •	•	C1 C8
APPENDIX 1	) FEDER	RAL AND STA	TE APPE	ENTIC	eshii	P ST	AND	ARD:	S		
Apprent Equal E	liceship Pr Imployment	andards for cograms (Times and Opportu	tle 29 unity i	CFR P	art 2	29) ICAS	 hin				
FIORIGE	Rules of	t 30)	ment of	Labo	r and	Emi	$n \log a$	mer	7 <del>†</del> -		
Florida Definit	y, Chapter Statute C ion of a C	: 38C-16 . Chapter 446: Carpenter by	· · · · · · · · · · · · · · · · · · ·	ictio	  narv	of	• . •	•		•	D72
occupat	lonal Titl	.es	• • •	• •	• • •	•,	• •		•	•	D77
BIBLIOGRAE	PHY					_					107

## LIST OF TABLES

Table		P	age
I-1	Population Projections in Florida	•	. 9
1-2	Recommended Work Experience Schedule for the Carpenter Apprentice		15
IV-1	Comparison of Curricula of On the Job Training Hours		42
IV-2	Comparison of Various Requirements for the Four Major Building Associations		45
	TABLES FOR TOTAL POPULATION STATISTICAL ANALYSIS:		
V-1.1	Background Information	•	49
V-1.2	Average Hourly Wages for Each Year of	_	51
	Average Hourly wages for Each feat of Apprenticeship	•	51
V-1.3	OBIDIOD OF WALLES.		
V-1.4	Comparison of Averages of Actual Wages and Opinion of Wages	_	51
	Opinion of wages	•	
V-1.5	Adequacy of Recruiting.	•	
V-1.6	Recruiting Strategies	Ĭ	57
V-1.7	Job Placement Factors	•	58
V-1.8	Time Lag for Job Placement Between Jobs	•	•
V-1.9	Job Placement Factors after Completion of		59
	Apprenticeship Training Program	•	55
V-1.10	Percentage of Graduates with Full-Time		60
	Carpentry Jobs	•	60
V-1.11	Average Hourly Wage Upon Graduation	•	00
V-1.12	National Hourly Wage Scales in Construction		62
	for Carpenters	•	63
V-1.13	Importance of Skills	•	
V-1.14	Opinion of Carpenter Shortage	•	_
V-1.15	Dogree of Specialization in Carpentry	•	93
V-1.16	Province of Performance of Carpentry Tasks	•	99
V-1.17	Apprenticeship Programs' Opinion of Licensing		
	Carpenters	•	66
V-1.18	Apprentice/industry Communication	•	
V-1.19	Communication Levels	•	69
	TABLES FOR STATISTICAL ANALYSIS BY REGION:		
V-2.1	Background Information	•	72
V-2.2	Average Hourly Wage of Individual Who Has Just Graduated from a Carpentry Apprenticeship Program	ı .	73

V-2.3	Average Time Lag for Placing an Apprentice from One Apprenticeship Job to Another	
V-2.4	Apprenticeship Job	80
V-2.5	Programs and Have Full-Time Carpentry Jobs Percentage of Apprenticeship Programs who	80
V-2.6	Agree with the View of a Projected Shortage of Skilled Carpenters in the Coming Years	83
	Specialization which has Entered the Field of Carpentry	82
V-2.7	Percentage of Apprenticeship Programs who Feel That There Would Be Better Skilled Carpenters If	
V-2.8	Licensing Were Required	82 83
	TABLES FOR STATISTICAL ANALYSIS BY ASSOCIATION	
V-3.1	Background Information	87
V-3.2	Average Hourly Wage of Individual Who Has Just	•
V-3.3	Graduated from a Carpentry Apprenticeship Program .	88
V-3.3	Average Time Lag for Placing an Apprentice	
	from One Apprenticeship Job to Another Apprenticeship Job	95
V-3.4	Percentage of Apprentices who Completed Training	9:
		95
V-3.5	Percentage of Apprenticeship Programs who	<i></i>
	Agree with the View of a Projected Shortage of	
	Skilled Carpenters in the Coming Years	96
V-3.6	Apprenticeship Program's Opinion of the Degree of Specialization which has Entered the Field	
V-3.7	of Carpentry	97
. 3.,	Percentage of Apprenticeship Programs who Feel That There Would Be Better Skilled Carpenters If	
		97
V-3.8		98
	DETAILED STATISTICAL TABLES IN APPENDIX B:	
	ANALYSIS BY REGION	
	CENTRAL REGION:	
B-1.1	Background Information	B1
B-1.2	Average Hourly Wage for Each Year of Apprenticeshin	в2
B-1.3 B-1.4	Opinion of Wages	B2
D-1.4	Oninion of Wages	
B-1.5		B3
B-1.6		В3 В4
B-1.7		В5

B-1.9 Job Placement Factors After Completion of Apprenticeship Training Program		Time Lag for Job Placement Between Jobs
### Apprenticeship Training Program	B-1.8	Time Lag for Job Placement Detween Jobs
B-1.10 Percentage Or Graduates with Full Services of Carpentry Jobs. Garpentry Jobs. Garpentry Jobs. Garpentry Jobs. Garpentry Jobs. B8 B-1.12 Importance of Skills. B9 B-1.13 Opinion of Shortage B10 B-1.14 Degree of Specialization in Carpentry Tasks B11 B-1.15 Broadness of Performance of Carpentry Tasks B11 B-1.16 Apprenticeship Programs' Opinion of Licensing Carpenters. B11 B-1.17 Apprentice/Industry Communication B12 B-1.18 Communication Levels. B12 B-1.18 Communication Levels. B13 B-2.2 Average Hourly Wage for Each Year of Apprenticeship B14 B-2.3 Opinion of Wages. B14 B-2.4 Comparison of Averages of Actual Wages and Opinion of Wages. B15 B-2.6 Recruiting Strategies B16 B-2.7 Job Placement Factors Services B17 Job Placement Factors Services B18 B-2.9 Job Placement Factors Services B18 B-2.10 Percentage of Graduates with Full-Time Carpentry Jobs. B20 B-2.11 Average Hourly Wage Upon Graduation B21 B-2.12 Importance of Skills. B22 B-2.13 Opinion of Shortage B22 B-2.14 Degree of Specialization in Carpentry Tasks B23 B-2.15 Broadness of Performance of Carpentry Tasks B22 B-2.16 Apprenticeship Programs' Opinion of B24 B-2.17 Apprenticeship Programs' Opinion of B24 B-2.18 Communication Levels. B24 B-2.19 Background Information. B24 B-2.17 Apprenticeship Programs' Opinion of B24 B-2.18 Communication Levels. B24 B-3.1 Background Information. B24 B-3.2 Average Hourly Wage for Each Year of Apprenticeship B26 B-3.3 Opinion of Averages of Actual Wages and Opinion of Wages. B24 B-3.4 Comparison of Averages of Actual Wages and Opinion of Wages. B25 B-3.5 Adequacy of Recruiting. B26 B-3.6 Recruiting Strategies B28 B-3.6 Recruiting Strategies B28 B-3.6 Recruiting Strategies B28 B-3.7 Adequacy of Recruiting. B28 B-3.8 Adequacy of Recruiting. B28 B-3.6 Recruiting Strategies B28	B-1.9	Annual transfer Training Program
Carpentry Jobs.	n_1 10	Percentage of Graduates with Full-Time
B-1.12 Importance of Shirls	B-1.10	Carpentry Jobs
B-1.12 Importance of Shirls	B-1 11	Average Hourly Wage Upon Graduation
B-1.13 Opinion of Shortage	_	
B-1.14 Degree of Specialization in Carpentry Tasks B11 B-1.15 Broadness of Performance of Carpentry Tasks B11 B-1.16 Apprenticeship Programs' Opinion of Licensing Carpenters. B11 B-1.17 Apprentice/Industry Communication B12 B-1.18 Communication Levels. B12  NORTHEAST REGION:  B-2.1 Background Information. B13 B-2.2 Average Hourly Wage for Each Year of Apprenticeship B14 B-2.3 Opinion of Wages. B14 B-2.4 Comparison of Averages of Actual Wages and Opinion of Wages. B15 B-2.5 Adequacy of Recruiting. B15 B-2.6 Recruiting Strategies B16 B-2.7 Job Placement Factors After Completion of Apprenticeship Training Program B19 B-2.9 Job Placement Factors After Completion of Apprenticeship Training Program B19 B-2.10 Percentage of Graduates with Full-Time Carpentry Jobs. B20 B-2.11 Average Hourly Wage Upon Graduation B20 B-2.12 Importance of Skills. B21 B-2.13 Opinion of Shortage B22 B-2.14 Degree of Specialization in Carpentry B22 B-2.15 Broadness of Performance of Carpentry Tasks B23 B-2.16 Apprenticeship Programs' Opinion of Licensing Carpenters. B23 B-2.17 Apprenticeship Programs' Opinion of B24 B-2.18 Communication Levels. B24 B-2.19 Background Information. B24 B-2.10 Degree of Specialization of Apprenticeship B26 B-2.11 Average Hourly Wage for Each Year of Apprenticeship B26 B-3.1 Background Information. B24 B-3.2 Average Hourly Wage for Each Year of Apprenticeship B26 B-3.3 Opinion of Wages. B26 B-3.4 Comparison of Averages of Actual Wages and Opinion of Wages. B27 B-3.5 Adequacy of Recruiting Strategies B28 B-3.6 Recruiting Strategies B29		
B-1.16 Broadness of Performance of Carpentry Tasks B-1.16 Apprenticeship Programs' Opinion of Licensing Carpenters		
B-1.16 Apprenticeship Programs Opinion of Licensing Carpenters	-	Propinge of Performance of Carpentry lasks
Licensing Carpenters		Apprenticeship Programs' Opinion of
B-1.17 Apprentice/Industry Communication	2 112	- 5 <sup>-</sup>
B-1.18   Communication Levels.   Section   S	B-1.17	Apprentice/Industry Communication
B-2.1 Background Information		Communication Levels
B-2.2 Average Hourly Wage for Each fear of Apprenticeship Programs  B-2.3 Opinion of Wages.  B-2.4 Comparison of Averages of Actual Wages and Opinion of Wages.  B-2.5 Adequacy of Recruiting.  B-2.6 Recruiting Strategies  B-2.7 Job Placement Factors  B-2.8 Time Lag for Job Placement Between Jobs.  B-2.9 Job Placement Factors After Completion of Apprenticeship Training Program.  B-2.10 Percentage of Graduates with Full-Time  Carpentry Jobs.  B-2.11 Average Hourly Wage Upon Graduation.  B-2.12 Importance of Skills.  B-2.13 Opinion of Shortage.  B-2.14 Degree of Specialization in Carpentry  B-2.15 Broadness of Performance of Carpentry Tasks  B-2.16 Apprenticeship Programs' Opinion of  Licensing Carpenters.  B-2.17 Apprentice/Industry Communication  B23  B-2.18 Communication Levels.  NORTHWEST REGION:  B-3.1 Background Information.  B25  B-3.2 Average Hourly Wage for Each Year of Apprenticeship B26  B-3.3 Opinion of Wages.  B-3.4 Comparison of Averages of Actual Wages and  Opinion of Wages.  B-3.5 Adequacy of Recruiting.  B28  B29  B-3.6 Recruiting Strategies  B29		NORTHEAST REGION:
B-2.2 Average Hourly Wage for Each fear of Apprenticeship Programs  B-2.3 Opinion of Wages.  B-2.4 Comparison of Averages of Actual Wages and Opinion of Wages.  B-2.5 Adequacy of Recruiting.  B-2.6 Recruiting Strategies  B-2.7 Job Placement Factors  B-2.8 Time Lag for Job Placement Between Jobs.  B-2.9 Job Placement Factors After Completion of Apprenticeship Training Program.  B-2.10 Percentage of Graduates with Full-Time  Carpentry Jobs.  B-2.11 Average Hourly Wage Upon Graduation.  B-2.12 Importance of Skills.  B-2.13 Opinion of Shortage.  B-2.14 Degree of Specialization in Carpentry  B-2.15 Broadness of Performance of Carpentry Tasks  B-2.16 Apprenticeship Programs' Opinion of  Licensing Carpenters.  B-2.17 Apprentice/Industry Communication  B23  B-2.18 Communication Levels.  NORTHWEST REGION:  B-3.1 Background Information.  B25  B-3.2 Average Hourly Wage for Each Year of Apprenticeship B26  B-3.3 Opinion of Wages.  B-3.4 Comparison of Averages of Actual Wages and  Opinion of Wages.  B-3.5 Adequacy of Recruiting.  B28  B29  B-3.6 Recruiting Strategies  B29		B13
B-2.3 Opinion of Wages.  B-2.4 Comparison of Averages of Actual Wages and Opinion of Wages.  B-2.5 Adequacy of Recruiting.  B-2.6 Recruiting Strategies.  B-2.7 Job Placement Factors.  B-2.8 Time Lag for Job Placement Between Jobs.  B-2.9 Job Placement Factors After Completion of Apprenticeship Training Program.  B-2.10 Percentage of Graduates with Full-Time Carpentry Jobs.  B-2.11 Average Hourly Wage Upon Graduation.  B-2.12 Importance of Skills.  B-2.13 Opinion of Shortage.  B-2.14 Degree of Specialization in Carpentry B-2.15 Broadness of Performance of Carpentry Tasks B-2.16 Apprenticeship Programs' Opinion of Licensing Carpenters.  B-2.17 Apprentice/Industry Communication  B23 B-2.18 Communication Levels.  NORTHWEST REGION:  B-3.1 Background Information.  B24 B-3.2 Average Hourly Wage for Each Year of Apprenticeship B26 B-3.3 Opinion of Wages.  B-3.4 Comparison of Averages of Actual Wages and Opinion of Wages.  B-3.5 Adequacy of Recruiting.  B28 B-3.6 Recruiting Strategies.  B29	B-2.1	Background Information
B-2.4 Comparison of Averages of Actual Wages and Opinion of Wages		Average Hourly wage for Each feat of Approximation B14
Opinion of Wages.  Adequacy of Recruiting.  B-2.6 Recruiting Strategies		
B-2.6 Recruiting Strategles	B-2.4	Comparison of Averages of Actual wages and B15
B-2.6 Recruiting Strategles		Opinion of wages
B-2.7 Job Placement Factors B-2.8 Time Lag for Job Placement Between Jobs		
B-2.8 Time Lag for Job Placement Between Jobs B-2.9 Job Placement Factors After Completion of Apprenticeship Training Program		
B-2.9 Job Placement Factors After Completion of Apprenticeship Training Program		Job Placement Factors
Apprenticeship Training Program  Percentage of Graduates with Full-Time Carpentry Jobs		
B-2.10 Percentage of Graduates With Full-Time Carpentry Jobs	B-2.9	Job Pracement ractors area to bompet and B19
Carpentry Jobs.  B-2.11 Average Hourly Wage Upon Graduation  B-2.12 Importance of Skills.  B-2.13 Opinion of Shortage  B-2.14 Degree of Specialization in Carpentry  B-2.15 Broadness of Performance of Carpentry Tasks  B-2.16 Apprenticeship Programs' Opinion of  Licensing Carpenters.  B-2.17 Apprentice/Industry Communication  B-2.18 Communication Levels.  NORTHWEST REGION:  B-3.1 Background Information.  B-3.2 Average Hourly Wage for Each Year of Apprenticeship B26  B-3.3 Opinion of Wages.  Comparison of Averages of Actual Wages and  Opinion of Wages.  B-3.5 Adequacy of Recruiting.  B-3.6 Recruiting Strategies  B29	10	
B-2.12 Importance of Skills	B-2.10	
B-2.12 Importance of Skills	n n 11	
B-2.13 Opinion of Shortage B-2.14 Degree of Specialization in Carpentry B-2.15 Broadness of Performance of Carpentry Tasks B-2.16 Apprenticeship Programs' Opinion of Licensing Carpenters. B-2.17 Apprentice/Industry Communication B24 B-2.18 Communication Levels.  NORTHWEST REGION:  B-3.1 Background Information. B-3.2 Average Hourly Wage for Each Year of Apprenticeship B26 B-3.3 Opinion of Wages. B-3.4 Comparison of Averages of Actual Wages and Opinion of Wages. B-3.5 Adequacy of Recruiting. B28 B29 B29		
B-2.14 Degree of Specialization in Carpentry B-2.15 Broadness of Performance of Carpentry Tasks		
B-2.15 Broadness of Performance of Carpentry Tasks B-2.16 Apprenticeship Programs' Opinion of Licensing Carpenters		
B-2.16 Apprenticeship Programs Opinion of Licensing Carpenters	_	number of Darformance of Calpentry lasks
Licensing Carpenters.  B-2.17 Apprentice/Industry Communication		
B-2.17 Apprentice/Industry Communication B-2.18 Communication Levels	D 2.10	
B-2.18 Communication Levels	B-2.17	Apprentice/Industry Communication
B-3.1 Background Information		Communication Levels
B-3.2 Average Hourly Wage for Each Year Of Apprenticular B26 B-3.3 Opinion of Wages		
B-3.2 Average Hourly Wage for Each Year Of Apprenticular B26 B-3.3 Opinion of Wages		Background Information
B-3.3 Opinion of Wages  B-3.4 Comparison of Averages of Actual Wages and Opinion of Wages  B-3.5 Adequacy of Recruiting  B-3.6 Recruiting Strategies  B27  B28  B29		
B-3.5 Adequacy of Recruiting		Opinion of Wages
B-3.5 Adequacy of Recruiting		Comparison of Averages of Actual Wages and
B-3.5 Adequacy of Recruiting	B-3.4	Oninion of Wages
B-3.6 Recruiting Strategies	B_3 5	
		Recruiting Strategies
B-3.8 Time Lag for Job Placement Between Jobs		
		Time Lag for Job Placement Between Jobs

B-3.9	Job Placement Factors After Completion of
_	Apprenticeship Training Program
B-3.10	Percentage of Graduates with Full-Time
B-3.11	Carpentry Jobs
B-3.11	Average mourly wage upon Graduation
	Importance of Skills
B-3.13	Opinion of Shortage
B-3.14	Degree of Specialization in Carpentry
B-3.15	Broadness of Performance of Carpentry Tasks
B-3.16	Apprenticeship Programs' Opinion of
	Licensing Carpenters
B-3.17	Apprentice/Industry Communication
B-3.18	Communication Levels
	SOUTHEAST REGION:
B-4.1	Background Information
B-4.2	Average Hourly Wage for Each Year of Apprenticeship B38
B-4.3	Opinion of Wages
B-4.4	Comparison of Averages of Actual Wages and
D 1.1	Comparison of Westages of Actual Wages and
B-4.5	Opinion of Wages
	Adequacy of Recruiting
B-4.6	Recruiting Strategies
B-4.7	Job Placement Factors
B-4.8	Time Lag for Job Placement Between Jobs
B-4.9	Job Placement Factors After Completion of
	Apprenticeship Training Program
B-4.10	Percentage of Graduates with Full-Time
	Carpentry Jobs
B-4.11	Average Hourly Wage Upon Graduation
B-4.12	Importance of Skills
B-4.13	Opinion of Shortage
B-4.14	Opinion of Shortage
	Degree of Specialization in Carpentry
B-4.15	Broadness of Performance of Carpentry Tasks B47
B-4.16	Apprenticeship Programs' Opinion of
	Licensing Carpenters
B-4.17	Applentice/industry communication
B-4.18	Communication Levels
	SOUTHWEST REGION:
B-5.1	Background Information
B-5.2	Average Hourly Wage for Each Year of Apprenticeship B50
B-5.3	Opinion of Wagner
B-5.4	Opinion of Wages
₽-J.4	Comparison of Averages of Actual Wages and
5 E E	Opinion of Wages
B-5.5	Adequacy of Recruiting
B-5.6	Recruiting Strategies
B-5.7	Job Placement Factors
B-5.8	Time Lag for Job Placement Between Jobs
B-5.9	Job Placement Factors After Completion of
	Apprenticeship Training Program

	•
B-5.10	Percentage of Graduates with Full-Time
_	Carpentry Jobs
B-5.11	Average Hourly Wage Upon Graduation
B-5.12	
B-5.13	
B-5.14	
	Broadness of Performance of Carpentry Tasks B59
B-5.15	Apprenticeship Programs' Opinion of
B-5.16	Tipe-sing Corporters
	Apprentice/Industry Communication
B-5.17	Apprentice/Industry Communication
B-5.18	Communication Levels
	ANALYSIS BY ASSOCIATION
	ASSOCIATED BUILDERS AND CONTRACTORS (ABC):
B-6.1	Background Information
B-6.2	The series of the series where the warn year of Applementations and pro-
B-6.3	ominion of Warres
B-6.4	demonstrate of Averages of Actual Wades and
B-0.4	1
B-6.5	Recruiting Strategies
B-6.6	Job Placement Factors
B-6.7	Job Placement Factors
B-6.8	Job Placement Factors
B-6.9	Job Placement Factors After Completion of
	Job Placement Factors After Completion of Apprenticeship Training Program
B-6.10	Percentage of Graduates with Full-Time
	Percentage of Graduates With Full-lime Carpentry Jobs
B-6.11	Average Hourly Wage Upon Graduation
B-6.12	Average Hourly wage opon Graduation
B-6.13	Oninion of Shortage
B-6.14	
B-6.15	Broadness of Performance of Carpentry Tasks B71
	a
B-6.16	$=$ $^{-1}$
- 4 4 5	
B-6.17	Communication Levels
B-6.18	Communication Levels
	ASSOCIATED GENERAL CONTRACTORS (AGC):
	Background Information
B-7.1	
B-7.2	Average Hourty wage for Each feat of April 1841
B-7.3	Opinion of Wages
B-7.4	Comparison of Averages of Actual Wages and
	Opinion of Wages.
B-7.5	Opinion of Wages
B-7.6	
B-7.7	1-4 Dlagomont Mactors
	Job Flacement Paccorent Between Jobs

B-7.9	Job Placement Factors After Completion of
	Apprenticeship Training Program
B-7.10	Percentage of Graduates with Full-Time
•	Carpentry Jobs
B-7.11	Average Hourly Wage Upon Graduation
B-7.12	Importance of Skills
B-7.13	Opinion of Shortage
B-7.14	Degree of Specialization in Carpentry
B-7.15	Broadness of Performance of Carpentry Tasks
B-7.16	Apprenticeship Programs' Opinion of
	Licensing Carpenters
B-7.17	Apprentice/Industry Communication
B-7.18	Communication Lovels
B-7.10	Communication Levels
	FLORIDA HOME BUILDERS ASSOCIATION (FHBA):
B-8.1	Background Information
B-8.2	Average Hourly Wage for Each Year of Apprenticeship B86
B-8.3	Opinion of Wages
B-8.4	Comparison of Averages of Actual Wages and
D 0.4	Oninion of Wagos
B-8.5	Opinion of Wages
	Adequacy of Recruiting
B-8.6	Recruiting Strategies
B-8.7	Job Placement Factors
B-8.8	Time Lag for Job Placement Between Jobs
B-8.9	Job Placement Factors After Completion of
	Apprenticeship Training Program
B-8.10	Percentage of Graduates with Full-Time
	Carpentry Jobs
B-8.11	Average Hourly Wage Upon Graduation
B-8.12	Importance of Skills
B-8.13	Opinion of Shortage
B-8.14	Degree of Specialization in Competent
B-8.15	Degree of Specialization in Carpentry
	Broadness of Performance of Carpentry Tasks B95
B-8.16	Apprenticeship Programs' Opinion of Licensing Carpenters
	Licensing Carpenters
B-8.17	Apprentice/Industry Communication
B-8.18	Communication Levels
	UNION:
B-9.1	Background Information
B-9.2	Average Hourly Wage for Each Year of Apprenticeship B98
B-9.3	Opinion of Wages
B-9.4	Comparison of Averages of Actual Wages and
D 7.4	Oninion of Wages Of Actual Wages and
D 0 E	Opinion of Wages
B-9.5	Adequacy of Recruiting
B-9.6	Recruiting Strategies
B-9.7	Job Placement Factors
B-9.8	Time Lag for Job Placement Between Jobs B102
B-9.9	Job Placement Factors After Completion of
	Apprenticeship Training Program

D 0 10	Percentage of Graduates with Full-Time
B-9.10	Carpentry Jobs
B-9.11	Average Hourly Wage Upon Graduation B104
B-9.12	Average Hourly wage upon Graduation
_	Ominion of Shortage
B-9.13	
B-9.14	Broadness of Performance of Carpentry Tasks B107
B-9.15	Apprenticeship Programs' Opinion of
B-9.16	Apprenticeship Programs' Opinion of Licensing Carpenters
	Licensing Carpenters
B-9.17	Apprentice/Industry Communication. B108
B-9.18	Communication Levels
	OTHER NON-UNION PROGRAMS:
- 10 1	Background Information
B-10.1	Average Hourly Wage for Each Year of
B-10.2	Average hours, ways 101 least the B110
	Apprenticeship
B-10.3	Opinion of wages of Agrual Wages and
B-10.4	
_	Adequacy of Recruiting
B-10.5	Recruiting Strategies
B-10.6	Recruiting Strategies
B-10.7	Job Placement Factors
B-10.8	Time Lag for Job Placement Between Jobs
B-10.9	Job Placement Factors After Completion of
	Apprenticeship Training Program
B-10.10	
	Carpentry Jobs
B-10.11	
B-10.12	
B-10.13	
B-10.14	
B-10.15	Broadness of Performance of Carpentry lasks
B-10.16	Apprenticeship Programs' Opinion of
D-10.10	Ticensing Carpenters
B-10.17	Apprenticeship Programs' Opinion of Licensing Carpenters
B-10.17	Apprentice/Industry communication Levels

### LIST OF FIGURES

Figure		Page
1-1	Scope of Total Research Project	. 2
2-1	Map of Market Regions in Florida	29
3-1	Flow Diagram of Study Methodology	40
5-1.1	Comparison Between Actual Wages and Opinion of Wages of All Programs	
5-2.1	Map of Location of Apprenticeship Programs	53
5-2.2	and Sponsor	71
5-2.3	Apprentice by Region	74
5-2.4	of Wages, Central Region	75
5-2.5	of Wages, Northeast Region	76
5-2.6	of Wages, Northwest Region	77
5-2.7	of Wages, Southeast Region	78
5-3.1	of Wages, Southwest Region	79
5-3.2	Programs in Florida by Association	86
5-3.3	Apprentice by Association	<sub>.</sub> 89
5-3.4	of Wages, Associated Builders & Contractors (ABC) . Comparison Between Actual Wages and Opinion	90
5-3.5	of Wages, Associated General Contractors (AGC) Comparison Between Actual Wages and Opinion	91
5-3.6	of Wages, Florida Home Builders Association (FHBA). Comparison Between Actual Wages and Opinion	92
5-3.7	of Wages, Union	93
J J.,	of Wages, Other Non-union Programs	94

CHAPTER I

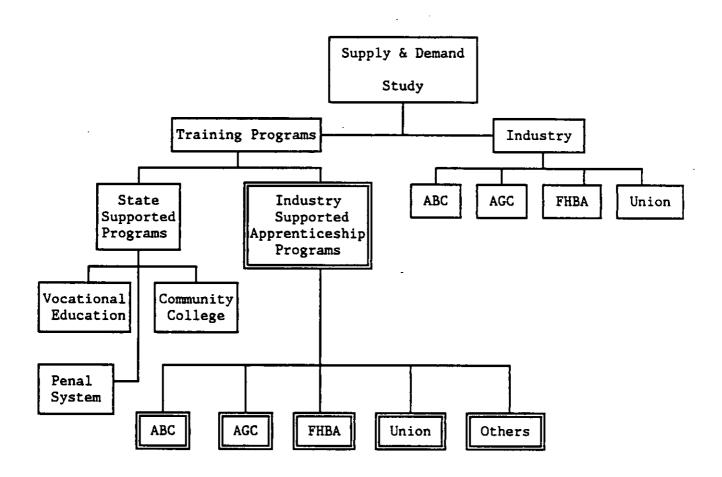
INTRODUCTION

#### CHAPTER ONE

In cooperation with the Building Construction Industry Advisory Committee, the School of Building Construction at the University of Florida is conducting a major study which will examine (1) the current training programs, that train construction craftsmen and determine what are the impediments to an adequate supply of construction craftsmen in the State of Florida (2) determine why these in-flow programs are not fulfilling the Industry's predetermined need of skilled tradesmen and (3) examine the recruitment procedures used by these training programs (4) examine the training offered (5) examine the employment rate of graduates of these programs (6) develop recommendations to meet this demand.

The above major study has been divided into six studies as shown in Figure 1-1. This research report covers training programs, specifically industry supported apprenticeship training which supply skilled carpenters for the construction industry in Florida. The four major construction associations which include Associated Builders and Contractors (ABC), Associated General Contractors (AGC), Florida Home Builders Association (FHBA), and the United Brotherhood of Carpenters and Joiners of America (union programs) and all other individual or group non-union apprenticeship programs will be considered in the analysis of this study.

#### SCOPE OF TOTAL RESEARCH PROJECT



#### LEGEND:

- scope of research for this particular project

ABC - Associated Builders and Contractors

AGC - Associated General Contractors

FHBA - Florida Home Builders Association

Union - United Brotherhood of Carpenters and Joiners of America

Others - Any individual or group program which is non-union and does not belong to any one particular building organization. This group will be referred to throughout this report as "other (non-union)".

Figure 1-1

#### INTRODUCTION

In the United States, a major shift in population patterns is taking place. Presently, the fastest growing states are in the Southwest and Southeast. The U.S. Department of Labor predicts that as many as 2.4 million new construction tradesmen will be needed by the end of the decade. The years 1990-1995 have the potential for bringing significant shortages of skilled manpower within the industry. The adequacy of the work force in the construction industry depends on the number of new workers entering the industry and the volume of construction to take place.

There are several factors which might cause a shortage of skilled craftsman in the construction industry. New tradesmen will be needed to replace those retiring or leaving the industry. Additionally, workers will be needed to fill new job opportunities provided by growth in the industry. Examples of projections of replacement needs by the Construction Labor Research Council are as follows:

"It is estimated that replacement needs will result in annual requirements for at least 180,000 new workers to enter the construction industry over the next 5 to 10 years. This is about six percent of all construction workers. Of these, about 114,000 are skilled craftsmen. The aging of the construction work force over this period is likely to mean that these estimates will be too low by the mid-1990's."

<sup>1</sup> Construction Labor Research Council, October 1985, "Meeting the Future Need for Construction Labor, 1990-1995", (Washington, D.C.), p. 8.

"Even without industry growth, there will be the need to replace an increasing number of workers in an aging labor force during a period of reduced growth in the number of new entrants into the labor market. Likely growth in the construction industry over the same years will make the problem more severe."<sup>2</sup>

The demand for additional workers in construction to keep up with construction growth is not as great as the replacement demands. However, it is still of some significance in dealing with a possible shortage. The Construction Labor Research Council estimates a 2 percent growth rate which will mean an annual demand of 60,000 skilled craftsman nationally.<sup>3</sup>

"Employment in the construction industry, as well as in other industries, has shifted from the Midwest and Northeastern States to the "Sun Belt" States: Florida, Alabama, Mississippi, Louisiana, Texas, New Mexico, Arizona, and California." Florida is one of the leading states experiencing a dramatic population growth. The population of Florida is expected to swell from its present level of 11,657,000 to over 14,765,000 by the year 2,000 as forecasted by the Census Bureau. Florida will be experiencing a growth rate which is four times faster than the

<sup>&</sup>lt;sup>2</sup> Ibid., p. 2.

<sup>&</sup>lt;sup>3</sup> Ibid, p. 8.

<sup>&</sup>lt;sup>4</sup> John Lukasiewicz and John Tschetter, "Employment Trends in the Building Trades," <u>Occupational Outlook Quarterly</u>, Spring, 1983, p. 4.

<sup>5 &</sup>quot;State Overview", <u>Florida Trend</u>, vol. 29, no. 13, Yearbook 1987, p. 53.

Anne H. Shoemyen and Susan S. Floyd, eds., 1986 Florida Statistical Abstract, (Gainesville, Florida: The University Presses of Florida, 1986), p. 37.

nation as a whole and will become the third most populous state following California and Texas. This increase in growth will generate a need for more structures - commercial as well as residential - to accommodate this growth. This will lead to increased construction activity and the creation of many new jobs. This indicates a real concern of a possible shortage of skilled craftsmen in the Florida construction industry.

Considerable growth is expected in several Florida cities. The additional demand for labor with construction of the \$1.2 billion Trident submarine base at Kings Bay, Georgia, 7 which will require thousands of workers over the next ten years and the increased construction activity in Jacksonville, will strain the supply of craftsmen in Northeast Florida. The Orlando-Tampa Bay corridor is another area of increased activity and growth. The Walt Disney World complex is expected to have a large impact on manpower with plans of \$200-\$500 million in new construction. 8 In an interview with Philip H. Bloom, Vice President of business development for Blosam Contractors, Florida Construction Industry Magazine reports that "Florida will continue to be a leader in growth when compared to any state in the United States." Many national construction firms have realized this potential of Florida's positive economic growth and have located offices in

<sup>7 &</sup>quot;Labor Shortage Grips Several Cities", Engineering News Record, 25 September 1986, p. 10.

<sup>8 &</sup>quot;Labor Shortage Grips Several Cities," <u>Engineering News</u> Record, 25 September 1986, p. 11.

Florida to capitalize on this opportunity.9

#### SCOPE OF STUDY

The carpentry trade makes up the largest skilled trade in the construction industry and is only second to unskilled labor which makes up the largest labor segment in the industry. Nationally, almost 40 percent of the need for skilled workers will be for carpenters. The carpentry demand will increase due to new housing and the need to renovate and modernize existing structures. The employment rate for the carpentry trade is expected to grow which will mean an 11 percent increase in employment or an additional 101,000 carpenters between the years 1984 to 1995. 10 Theoretically this will be the increase. However, this need for carpenters will also be met by carpenters who are part of population influxes, especially those that are occurring in Florida. Because the carpentry trade is the largest of the skilled trades in construction, it will be used as a study vehicle and will be used in the future to research the other trades.

Much of the replacement and training of the overall skilled carpenter is the burden of the training programs. The goal of this study is to investigate the carpentry training programs, specifically the apprenticeship training programs. It will

<sup>&</sup>lt;sup>9</sup> "Building Trends for the Rest of the Eighties", <u>Florida</u> <u>Construction Industry Magazine</u>, Nov./Dec 1986, p. 18.

<sup>10 &</sup>quot;Job Outlook Cluster", Occupational Outlook Quarterly, Spring 1986, p. 26.

examine the current apprenticeship training programs and the four major construction associations which sponsor these programs to determine what the impediments are to an adequate supply of skilled carpenters throughout Florida. The study will determine:

- 1) the assessment of the shortage of carpenters.
- 2) what problems exist in recruiting apprentices
- 3) what placement methods are being used
- 4) how wages rates are affecting the prospective carpenter in entering the work force.
- 5) the apprenticeship training program's level of communication with the construction industry.

An analysis of these factors will be made to develop recommendations for meeting acceptable qualities of workmanship in the construction industry in Florida.

## SOURCES OF SKILLED CARPENTERS

The current labor pool is the major source of skilled carpenters. The skilled carpenter labor supply is decreasing due to carpenters transferring to other jobs or retirement. 11 This supply of carpenters needs to be replenished by the new worker just entering the work force. The supply of the young workers available to the construction industry will dwindle because of demographic trends and overall economic prosperity. The low birth rates of the 70's will have some impact on the numbers of

<sup>11</sup> Construction Labor Research Council, October 1985, "Meeting the Future Need for Construction Labor, 1990 - 1995", (Washington, D.C.). p. 3 and 6.

the new work force entering the market. Presently, the baby boom generation is passing into the 35-44 years old category. The number of 18 to 24 year olds will continue to decline through 1995. Table I-1 from the Florida Statistical Abstract shows the decline of numbers of 18 to 24 year olds through 1995. "As a result, fewer young workers will be available to replace a stable number of older workers." 12

<sup>12</sup> Construction Labor Research Council, October 1985, "Meeting the Future Need for Construction Labor - 1990-1995", (Washington, D.C.), p. 2.

Table I-1 POPULATION PROJECTIONS IN FLORIDA

_	<del></del>		TONC
AGE	CENSUS 1980	PROJECT 1990	1995
TOTAL *	9,746,324	12,596,426	13,749,823
0-4	570,224	790,698	768,612
5-9	621,534	805,031	847,796
10-14	685,016	712,524	864,386
15-19	811,340	759,151	774,690
20-24	811,427	829,144	801,288
25-29	739,848	944,663	849,869
30-34	671,563	956,070	988,172
35-39	544,240	892,015	1,023,844
40-44	484,538	826,214	970,331
45-49	471,279	680,593	894,920
50-54	517,881	587,173	738,425
55-59	555,209	593,724	657,519
60-64	564,652	708,920	694,995
65-69	579,012	780,097	805,954
70-74	480,141	664,750	775,534
75-79	329,211	520,180	595,460
80-84	181,867	326,995	403,880
85 AND OV	ER 117,342	219,478	294,187

Source: 1986 Florida Statistical Abstract, Bureau of Business and Economic Research, College of Business Administration, University of Florida, Gainesville, FL. p. 21.

Another potential source for supply is among the immigrating population both legal and illegal. This has traditionally been the means of dealing with the need for labor throughout the history of the United States. Whether the level of immigration stays the same or increases it could very well be an important source of new workers. 13

Training programs are highly favorable sources of carpenters. The two major types of programs supplying carpenters are the vocational and apprenticeship training programs. vocational programs are job preparatory training programs which provide graduates with marketable skills and place them in jobs for which they have been trained. Apprenticeship programs work with a sponsoring employer and provide graduates with marketable skills in skilled trades and crafts through use of formal instruction several hours per week and actual on the training. During the late 70's, business downturns were being experienced and widespread reaction was to decrease enrollment in training programs. Union construction has also suffered a decline. As non-union construction has grown, especially in Florida, the non-union training programs have not correspondingly. Robert Graham, executive director of the Georgia chapter of the Associated Builders and Contractors (ABC), states that "nonunion contractors have started training programs, but they are only a drop in the bucket, and raiding has become

<sup>13</sup> Construction Labor Research Council, October 1985, "Meeting the Future Need for Construction Labor, 1990-1995", (Washington, D.C.), p. 5.

## CARPENTRY APPRENTICESHIP STANDARDS IN FLORIDA

On the national level, the National Apprenticeship Law, also known as Fitzgerald Act, was enacted by Congress in 1937 to:

"--- extend the application of such standards by encouraging the inclusion thereof in contracts of apprenticeship, to bring together employers and labor for the formulation of programs of apprenticeship, to cooperate with State agencies in the formulation of standards of apprenticeship."15

A newer part of the labor standards are the Labor Standards for the Registration of Apprenticeship Programs (Title 29 CFR Part (See Appendix D, p. D1 for complete standards). These 29). relating to the procedures standards cover policies and registration, cancellation and de-registration of apprenticeship programs and agreements by the Bureau of Apprenticeship and Training (BAT), the recognition of a State Apprenticeship Council registering local appropriate agency for the (SAC) as apprenticeship programs for certain Federal purposes. Florida is one of the 33 states in the nation which has State Apprenticeship Council. The Equal Employment Opportunity in Apprenticeship and Training (Title 29 CFR Part 30) of the labor standards, sets policies and procedures to promote equality of opportunity in apprenticeship programs registered with the U.S. Department of Labor as well as state registered programs.

<sup>14 &</sup>quot;Labor Shortages Grip Several Cities", Engineering News Record, 25 September 1987, p. 10.

<sup>15</sup> U.S. Department of Labor, Employment and Training Administration, Apprenticeship: Past and Present, (1982), p. 16.

policy applies to the recruitment and selection of apprentices, and to all conditions of employment and training during apprenticeship. (See Appendix D for complete standards). The Occupational Safety and Health Act (OSHA) of 1970 was enacted to promote safety in the workplace and applies to apprenticeship programs as well, in that safety is one of the major priorities in job training (see Appendix D for OSHA act).

On the state level, apprenticeship programs standards are set by Florida Statute Chapter 446 and the Florida Rules of the Department of Labor and Employment Security Chapter 38C-16. Florida Statute Chapter 446 covers criteria including duties of the State Apprenticeship Council, expenditures, related instruction for apprentices, federal and state cooperation, and administration of responsibilities. The Florida Rules of the Department of Labor and Employment Security Chapter 38C-16 is comprised of criteria for eligibility and procedure for bureau registration, standards for apprenticeship, apprenticeship agreements, hearings, complaints and reinstatement of program registration as well as pre-apprenticeship programs. Appendix D for complete Fla. Statutes and Rules).

The U.S. Department of Labor defines a "carpenter apprentice" as "a person who is engaged in learning the carpentry trade covered by these standards and who is under a written agreement, hereinafter call an "apprenticeship agreement," with a local carpentry joint apprenticeship committee, acting as agent of the employer and employee, or within employer provided the

ANALYSIS BY REGION

the apprentices complete the 8,000 hours of on the job training in the 4 year duration. However, because of circumstances such as lack of work availability, some apprentices are unable to complete a total of 8,000 hours at the end of the 4 year duration. In this case, the committee of the particular program will review the individual's case and grant a waiver to the 8,000 hours after considering the individual's schoolwork record and on the job evaluation. 17

<sup>17</sup> Al Herndon, Apprenticeship District Program Manager of Jacksonville, Florida Bureau of Apprenticeship, Telephone conversation on 18 June 1987.

## ANALYSIS BY REGION

In addition to an overall, total population analysis, it is necessary to examine the statistical data by the five market regions in Florida. The construction activity varies throughout the five regions and each region has its own specific requirements and needs for the particular issues being discussed. In the discussion of the analysis by region, comparisons are made between the five major regions and statewide results. The following tables include results of question which were considered to be significant. For a more detailed statistical tables and results to all questions by region see Appendix B-1 through B-5.

The map in Figure 5-2.1 indicates the location of the various sponsoring carpentry apprenticeship training programs throughout the five major regions of the state. The regional breakdown of the state is derived from the 1986 Florida Statistical Abstract and is used for market region and population studies for census purposes.

### Table I-2 (cont'd.)

week, 3 hours each night.

<ol> <li>Walls and Partitions:         Layout, cutting, assembly, erection, and/or application of all materials, and component parts.</li> </ol>
(a) Floor and ceiling runners.
(b) Studs, stiffeners, bracing, fireblocking
(c) Resilient and furring channels.
<pre>(d) Layout, framing, enclosing, and trimming     of:</pre>
door frames, window frames, vents, light wells, and other openings.
(e) Wall angles and moldings.
(f) Studless and laminated installations.
<ul><li>(g) Thermal and sound insulation.</li><li>(h) Installation of backing and finish ma-</li></ul>
terials.
<ul><li>(i) Fireproofing of columns, beams, and chase.</li></ul>
(j) Items of local practices.
j. Miscellaneous
Safety, scaffolding, walkways, shoring, sheds,
protection, etc.
Total
Source: National Apprenticeship and Training Standards for Carpentry, U.S. Department of Labor, Manpower Administration, 1973.
CLASSROOM INSTRUCTION

This schedule is an example of the type of work experience and training considered necessary to develop a skilled and productive worker in the carpentry trade. This schedule is adaptable to local conditions.

144 Hours for each year of apprenticeship, usually 2 nights a

. . 576

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

Table V-2.1 Background Information

BACKGROUND INFORMATION	AVERAGES					
	S.E. REGION	S.W. REGION	CENTRAL REGION	N.E. REGION	N.W. REGION	STATE- WIDE
Duration of program in years	3.8	3.8	3.8	3.8	4.0	3.8
Number of apprentices presently enrolled	59.4	32.5	15.4	38.7	18.8	35.2
Available capacity	118.2	69.4	66.7	80.5	42.7	81.3
Total hours of class- room instruction in the program	575	620	607	645	604	605
Total hours of job site training in the program	7,667	7,667	7,333	7,667	8,000	7,667
Number of apprentices who graduate each year from program	18.7	15.4	10.0	3.0	1.3	11.5
Average age of graduates	24.5	25.3	24.5	26.0	27.0	25.3

The majority of regions report an average duration of 3.8 years. The N.W. region is the only region which reports a 100%, 4 year duration. However, the majority of all programs (83%) do have 4 year programs.

The lowest average enrollment rate is in the central region and the highest rate is in the S.E.. In a comparison of the enrollment rates and available capacities, all the programs are utilizing approximately half their capacities with the exception of the central region. The central region utilizes about 25% of its capacity.

The S.E. region holds the lowest average in the state of classroom instruction hours of 575 hours and the N.E. region holds the highest of 645 hours. The highest statewide average of 8,000 on-the-job training hours is in the N.W. region, and the central region indicates the lowest throughout the state of 7,333 hours.

# BUILDING ASSOCIATIONS WHICH SPONSOR CARPENTRY APPRENTICESHIP PROGRAMS

## Associated Builders and Contractors

The Associated Builders and Contractors, Inc. (ABC), is a national construction association which provides training for various crafts in the construction industry. Currently, the ABC has 6 chapters which include 922<sup>19</sup> members in Florida. ABC apprenticeship training programs are administered on the national levels who oversee local chapters by a staff of training professionals and by committees of contractors interested in the future of the apprentice and the construction industry.

ABC's major goal is to provide effective methods of training people for the construction industry. The major areas of training provided by the ABC are in craft, supervisory and management training. The craft programs offered include: electrician; ironworker; operating engineer; painter; pipefitter-refrigeration, heating and air conditioning; plumber-pipefitter; sheet metal worker; carpenter and bricklayer.

The apprenticeship training program is open to all who meet minimum requirements. Most trades require a 4 year training program. On-the-job training consists of working in the trade, usually for contractors, under the supervision of a journeyman. Some job placement service is available through these programs. Training is also accompanied by classroom instruction.

<sup>19</sup> Nancy Riviere, Associated Builders and Contractors, Washington D.C., Telephone conversation, 3 August 1987.

# AVERAGE HOURLY WAGES FOR AN APPRENTICE BY REGION

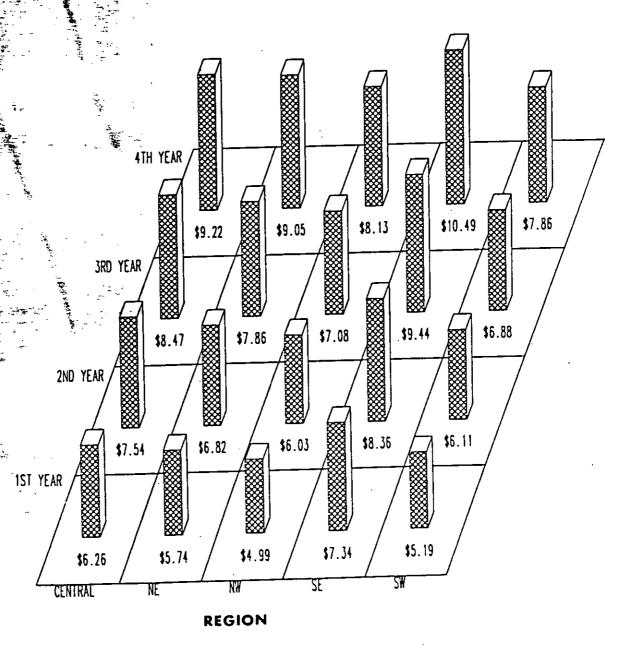


Figure 5-2.2

The AGC offers a wide variety of services to its members. To name just a few, these services include: open shop services, collective bargaining services, equal opportunity services, legislative information services, safety and health services, education and research, safety and health services, highway and heavy industrial services and manpower and training services. On the community level the AGC is involved in projects for the United Way, Child Abuse Centers and local Chambers of Commerce.

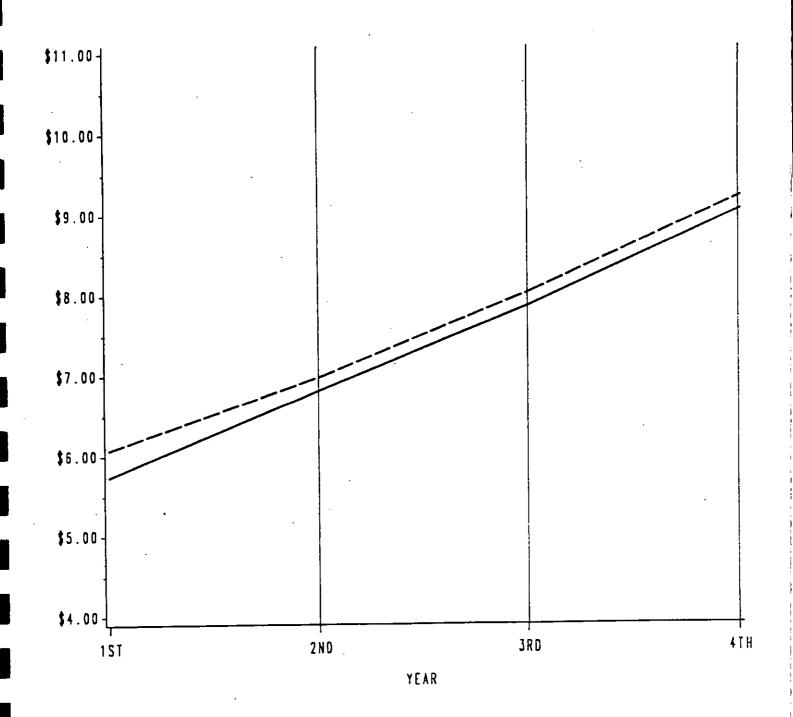
The AGC provides apprenticeship training in various construction trades which include: electrical, heavy equipment, glass and glazing, heating and cooling, plumbing and painting and carpentry and are all registered with the Bureau of Apprenticeship in Florida. Courses have been developed in a manner that they may be taken individually or combined to result in formal recognition of completion.

In most cases, the AGC carpentry apprenticeship program is a 4 year program and offers on the job experience plus in-depth classroom training. Form building, framing, interior and exterior finishing and layout are some of the many skills that the apprentice will acquire. The applicant must be in good physical condition and must be at least 17 years of age (18 in some regions), and is required to have a highschool diploma or its equivalent in some programs, and may also be required to take a qualifying entrance exam. Upon the successful completion of the carpentry program there will be a formal recognition of completion.

# COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGE:

NE REGION

HOURLY WAGES



LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-2.4

highschool for a trade in which he/she is applying, the age requirement may be lowered to 16 years of age. A highschool diploma or its equivalent and a qualifying entrance exam may also be required. The individual must also be physically fit to perform the work of the trade and have some mode of transportation to job sites and classroom instruction.

The carpentry trade program offered involves a 4 year training program. Some of the activities included during training are erecting formwork, sheathing, partitions, floor joists, and rafters. Finish woodwork involves application of door and window trim, baseboards and moldings and closets and stair work.

Upon completion of the program an apprentice is qualified as a skilled journeyman in the trade and will earn journeyman wages. The program is approved by Florida Bureau of Apprenticeship and is recognized for Veterans Administration benefits and is also recognized to meet requirements on Davis-Bacon (federal) jobs.

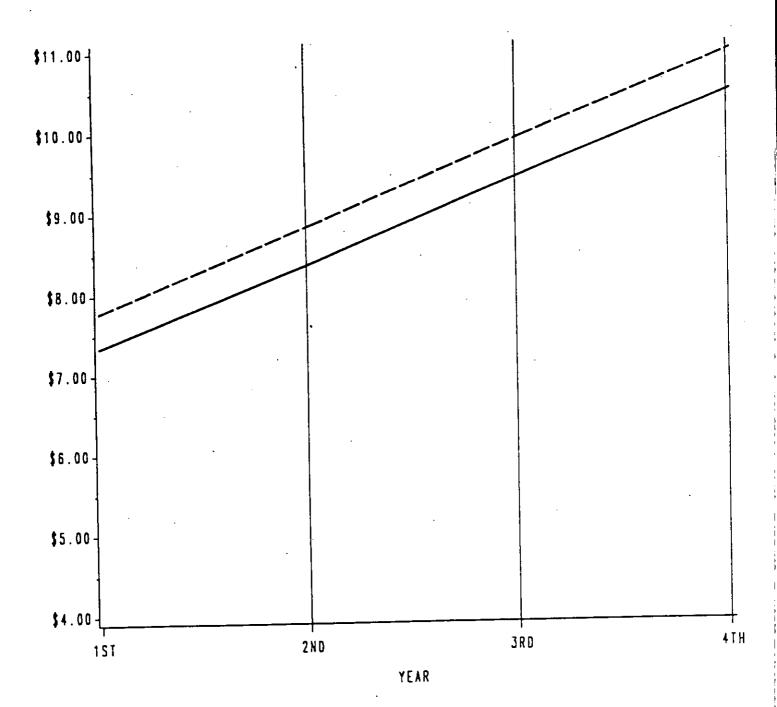
## United Brotherhood of Carpenters and Joiners of America

Today, the United Brotherhood of Carpenters and Joiners of America is one of the oldest and largest labor unions in North America. They are known by their initials "UBC" or referred to in this report as union programs. The UBC is organized throughout the United States and Canada into 10 districts. There are more than 2,000 local unions of the Brotherhood scattered through every state of the United States and every province of Canada. Their membership includes 800,000 working men and women

# COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGES

SE REGION

HOURLY WAGES



LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-2.6

successfully complete a qualifying entrance test. The carpentry union programs use the Performance Evaluated Training System (P.E.T.S.) curriculum for their training purposes. Some of the work processes involved include building layout, form building, framing, interior and exterior finishing and drywall application. Upon the successful completion of the apprenticeship term, the advisory committee recommends to the Bureau of Apprenticeship the issuance of a certificate of completion and grants the individual a journeymen status.

#### Other (non-union) Carpentry Apprenticeship Programs

The other (non-union) carpentry apprenticeship programs are either individual or group non-union associations which do not belong to one particular major building association. The programs which are included in this category are:

1. Associations of Builders and Contractors Institute, Boca Raton - this organization represents:

Electrical Council of Florida (ECF)

Associated Builders and Contractors (ABC)

Florida Association of Electrical Contractors (FAEC)

Treasure Coast Builders Association (TCBA)

Home Builders & Contractors Association of

Palm Beach County (HBCA)

The Latin Builders Association of Dade County

Florida Atlantic Builders Association (FABA)

Builders Association of South Florida (BASF)

#### JOB PLACEMENT

Table V-2.3

Average Time Lag for Placing an Apprentice from One Apprenticeship job to another Apprenticeship Job (in days)

S.E. REGION		CENTRAL REGION	N.E. REGION	N.W. REGION		EWIDE MEDIAN
3.1	8.6	92.5	5.3	22.5	25.8	10.0

The S.E. region reported the shortest lag time of about 3 days between placement of jobs. The central region reported an extremely high lag time because of two programs (a union and other (nonunion) program) which reported a lag time of 180 days each. Both of these programs are part of one double-breasted operation. It may be more beneficial to compare the regional operation. It may be more beneficial to compare the regional averages to the statewide median of 10 days since this figure is a more realistic number in considering the lag time throughout the state.

# Percentage of Apprentices who completed Training Program and Have Full-Time Carpentry Jobs

S.E.	S.W.	CENTRAL	N.E.	N.W.	STATE-	
REGION	REGION	REGION	REGION	REGION	WIDE	
86.5%	90.0%	100.0%	83.3%	100.0%	89.4%	

The above table indicates that the majority of apprentice graduates do hold full-time carpentry jobs. It may seem contradictory that the central region reports a 100% carpentry employment rate since it reports an extremely high time lag for placing an apprentice between jobs. However, the two apprenticeship programs which are part of a double-breasted organization, did not respond to this question.

### DEGREE OF SPECIALIZATION IN THE CARPENTRY FIELD

#### Table V-2.6

Apprenticeship Program's Opinion of the Degree of Specialization which has Entered the Field of Carpentry

Rating System: 4=Large Degree

3=Necessary 2=Desirable 1=No Degree

S.E.	S.W.	CENTRAL	N.E.		STATE-
REGION	REGION	REGION	REGION		WIDE
3.67	3.83	4.00	4.00	3.00	3.59

It is the general consensus of all regions that the field of carpentry will become specialized to a large degree. It may be that those programs which are less than 4 years in duration may already be responding to the degree of specialization which is occurring in the carpentry field.

#### CARPENTER LICENSING

#### Table V-2.7

Percentage of Apprenticeship Programs who Feel That There Would be Better Skilled Carpenters If Licensing Were Required

S.E.	S.W.	CENTRAL	N.E.	N.W.	STATE-
REGION	REGION	REGION	REGION	REGION	WIDE
100.0%	83.3%	100.0%	66.7%	50.0%	84.0%

A 100% response rate was received on this issue. and central region were totally convinced of a need for licensing carpenters. The N.W. region was only half convinced of this need and did not necessarily agree that licensing would provide more skilled carpenters.

The strongest ties were indicated by the S.E. region which had very close ties with the vocational programs and the open shop apprenticeship programs.

followed by retail and hotel space. It has been a buyer's market for office space and retail tenants. Office vacancy rates in most Florida cities exceed 20 percent. 21 Developers are forced into using concessions such as introductory free rent to entice tenants to their buildings. Hotels also have plenty of room. Even though tourism increased 12 percent in 1986 and is expected to increase 10 percent in 1987, 22 the current supply of hotel rooms is too high in many areas of the state. The one encouraging spot in the construction market is the single family home market. Home starts and sales are brisk throughout most of the state.

Tax reform, growth management legislation, rising interest rates and an inadequate infrastructure, all pose serious detriments to the construction industry in Florida. Construction finally has slowed because of excess inventories. It is expected to slow further because of federal tax laws that break down many of the incentives in real estate investment. The value of building permits has been reduced by 7 percent in 1986. Carol Taylor, the chief economic forecaster at the Bureau of Economic Research at the University of Florida, predicts construction employment will fall by 10,700 jobs this year. 23

<sup>21 &</sup>quot;State Overview", Florida Trend, Yearbook 1987, p. 47.

<sup>22 &</sup>quot;State Overview", Florida Trend, Yearbook 1987, p. 47.

<sup>23</sup> Ibid.

ANALYSIS BY ASSOCIATION

#### Market Regions in Florida

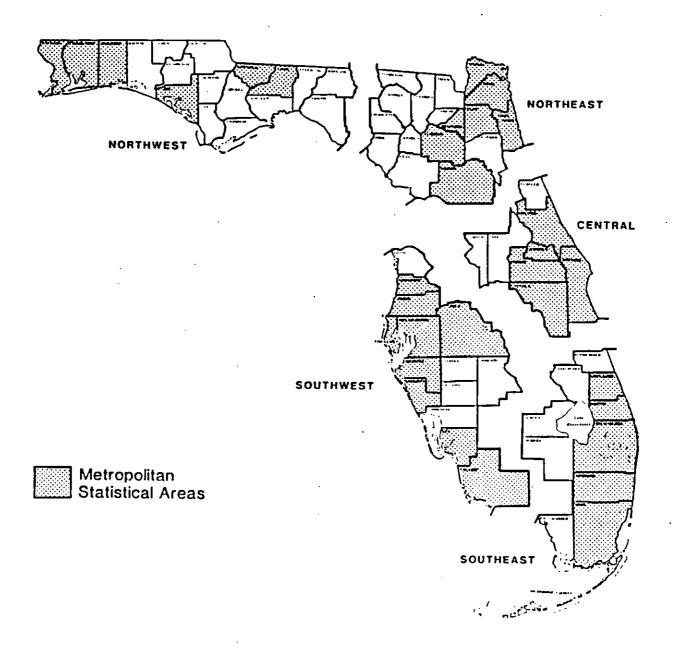


Figure 2-1

Source: 1986 Florida Statistical Abstract

#### ANALYSIS BY ASSOCIATION

In the analysis of the data, an analysis by association was deemed necessary. The various building associations which provide the carpentry apprenticeship programs indicate their own unique conditions and perceptions on various issues. In this section a comparison is made between the five building associations and statewide results. The following tables include results of questions which were considered to be significant. For more detailed statistical tables and results to all questions on the questionnaire by association see Appendix B-6 through B-10.

The chart in Figure 5-3.1 indicates existing carpentry apprenticeship programs within the state by association on a numerical and percentage basis. The data indicate that the union programs hold the majority of carpentry programs with a 44% share of total programs and the Florida Home Builders Association make up the smallest portion at an 8% share of all programs.

#### THE SOUTHWEST FLORIDA REGION

In the Southwest, Naples, Florida has earned the title of the fastest growing metropolitan area in the country by the U.S. Department of Commerce. 28 Historically, this area has resisted growth. But lately, public and private sectors are welcoming the economic growth and are working together to handle the pressures of growth. In Glades county, a 106 percent increase in home building will be seen by 1991, and in Hendry county housing starts are expected to grow by 341 percent. 29

In the Tampa Bay area, in St. Petersburg, renovation of a downtown hotel and continued development of the Gateway area, a fast growing industrial and office center, is taking place. Across the bay, the city of Tampa is flourishing due to its ability to attract new companies. Although a glut of office space in the urban centers continues to be a problem, the vacancy rate dropped in the past year. The Paragon Group is confident enough that the demand for office space is strong enough to fill all the vacant space by next March and plans to build a 55 story downtown office tower. 30 In the same region, Pasco county is poised for considerable residential growth in addition to industrial development. 31

<sup>28</sup> Bonnie Welch, "A New Attitude Embraces Growth", Florida Trend, Yearbook 1987, p. 73.

<sup>&</sup>lt;sup>29</sup> Ibid, p. 76.

<sup>30</sup> John Taylor, "Tampa Bay Takes Big-League Strides", Florida Trend, Yearbook 1987, p. 82.

<sup>31</sup> Ibid, p. 84.

## BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

Table V-3.1 Background Information

		•	AVER	AGES		
BACKGROUND INFORMATION	ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE
Duration of program in years	3.7	3.6	4.0	4.0	3.8	3.8
Number of apprentices presently enrolled	15.3	36.3	25.0	54.2	8.4	35.2
Available capacity	54.3	98.3	55.0	90.4	82.0	81.3
Total hours of class- room instruction in the program	598	642	648	587	597	605
Total hours of job site training in the program	7,333	7,250	8,000	8,000	7,333	7,667
Number of apprentices who graduate each year from program	18.3	11.5	. 3.5	11.9	2.0	11.5
Average age of graduates	25.3	25.0	28.0	25.4	23.8	25.3

Of all the carpentry programs, the union programs average the highest enrollment of 54 apprentices in carpentry training programs. Other (non-union) programs average the lowest enrollment of 8 apprentices. Union and FHBA programs utilize about half their capacity. AGC programs indicate the most capacity but utilize only a third of their capacity. Other (non-union) programs utilize the least capacity at 10% of its capacity.

ABC programs indicate the highest number of graduates (18) and the other (non-union) programs indicate the lowest number of graduates (2).

The FHBA has the highest average age of 28 years of age for graduates and other (non-union) programs indicate the lowest average age of 24 years. Assuming an approximate 4 year program duration this demonstrates that other (non-union) programs are able to attract people at a younger age group.

#### THE NORTHEAST FLORIDA REGION

For the northeastern portion of Florida, Jacksonville is considered to be the hot market. The scope of some of the region's expansion and future plans suggests business may be overestimating the demand for Northeast Florida. "Despite some overbuilding, the region seems headed toward a prolonged period of fast growth." Jacksonville is expected to drop back to single digit vacancy rates downtown by the end of 1987 or mid 1988. In the suburbs of Duval County, hotel construction "presently is on one of the most prolonged and dynamic spurts of growth I can remember," says Charles Ross, a lodging industry consultant. Since 1984, the hotel market in fast growing southern Duval has doubled the inventory of hotel rooms.

At the southern portion of the region, Marion County has plans for several large developments. Three major projects in the development or construction stage are expected to contribute to the growth of the county. C.H. Limited, a Miami based partnership, plans to break ground on a 242 acre, \$107.6 million development consisting of 1479 housing units, 230,000 square feet of office space and 215,000 square feet of retail.<sup>37</sup> Elkay Properties Inc. of Atlanta is continuing construction of the \$160 million Paddock Park, the largest planned community in Ocala. The

<sup>35</sup> Michael Selz, "Jacksonville Shows Signs of Oversupply," Florida Trend, Yearbook 1987, p. 113.

<sup>36</sup> Ibid, p. 114.

<sup>37</sup> Elizabeth Willson, "Much More Than A Pass-Through Place", Florida Trend, Yearbook 1987, p. 106.

# AVERAGE HOURLY WAGES FOR AN APPRENTICE BY ASSOCIATION

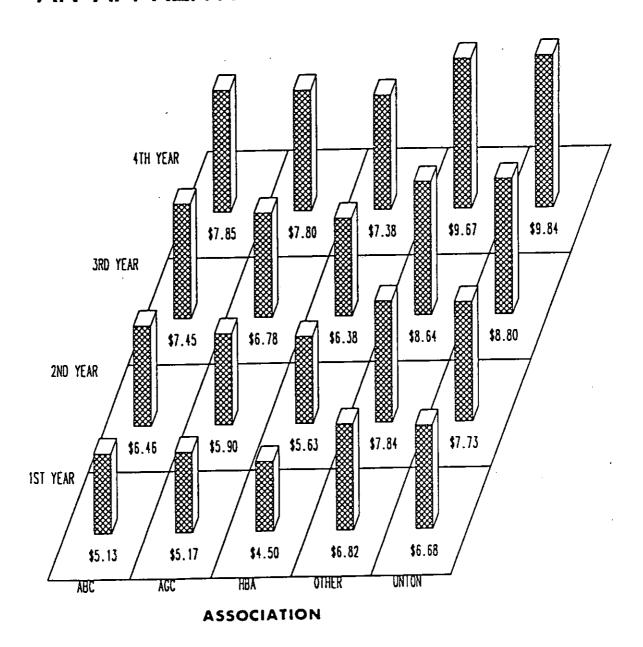


Figure 5-3.2

Overall, the most solid category in the construction industry in Florida, appears to be the single family home. With the exception of a few regions, the supply of office space does exceed demand. It will be a matter of time before much of this space is absorbed. In general, 1987 is seen as a sluggish year in construction due to new tax laws. 42 It might actually help the market for 1988 and beyond for the reason that it will allow the overbuilt segments of the market to catch up and give developers time to replan for the future. The overall outlook for the next fifteen to twenty years in Florida look bright for the construction industry. 43

<sup>42</sup> Tom P. Fronce, "Building Trends for the Rest of the Eighties", Florida Construction Industry, December 1986, p. 20.

<sup>43</sup> Ibid.

# COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGES

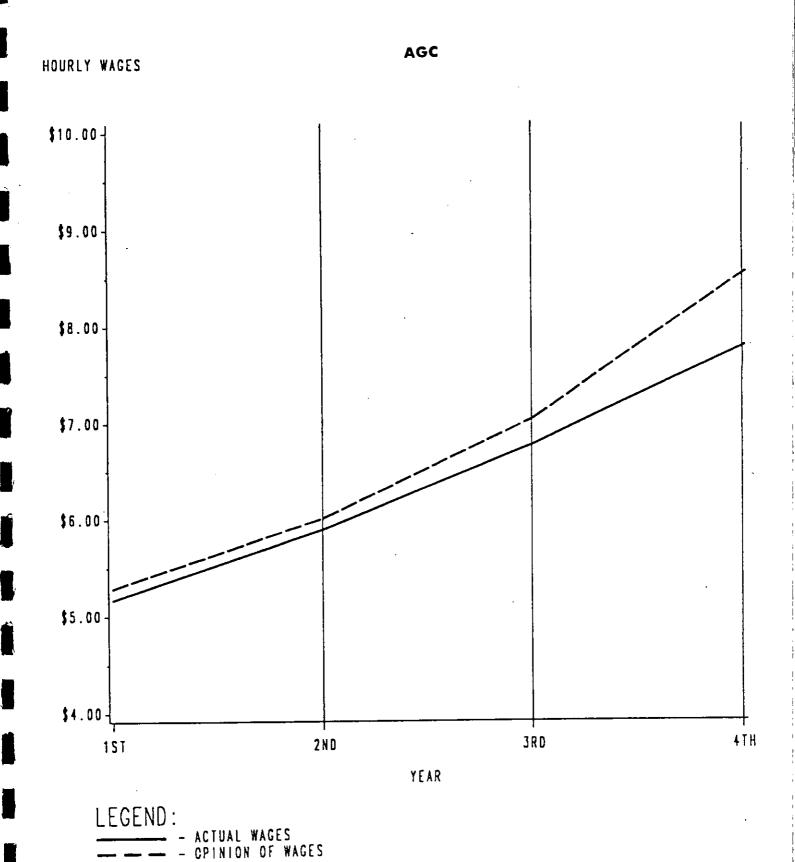
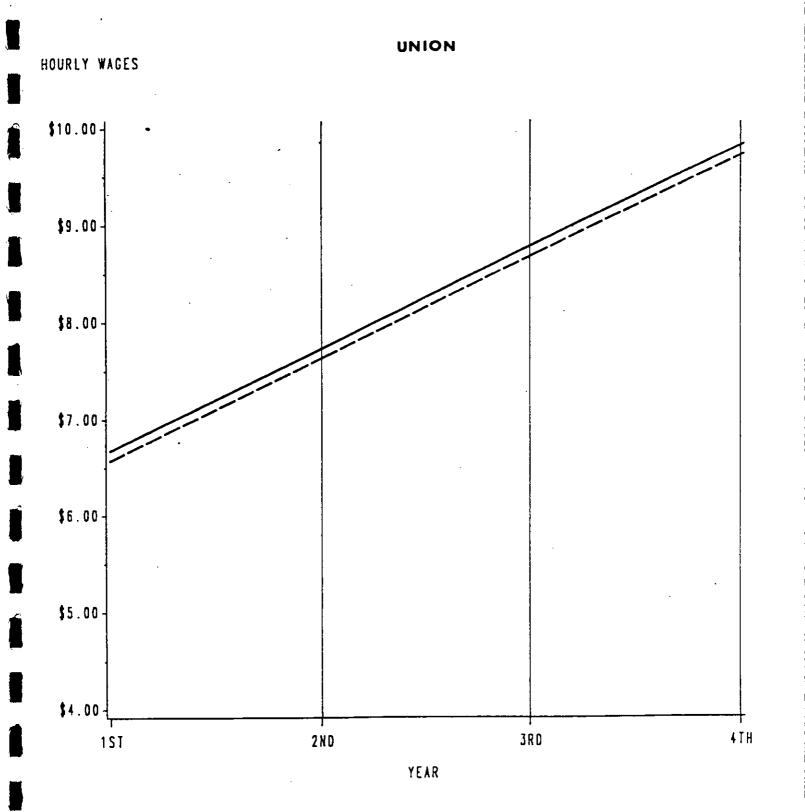


Figure 5-3.4

## COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGES



LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-3.6

The second section of the questionnaire was designed to examine:

- \* the adequacy of recruitment to fulfill the needs of industry.
- \* the utilization and success rates of various recruiting methods.

The <u>third</u> section deals with an analysis of the degree of influence for:

- \* various placement strategies <u>during</u> the apprenticeship training programs.
- \* various placement strategies after the completion of the apprenticeship training programs.

The fourth section asks specific questions to find out:

- \* importance of various skills for the skilled carpenter.
- \* apprenticeship training programs's assessment of the shortage of skilled carpenters in Florida.
- \* specialization in the carpentry field.
- opinions on licensing the carpentry trade in Florida.

The <u>final</u> section deals with the communication level between the apprenticeship training programs and the rest of the construction industry.

#### Validation of Instrument

The validity of the questionnaire was determined by sending the first draft of the questionnaire to one apprenticeship program and discussing it with several building contractors. They were asked to make suggestions concerning the questionnaire. Minor editing was done as the suggestions were incorporated into the questionnaire.

Preliminary research revealed that a total of 25 carpentry apprenticeship programs were registered with the Florida Bureau

#### JOB PLACEMENT

Table V-3.3

Average Time Lag for Placing an Apprentice from One
Apprenticeship job to another Apprenticeship Job (in days)

ABC	AGC	FHBA		ION MEDIAN	OTH AVG.	ERS MEDIAN		EWIDE MEDIAN
10.0	8.5	8.0	92.5	7.0	61.5	3.0	25.8	10.0

Two programs (union and other (non-union)) which are part of a double-breasted operation in central Florida have an average lag time of 180 days. Because these numbers were significantly higher than the rest of the figures given, medians were determined for those categories which would be affected by these two programs to use as a more realistic number in investigating time lags in job placement. When utilizing the median time lag figure, other (non-union) programs appeared to have the highest success rate in placing apprentices on a quicker basis. ABC programs had the highest time lags of 10 days when placing an apprentice.

Table V-3.4
Percentage of Apprentices who completed
Training Program and Have Full-Time
Carpentry Jobs

ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE
100.0%	93.3%	95.0%	86.1%	86.7%	89.4%

Overall, the programs indicate the majority of the graduates do hold full-time carpentry jobs. ABC programs indicate that 100% of their apprentices hold full-time carpentry jobs upon graduation. However, some programs have explained that some of their exceptional students move right into foreman or supervisor positions upon graduation.

#### STATISTICAL ANALYSIS

A statistical analysis was then carried out using the "Statistical Analysis System" (SAS) computer program. Depending on the type of variable in question, various functions such as the mean, frequency and correlation were used to analyze the data. In addition to this, SAS Graph, a statistical graphics program, was also used to process the data into graphical form.

The second part of the research consisted of a series of personal interviews with several of the associations which provide carpentry training programs. The purpose of these interviews were to obtain any additional information which had not been asked for on the questionnaires. Two state and one federal apprenticeship bureau were also interviewed to obtain their outlook on the status of the skilled carpenter in Florida.

#### COMPARISON OF CURRICULA AND REQUIREMENTS OF PROGRAMS

The third part of the research involved obtaining a sample curriculum representing each one of the major associations who sponsor the carpentry apprenticeship training programs. These were analyzed to compare the amount of hours devoted to various on the job training of various carpentry skills.

The flow diagram in Figure 3-1 summarizes the methodology used in this study. The next chapter will be the comparison of curricula and requirements and this will be followed by the chapter on the statistical analysis of the questionnaire.

#### DEGREE OF SPECIALIZATION

Table V-3.6

Apprenticeship Program's Opinion of the Degree of Specialization which has Entered the Field of Carpentry

Rating System: 4=Large Degree

3=Necessary 2=Desirable 1=No Degree

ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE
3.33	4.00	4.00	3.55	3.33	3.59

All the programs do consider that specialization is necessary within the field of carpentry and the FHBA and AGC programs feel that the degree of specialization has entered the field of carpentry to a large degree.

#### CARPENTER LICENSING

Table V-3.7

Percentage of Apprenticeship Programs who
Feel That There Would be Better Skilled Carpenters
If Licensing Were Required

ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE
100.0%	50.0%	100.0%	90.9%	80.0%	84.0%

The majority of the programs indicated that there would be better skilled carpenters if licensing were required. The ABC and the FHBA programs are in complete agreement of licensing. Half the AGC programs - one located in the N.E. region and one located in the N.W. region - were not in favor of licensing carpenters.

ABC and FHBA programs have very close communication levels with open shop apprenticeship programs. All apprenticeship programs except union programs have very remote communications with union programs.

# CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

Table IV-1

COMPARISON OF CURRICULA
OF ON THE JOB TRAINING HOURS

	UNION	AGC	ABC	FHBA
INTRODUCTION USE OF TOOLS	500	2,000 Includes Hardware	1,000	700
LAYOUT	1,500	& Layout		
FORMWORK	2,000	2,000	1,500 Includes Layout	. 400
FRAMING (INCLUDES ROOF)	750	1,000	1,500	1,500
EXTERIOR FINISH	750	800		1,200
INTERIOR FINISH	2,000	1,200	1,500	1,500
HARDWARE FITTING	250			500
MISCELLANEOUS	250		1,500	1,000
TOTAL HOURS	8,000	8,000	8,000	8,000

#### Associations:

Union - United Brotherhood of Carpenters and Joiners of America

AGC - Associated General Contractors

ABC - Associated Builders & Contractors

FHBA - Florida Home Builders Association

#### CHAPTER SIX

#### CONCLUSIONS

The focus of this study is a concern for the shortage of skilled carpenters. The analysis of data revealed many factors which contribute to this issue. Some of the more dominant factors include recruitment, wages, communication with the construction industry and licensing.

The majority of the carpentry apprenticeship training programs are concerned about a shortage of skilled carpenters. However, a shortage of carpenters must be analyzed on a regional labor market basis. Apprenticeship programs want to be sure that when they enroll an apprentice in their program, they will be able to assure the apprentice full-time employment. Therefore, construction activity within the apprenticeship program's local labor market must be examined to be sure that there is a demand for more carpenters in that area.

However, the greatest barrier to recruiting individuals into the carpentry trade was the status associated with the carpentry trade; it is not perceived to be as high as the status associated with the electrical and plumbing trades. The data indicated that this results from the lower wage rates, lower annual employment rates and no official recognition of the skilled carpenter such as licensing or certification. The data also indicate that there is a large capacity available in the carpentry apprenticeship training programs which is only being half utilized. Therefore,

was not feasible.

The next comparison, in Table IV-2, involves the various requirements of the four major building associations. Comparisons were made between the associations which included the following requirements:

- \* minimum age (average taken for association)
- \* education
- \* physical condition
- \* qualifying entrance exam
- \* required hours of on the job training (averages taken for each association)
- \* hours of related classroom instruction (average taken for each association)

provide training now. Although a specific individual may not work for the contractor who paid for his or her training, the individual will be a part of the supply from which all contractors can draw. Therefore, contractors do not necessarily pay for training that will be used exclusively by other contractors. This lack of willingness to train on the contractor's part provides little incentive for the individual to seek out his own training.

When the question arises as to what the requirements are to be a carpenter in Florida, in most cases there are no requirements. This is not the case in many of the other building trades in which completion of a formal training program, and in some cases licensing, is required. There is a need to differentiate between the skilled carpenter and the unskilled carpenter in Florida.

Most of the apprenticeship programs (84%) agree that some form of licensing in the carpentry trade would resolve many of these problems. This would increase the number of training programs by forcing more individuals to go through some formalized training systems in the carpentry trade. This would be an automatic incentive for the contractor to participate in the training programs as well. It would also give the individual who is stating that he or she is a carpenter some credentials to show that they possess the skills necessary to perform their duties in a proper manner on the job. Those apprenticeship programs who did not agree with licensing believed that it was

ABC - Associated Builders & Contractors

FHBA - Florida Home Builders Association

The different programs within each association have their own unique set of requirements. The programs' standards and requirements vary from each other within their respective associations. These standards are determined by the advisory committees presiding over the training program. This is in spirit with the idea of the apprenticeship program in that apprenticeship is designed to meet the particular needs of the programs.

#### RECOMMENDATIONS

The following recommendations are possible suggestions by the researcher for remedying the situation of the shortage of skilled carpenters.

- 1) Manpower and Training Committees of the construction associations should conduct a study on the amount of a wage increase necessary to attract enough people to the carpentry trade.
- 2) A more aggressive and creative recruiting program for the carpentry trade should be set up by the construction trade associations (ABC, AGC, Homebuilders, etc.) to encourage more people to enter the carpentry field.
- 3) A joint council should be formed by the construction associations to support apprenticeship programs better through membership on advisory councils. Programs should be established to educate employers on participation in training programs and what consequences they will be facing such as a depletion in the supply of skilled carpenters.
- 4) A joint council with representatives of all major construction trade associations needs to establish certification based on competency. To test this competency level, a written and practical test should be developed to determine who is a skilled carpenter.

conducted throughout the major regions of the country to see if there are specific areas of improvement in the construction trades which could be identified and remedied. Section IV (Questions 11-15) investigates various skills that are deemed to be important by apprenticeship programs for a skilled carpenter to posses. Next were questions to find out if there was a shortage of skilled carpenters and whether or not there would be better skilled carpenters if the State required licensing of carpenters. As new technologies come about in the construction industry, apprenticeship programs were asked if they felt specialization had entered the field of carpentry.

Section V (Questions 16-18) covers the level of communication between industry and the apprenticeship programs and ways of improving communication.

The raw data were taken from the questionnaires and run through the SAS (Statistical Analysis System) computer program. The data were processed to investigate various results in several manners. The data were analyzed in three different categories.

The first category examines and compares the results of the total population in its entirety. The second category presents the results by the five major regions in Florida. The third category contains the results by four major building associations and other (non-union) programs not specifically associated with any one of the major associations, which sponsor carpentry apprenticeship programs. These are:

- \* United Brotherhood of Carpentry and Joiners of America (referred to as "union" in the tables) 11 programs, 44%
- \* Associated Builders and Contractors (ABC) 3 programs, 12%
- \* Associated General Contractors (AGC) 4 programs, 16%
- \* Florida Home Builders Association (FHBA) 2 programs, 8%
- \* Other (non-union) 5 programs, 20%

The largest number of people graduating each year from the carpentry programs is 50 people in one of the ABC programs. When asked the average age of graduates of the carpentry programs, a Florida Home Builders Association program reported an age as high as 30 years old. The overall average of 25.3 years old indicates that the majority of people entering the carpentry program enter at an age of about 21 years suggesting that carpentry may not have been a first choice of careers when they first entered the job market at approximately 18 years old.

#### QUESTIONNAIRE

	f apprenticeship program								—
Contac	t person	Position			· -				_
	of apprentices presently enrolled								
	my hours of each are in the program? classroom inst								
Number	of apprentices who graduate each year from program	Averag	je age	of	graduates				
What i	is the average hourly wage of the following? Lst year apprentice 2nd year apprentice 3r	year apprentice	4th	year	apprenti	ce			
In you	ur opinion, what should be the average hourly wage o Ist year apprentice 2nd year apprentice 3n	the following? I year apprentice	4th	year	apprenti	ce			
1. I	n your opinion, are the apprenticeship training prog	rams fulfilling the			yes	_		no	
2. I 3. A 4. D	emand for trained carpenters? s apprenticeship recruiting adequate? re local contractors aware of the existence of your o your program to supply them with trained carpenter o you think apprenticeship programs are being proper mployers?	program and do they s?	look				-		<u> </u>
5. <b>8</b>	elow, several possible strategies are listed for inc the degree of use and the degree of success for each	reasing apprentices item listed? Pleas	hip r e use	ecrui the	tment. I following	n your rating	opini Syst	on, wi .em:	hat 1
	3 = utilized, suc	lized, partially su							
			Degr	ee of	n		Degre	e of	
a. /	Advertising the program in local newspapers and journ	als. 4	3	2	1		3		1
c. i	Instructor takes a mobile carpentry workshop to condument sessions in high schools and malls. Development of slide or video tape presentations for throughout the region.	distribution 4	-	2	1 1		3	-	1
4 1	Providing tours of the program for prospective studer Utilization of local radio and T.Y. stations to place	oublic			1		3		1
	service announcements about the training program. Staff takes past and present students to feeder sch	4	3		1	4	3	2	1
g. 1	the state of the s	orogram. 4	3 3 3	2 2	1 1 1	4 4	3 3 3	2 2 2	1
6.	In your opinion, which of the following factors had apprenticeship training programs. Please use the fo	he most influence of lowing rating syste	n the	plac	ement of	apprent	ices	durin	ig th
	4 = extremely in 3 = influential	luential							
	2 = little influ 1 = no influence		ė						
b.	Counseling students on job opportunities and require The quality and adequacy of training provided to the Students had previous on-site experience.	students.				4 4	3 3	2	1
•.	Existence of an advisory or craft committee for the Cooperation between instructor and placement officer					4	3		1
f. g.	Help from students' friends and relatives to get job Relationship between program personnel and local con Providing information on local employment opportunit Actively contacting contractors and inviting them to	tractors. les.	and .			4	3 3	5	1
	interview the students.	71314 till prog				4	3	z	1
-	Other	ce from one apprent	tcesh	lp joi	b to anot				days
8.	In your opinion which of the following factors had to completion of your apprenticeship program? Please w	he most influence o se the following ra	n the	plac syste	ement of	graduat	es af	ter ti	<u>he</u>
	4 = extremely in 3 = influential 2 = little influ 1 = no influence	fluential <del>en</del> ce							
4.	Counseling students on job opportunities and require	ments.				4			. !
_	The quality and adequacy of training provided to the Existence of an advisory or craft committee for the	program.				4		2	
d. e.	Cooperation between instructor and placement office: Help from students' friends and relatives to get joint	contacts.				4	. :	2	
f.	Relationship between program personnel and local CDP Providing information on local employment opportuni	itractors. ies.				4		2	
ň.	Actively contacting contractors and inviting them to program and interview the students.	visit the				4		2	!
1.	Other							-	

The predominant findings of the apprentice wages are as follows:

The two lowest wages are paid to apprentices who participate in one of the Florida Home Builders Association's (FHBA) and an other (non-union) sponsored carpentry program.

The majority of the highest wages are being paid to apprentices who participate in the union run carpentry programs in Northeast, Southeast and Central Florida as well as one other (non-union) organization in the Southeast region.

In terms of annual salaries, the lowest 1st year wage of \$4.00/hour at 2,000 hours/year will provide an annual income of \$8,000. The highest starting wage of \$9.15 will provide an annual income for 2,000 hours of work per year of \$18,300. This amounts to a staggering difference of \$10,000 a year.

When asked what wages should be, on the average, the majority of the programs replied only a 10 cent increase was in order. The difference in wages is graphically depicted in Figure 5-1.1.



#### SCHOOL OF BUILDING CONSTRUCTION UNIVERSITY OF FLORIDA GAINESVILLE, 32611

SAMPLE OF FOLLOW-UP LETTER

PHONE 904 392-5965 904 392-0202 SUNCOM 622-0202 April 10, 1987

Brisbane H. Brown, Jr., Ph.D. Director weku K. Bentil George Birrell, D.Arch. ary D. Cook Rodney E. Cox, Ph.D. Robert E. Crosland Bill G. Eppes Richard A. Furman Charles Grim, Jr. Villiam R. Gunby, Jr. Don A. Halperin, Ph.D., FAIC City, State Harold Holland Jack W. Martin Anthony Section Luther J. Strange Don F. Taylor G. Arlan Toy J. Morris Trimmer, DBA Howard I. Underberger

ovs A. Johnson, FAIC Emeritus

Thomas F. Martin. Emeritus

Dawson Zeigler, Jr. Emeritus

Apprenticeship Program Director Apprenticeship Program Address

Dear Program Director,

Approximately two weeks ago a copy of the enclosed questionnaire was mailed to you. As of this date, we have not received a response and ask that you please reconsider We desperately need providing the requested information. your valued input in order for our research to be valid and If you have already sent your useful to the industry. original questionnaire we thank you and appreciate your If for some reason you have not responded to the input. please take a few minutes to original questionnaire, complete the enclosed questionnaire and return it as soon as possible. If you have any questions concerning thes study or the questionnaire, please contact Ali Markus or Sheli Romer at 904-392-6755. Thank you.

Sincerely,

Brisbane H. Brown, Jr. Professor and Director

#### RECRUITMENT QUESTIONS

Table V-1.5 Adequacy of Recruiting

				·
	YES	5	ИО	
QUESTIONS	NUMBER OF RESPONSES	o <del>t</del> o	NUMBER OF RESPONSES	96
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	14	56.0	11	44.0
Is apprenticeship recruiting adequate?	13	52.0	12	48.0
Are local contractors aware of the existence of your program to supply them with trained carpenters?	12	50.0	12	50.0
Do you think apprenticeship programs are being marketed to potential employers?	10	43.5	13	56.5

Over half (56%) of the programs thought that they were supplying the demand for trained carpenters.

In the analysis of adequacy of recruitment, just over half (52%) of the programs felt that they were recruiting apprentices sufficiently.

Carpentry apprenticeship programs were split evenly on whether contractors were aware of the existence of their training programs. However, over half felt that their programs were not being properly marketed to potential employers.

John Weicherding of Associated General Contractors in Tampa states that he has 100 persons on a waiting list to enter the program. He adds that "The real problem is contractor participation." He feels "that without their support , little can be done to provide training programs necessary to meet the demand for skilled carpenters." 45

<sup>45</sup> John Weicherding, Associated General Contractors, Tampa, FL. Letter dated April 6, 1987.

- 8. CITY OF MIAMI APPREN. COMM.
  Mr. James Thomas, Coordinator
  City of Miami
  Dept. of Vehicle Maintenance
  1390 N.W. 20th Street
  Miami, Florida 33142
  PHONE: 305-579-6745
- 9. CITY OF ORLANDO
  Mr. Alfred Dagon, Chairman
  400 South Orange Avenue
  Orlando, Florida 32801
  PHONE: 305-849-2645
- 10. COLLIER COUNTY BUILDING CONTRACTORS ASSOCIATION Mr. David A. Nesbitt, Director 3227 Horseshoe Drive, South Naples, Florida 33942 PHONE: 813-643-1088
- 11. FLORIDA EAST COAST CHAPTER AGC OF AMERICA INC.
  Mr. Arthur J. Cohen, Training Director
  2617 Australia Avenue
  West Palm Beach, Florida 33407
  PHONE: 305-833-3609
- 12. FLA. GULF COAST CHAPTER ABC, INC.
  Mr. Steve P. Cona, Jr., Educational Dir.
  P.O. Box 152107
  Tampa, Florida 33684
  PHONE: 813-879-8064
- 13. FLA. WEST COAST CARPENTERS
  Mr. Larry Jones, Chairman
  7930 U.S. 301 North
  Tampa, Florida 33610
  PHONE: 813-985-5555
- 14. G.L.B. CONSTRUCTION COMPANY, INC. Mr. Gordon L. Beeson, President 1018 Orange Street Titusville, Florida 32780
- OF BROWARD COUNTY
  Mr. Roger D. Childers, Secretary
  Mr. Scott V. Koehler, Chairman
  3810 Northwest 10th Avenue Oakland
  Fort Lauderdale, FL 33307
  PHONE: 305-928-0215

Of the strategies offered in the questionnaire, the programs utilized mobile carpentry units for recruitment sessions and local T.V. and radio station public service announcements the least.

Other strategies mentioned that were utilized and fairly successful by some apprenticeship programs included:

- 1. Word of mouth by friends and relatives of apprentices.
- 2. Contractor commitments.
- 3. The Florida State Employment Service and Yellow Pages.
- 4. Mass mailings of flyers and promotional information.

### JOB PLACEMENT

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table V-1.7 Job Placement Factors

FACTORS	DEGREE OF INFLUENCE
The quality and adequacy of training provided to the students.	3.48
Students had previous on-site experience.	3.05
Relationship between program personnel and local contractors.	2.86
Existence of an advisory or craft committee for the program.	2.71
Counseling students on job opportunities and requirements.	2.48
Cooperation between instructor and placement officer.	2.48
Providing information on local employment opportunities.	2.33
Help from students' friends and relatives to get job contacts.	2.30

Most programs strongly agree that the quality and adequacy of their training programs is the greatest factor of job placement for carpenter apprentices. The second most helpful factor is previous on-site experience.

The least favorable reason for job placement was rated as help from students' friends and relatives to get job contacts.

It should be noted that three programs, Maintenance Department School Board of Broward County and City of Miami Appren. Comm. and the City of Orlando, recruits only the number of individuals they need for the number of job openings available in their departments.

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table V-1.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an	AVERAGE	MINIMUM	MEDIAN	MUMIXAM
apprentice from one apprenticeship job to another apprenticeship job (in days)	25.8	0.0	10.0	. 180.0

When asked about the average time lag between job placement, a time lag of a month was the overall average. The Maintenance Department of Broward County and the City of Orlando programs reported no lag time at all as did a union program in Southwest Florida. The highest lag time of 180 days was reported by an other (non-union) and a union training agency in Central Florida which are part of one double-breasted company. Because the figures of these two associations were signifigantly larger than the rest of the data, a median of 10 days was calculated.

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program?

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Job Placement Factors after Completion of Table V-1.9 Apprenticeship Training Program

FACTORS	DEGREE OF INFLUENCE
The quality and adequacy of training provided to the students.	3.53
Relationship between program personnel and local contractors.	3.14
Cooperation between instructor and placement officer.	2.79
Counseling students on job opportunities and requirements.	2.65
Providing information on local employment opportunities.	2.50
Help from students' friends and relatives to get job contacts.	2.39
Actively contacting contractors and inviting them to visit the program and interview the students.	2.23
Existence of an advisory or craft committee for the program.	2.07

The quality and adequacy of training provided to the students was again the major factors in job placement after graduation from the apprenticeship program. However, the existence of an advisory or craft committee was the least effective in job placement upon This result is surprising since the completion of the program. the advisory or craft committee is suppose to have good contact with industry.

What percentage of the apprentices who completed your training programs have fulltime carpentry jobs?

Table V-1.10 Percentage of Graduates with Full-Time Carpentry Jobs

Percentage who	AVERAGE	MINIMUM	MUMIXAM
have Full-time Carpentry Jobs	89.4	50.0	100.0

The apprenticeship programs report that the majority of their graduates do have full time carpentry jobs. A union sponsored program in Northeast Florida had the minimum overall response of 50%. Reasons for not having full-time jobs are either because of lack of continuous year round work in the carpentry field or advancement to positions such as superintendent or foreman. The added factor of low hourly wage rates in combination with a lack of continuous work may mean an even bigger predicament for the carpenter which results in a very low annual salary. The wage factor is discussed in more detail in the results of the next question.

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table V-1.11 Average Hourly Wage Upon Graduation

	AVERAGE	MINIMUM	MUMIXAM
Hourly Wage of New Graduate	\$10.30	\$7.95	\$13.50

Wages for the carpentry trade are one of the most important issues. Carpentry apprenticeship programs reported a range of wages from \$7.95/hour in the Central Florida region to a maximum of \$13.50/hour by an other (non-union) program in Southeast Florida for an individual who has just graduated from an apprenticeship program.

The most important factor which needs to be considered in construction is the cyclical nature of the construction industry. While seasonality is not a major concern in Florida, building activity depends on many factors. These factors include interest rates, availability of mortgage funds, government spending and business investment. During economic downturns, carpenters find job openings reduced.

Because of the sensitivity of the construction industry to the business cycle and the short term nature of many construction projects the unemployment rate of construction workers is consistently higher than the rate for all workers in the nonagricultural industries. 46 "The unemployment rate for construction workers varies by the occupation and sector they work in. Fewer electricians than carpenters experience multiple spells of unemployment during a 12-month period; more plumbers than carpenters work year round. 47 In terms of annual salary the carpenter is worse off than other construction trades.

"Most electricians who work at full-time jobs work year round (71 percent in 1981). On the other hand, fewer carpenters who work primarily at full-time jobs work year round (45 percent in 1981). As a consequence, there is relatively little difference between the earnings of the average electrician and those of an electrician who works year round. However, there is a relatively large difference between the annual average earnings of a carpenter who works year round and those of the average carpenter." 48

The average wage of \$10.30/hour multiplied by the typical 2,000 hours/year brings an annual income of \$20,000 which may seem like a reasonable yearly income. However, the Florida Statistical Abstract states that the average amount of hours worked per year by a carpenter is 1,300.49 Taking this into consideration the annual salary would be revised to an average of \$13,000. In comparison, the Florida Statistical Abstract states that the average amount of hours worked per year by an electrician is 1,700.50

In Florida, where the open shop has succeeded in creating a textbook environment of almost pure competition, projects go to "cheaper and cheaper labor," says Joseph E. Martin, president of the Florida Building Trades Council in Tallahassee. He believes that this has created a sharp decline in worker competency levels. He also suggests that skilled construction people refuse

<sup>46</sup> John Lukasiewicz and John Tschetter, "Employment Trends in the Building Trades", Occupational Outlook Quarterly, Spring, 1983, p. 7.

<sup>47</sup> Ibid, p. 7-8.

<sup>48</sup> Ibid, p. 9.

<sup>49</sup> Florida Statistical Abstract, University of Florida, Gainesville, FL, 1986 p. 308.

<sup>50</sup> Ibid.

to work in Florida for wages below the  $\,$  national level  $\,$  and  $\,$  leave  $\,$  Florida after their first job.  $^{51}$ 

Table V-1.12 compares Florida's carpentry wages to other cities throughout the nation to show how Florida's wages rate with the rest of the nation. The following wages listed reflect wages for carpenters who have been working journeymen status for some length of time and are not directly compared to those wages for those who have recently acquired journeymen status.

Table V-1.12

Hourly Wage Scales in Construction
August 1, 1986\*

		<u> </u>	
New York	28.82	Seattle	19.90
Anchorage	28.60	Cincinnati	19.76
San Francisco	28.00	Milwaukee	19.57
Los Angeles	25.64	Kansas City	19.52
Cleveland	25.16	New Haven	19.35
Boston	24.39	Phoenix	18.12
Philadelphia	24.38	New Orleans	17.91
Newark	23.71	Dallas	17.22
Detroit	22.91	Denver	17.20
St. Louis	21.62	Albuquerque	16.60
Chicago	21.30	Jacksonville	15.90
Minneapolis	20.48	Atlanta	15.32
Portland	20.45	Norfolk	14.75
Pittsburgh	20.12	Birmingham	14.60
Pittsburgh	20.12	Birmingham	14.60

<sup>\*</sup> Rate per hour includes base rate plus fringe benefits. These wages reflect averages of both union and non-union wages. Source: Engineering News Record, September 18, 1986, p.p. 53-55.

<sup>51 &</sup>quot;Some Trades Cooling to Give-backs", Engineering News Record, 18 September, 1986, p 61.

### SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system: 4 = al

4 = absolutely necessary

3 = necessary

2 = desirable

1 = unnecessary

### Table V-1.13 Importance of Skills

	<del></del>
SKILLS	AVERAGE
	3.63
Safety	3.58
Read blueprints	3.50
Frame floor and sills.	3.48
Install door, window frame and units.	3.46
Construct forms (footing, walls, edge, curb)	3.46
Construct forms (piers, columns, beam, slab, stairs	3.40
bridge, deck)	3.46
Frame partitions.	3.38
Install decking and sheathing.	
Install exterior wall covering and trim.	3.33
Construct interior stairs.	3.29
Conduct site preparation and layouts.	3.21
Install structural timber.	3.13
Install drywall material.	3.08
Frame roofs.	3.04
Preplan future activities.	3.04
Install cabinets, fixtures and shelving.	3.04
Install paneling, furring, soffit ceiling.	3.04
Install paneling, fulling, solile soliling.	2.92
Apply weather stripping and caulking. Install insulation and sound control material.	2.67
Install insulation and sound control material.	2.29
Build trusses.	safety wa

When assessing the importance of various skills, safety was the number one skill that the programs desired overall. Blueprint reading also rated very highly as being one of the most important skills possessed by a skilled carpenter.

The skill deemed to be most unimportant for a carpenter to posses was building trusses. This will probably be the case as truss prefabrication becomes more commonplace.

### ASSESMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table V-1.14 Opinion of Carpenter Shortage

RESPONSE	NUMBER OF RESPONSES	8
Yes	15	83.3
No	3	16.7

An overwhelming number of the apprenticeship programs felt that there was definitely a shortage of skilled carpenters. This question received a 72% response rate. The programs who did not feel there was a shortage were all located in Southeast Florida, south of the Palm Beach County area.

Mr. Belcher of the Federal Bureau of Apprenticeship and Training in Tallahassee was asked about this issue and he is not totally convinced of a shortage of a complete carpenter but feels that there is definitely not a shortage of carpenters who specialize in one aspect of carpentry.

An apprenticeship program in Northeast Florida commented that recruiting is difficult and contractor support is minimal. Mr. Nipper a business agent for the United Brotherhood of Carpenters and Joiners of America union in Gainesville said that there was not a shortage of manpower but a definite shortage of the "skilled" carpenter. The most often voiced complaint concerning this issue from the apprenticeship programs is that young people are not always willing to attend the evening classes and that there is very little participation from contractors.

John Weicherding of Associated General Contractors identified some reasons why contractors were not willing to participate.

- "1) Contractors are unwilling to commit to a multi-year employment commitment normally associated with formal apprentice programs.
  - 2) Contractors have tended to specialize in the type of work they perform with their own carpenters. As a result, major segments of the training included in a carpenter's apprentice program does not apply.

- 3) Few apprentices stay with the same contractor for the entire apprentice period resulting in a feeling that training apprentices is training for another employer.
- 4) In an open shop environment, the full cost of apprentice training must be carried by the contractor and must be justified on an apprentice to apprentice basis.
- 5) The lack of Davis Bacon projects has reduced the financial incentive to a contractor to participate in an apprentice program."52

### SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry?
Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table V-1.15 Degree of Specialization in Carpentry

Degree of	AVERAGE
Specialization	3.59

The general consensus among the apprenticeship programs is that the carpentry trade has become specialized. Mr. Dwight Foster of Associations of Builders and Contractors Institute, Inc. says that modern construction techniques have led to specialization and that a contractor or individual is not going to pay or attend full carpentry training when all the mechanic may do is one task. Some carpentry programs have suggested that there may be a need to train in particular aspects of the carpentry trade as opposed to an overall training in carpentry.

<sup>52</sup> John Weicherding, Associated General Contractors, letter dated April 6, 1987.

<sup>53</sup> Dwight Foster, Associations of Builders and Contractors Institute, Inc., Letter dated May 12, 1987.

Will the future carpenter be performing a broader variety of

tasks? Use the following rating system: 4 = Much broader

3 = Broader

2 = No change

1 = Narrower

Table V-1.16 Broadness of Performance of Carpentry Tasks

TYPE OF CARPENTER	AVERAGE
Form carpenters	2.62
Finish carpenters	2.60
Framing carpenters	2.55

The results of this question tend to support the opinions of specialization of the carpentry trades of the apprenticeship programs. All the types of carpentry mentioned in this table will not be considered to have much of a broader variety of tasks.

### CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Table V-1.17 Apprenticeship Programs' Opinion of Licensing Carpenters

RESPONSE	NUMBER OF RESPONSES	æ
Yes	21	84.0
No	4	16.0

The question of required licensing of carpenters is a volatile one. This question received a 100% response and the majority of the programs agree with licensing of carpenters. They stated various reasons for this opinion. One of the most dominant reasons for this opinion is that they believe it will bring better quality workmanship onto the job site. They feel that licensing would compel a carpenter to have more extensive technical knowledge of the trade and at least a minimum skills level. This would provide the incentive for an individual to go through some organized training. The apprenticeship programs

claim that there are too many unqualified people claiming to be carpenters which in effect cause cost overruns on the job. One apprenticeship program described the present situation as "right now, anyone who owns a pickup truck and saw can call himself a carpenter."

However, 16% of the respondents do not necessarily agree that licensing is the answer to improving skills. They feel passing a written exam does not necessarily prove their skill or ability. In addition it would raise costs and it would be another method of raising tax revenue. One apprenticeship program expressed that carpentry licensing would take away a privilege from the general contractor who has the license and is ultimately responsible for the work being produced.

Many of the programs who do advocate licensing stress that it should be handled in a careful manner. They would like to see licensing to a certain degree but not as a contractor. One apprenticeship program suggested a journeyman card to indicate that the individual is qualified in all tasks of the trade. Another program suggests that licensing be by specialty area (forms, finish, etc.).

In an interview with Mr. Richard Y. McCauley, chief of the Florida Bureau of Apprenticeship in Tallahassee, Mr. McCauley stated that if licensing went into effect that "there is a need for standardization for experienced time frames, according to industry practice to be used in licensing, examination, entrance or qualifying criteria."54

<sup>54</sup> Richard McCauley, Chief of the Florida Bureau of Apprenticeship, Tallahasee, Personal interview on 26 May 1987.

### COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

<u>Table V-1.18</u> Apprentice/Industry Communication

TYPES OF COMMUNICATIONS	AVERAGE
Formal meeting of the two groups	3.22
Advisory committee	3.00
Attending industry functions	2.82
Written contact	1.82

In order to get more cooperation from industry a good communication level is of the essence. Overall the apprenticeship programs feel that a formal meeting of the two groups is the best method of establishing a good communication level followed closely by use of their advisory committee. Written contact was deemed to be the least useful.

What level of communication does the apprenticeship program have with the following institutions? Choose one the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table V-1.19 Communication Levels

INSTITUTIONS	AVERAGE
Vocational training centers	3.38
Construction industry (contractors)	3.09
Open shop apprenticeship programs	2.96
Community College Training	2.46
Union apprenticeship programs	2.33

The apprenticeship programs overall, perceive that their level of communication is best with vocational training centers and at the lowest level with union apprenticeship programs.

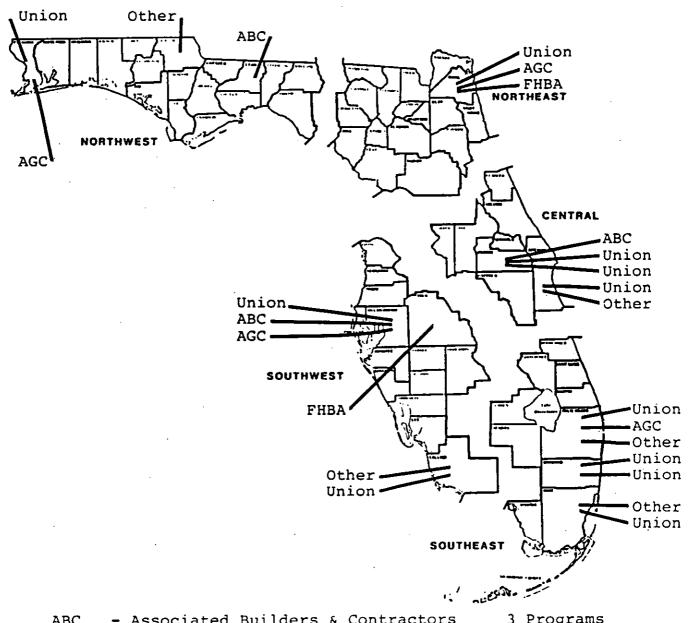
ANALYSIS BY REGION

### ANALYSIS BY REGION

In addition to an overall, total population analysis, it is necessary to examine the statistical data by the five market regions in Florida. The construction activity varies throughout the five regions and each region has its own specific requirements and needs for the particular issues being discussed. In the discussion of the analysis by region, comparisons are made between the five major regions and statewide results. The following tables include results of question which were considered to be significant. For a more detailed statistical tables and results to all questions by region see Appendix B-1 through B-5.

The map in Figure 5-2.1 indicates the location of the various sponsoring carpentry apprenticeship training programs throughout the five major regions of the state. The regional breakdown of the state is derived from the 1986 Florida Statistical Abstract and is used for market region and population studies for census purposes.

## LOCATION OF APPRENTICESHIP PROGRAMS AND SPONSOR



ABC - Associated Builders & Contractors	3	Programs
AGC - Associated General Contractors	4	Programs
FHBA - Florida Homebuilders Association	2	Programs
Union - United Brotherhood of Carpenters and Joiners of America	11	Programs
Other - Any individual or group program which is non-union and does not belong to any one particular major building organization.	5	Programs
Total	25	Programs

Figure 5-2.1

## BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

Table V-2.1 Background Information

	AVERAGES							
BACKGROUND INFORMATION	S.E. REGION	S.W. REGION	CENTRAL REGION	N.E. REGION	N.W. REGION	STATE- WIDE		
Duration of program in years	3.8	3.8	3.8	3.8	4.0	3.8		
Number of apprentices presently enrolled	59.4	32.5	15.4	38.7	18.8	35.2		
Available capacity	118.2	69.4	66.7	80.5	42.7	81.3		
Total hours of class- room instruction in the program	575	620	607	645	604	605		
Total hours of job site training in the program	7,667	7,667	7,333	7,667	8,000	7,667		
Number of apprentices who graduate each year from program	18.7	15.4	10.0	3.0	1.3	11.5		
Average age of graduates	24.5	25.3	24.5	26.0	27.0	25.3		

The majority of regions report an average duration of 3.8 years. The N.W. region is the only region which reports a 100%, 4 year duration. However, the majority of all programs (83%) do have 4 year programs.

The lowest average enrollment rate is in the central region and the highest rate is in the S.E.. In a comparison of the enrollment rates and available capacities, all the programs are utilizing approximately half their capacities with the exception of the central region. The central region utilizes about 25% of its capacity.

The S.E. region holds the lowest average in the state of classroom instruction hours of 575 hours and the N.E. region holds the highest of 645 hours. The highest statewide average of 8,000 on-the-job training hours is in the N.W. region, and the central region indicates the lowest throughout the state of 7,333 hours.

The N.W. region reports an extremely low number of individuals who graduate from carpentry apprenticeship programs each year of 1.3/year and the situation is not much better in the N.E. region of 3/year. Higher rates are in the S.E. and S.W. regions which probably need these graduates in consideration of the high construction activities in the West Palm Beach and Naples areas being the fastest growing areas in the state.

The highest average graduation age is 27 years of age in the N.W. region which appears to be higher than the typical age to start a career.

### WAGES

Wages have a definite correlation within the regions of the state. They tend to follow the cost of living patterns within the specific regions. In Figure 5-2.2, wages are graphically compared between the regions. It is evident that the wages are considerably higher in the S.E. region and are lowest in the N.W. region.

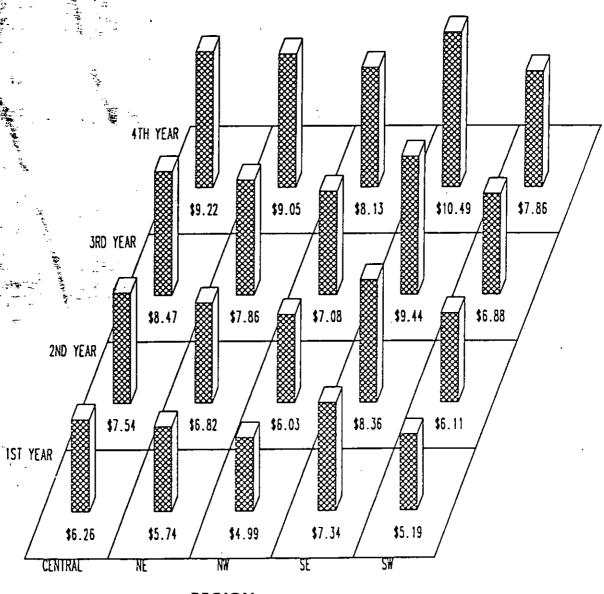
In Figures 5-2.3 through Figures 5-2.7 a comparison is made between actual wages and the opinions of what wages should be for each individual region. In most cases opinions of wages for each year of apprenticeship was higher than the actual wage being paid. The only region which was contradictory to this trend was the central region which reported that actual wages were higher than what the programs thought they should be.

	Table V	-2.2		
Average Hourly	Wage of	Individual	Who Has	
Just Graduated f	rom an A	pprenticesh.	ip Progr	am

S.E.	Ś.W.	CENTRAL	N.E.	N.W.	STATE-
REGION	REGION	REGION	REGION	REGION	WIDE
\$12.01	\$9.32	\$9.64	\$9.94	\$9.72	\$10.30

Apprenticeship programs were also asked about wages upon graduation from an apprenticeship program. It is clearly evident that the S.E. region would be the most prosperous region to be employed in a financial sense. This region outranks the rest of the state in a significant hourly pay difference ranging from \$2.07 more/hour to \$2.69 more/hour.

# AVERAGE HOURLY WAGES FOR AN APPRENTICE BY REGION



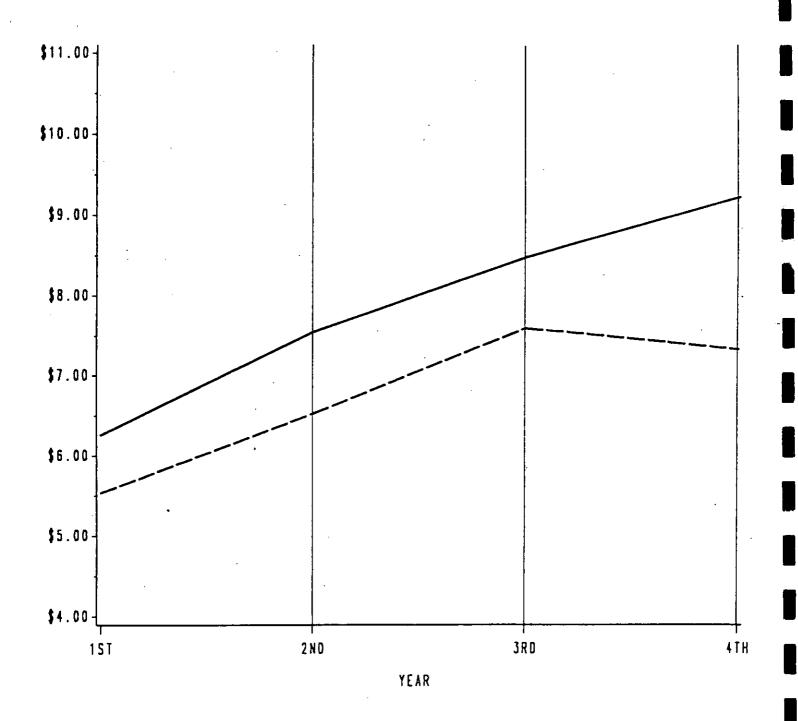
REGION

Figure 5-2.2

## COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGE

CENTRAL REGION

HOURLY WAGES



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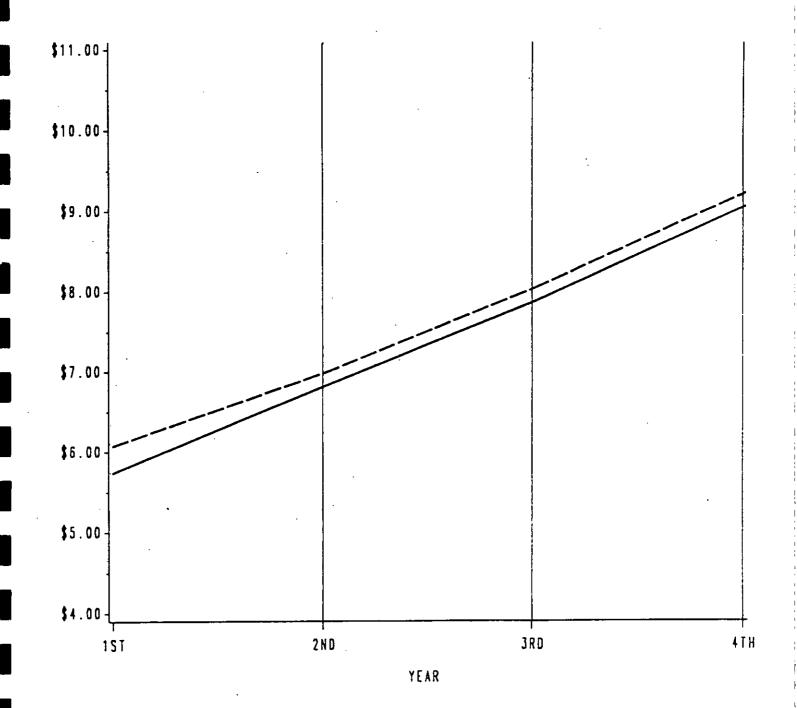
- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-2.3

### COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGES



HOURLY WAGES



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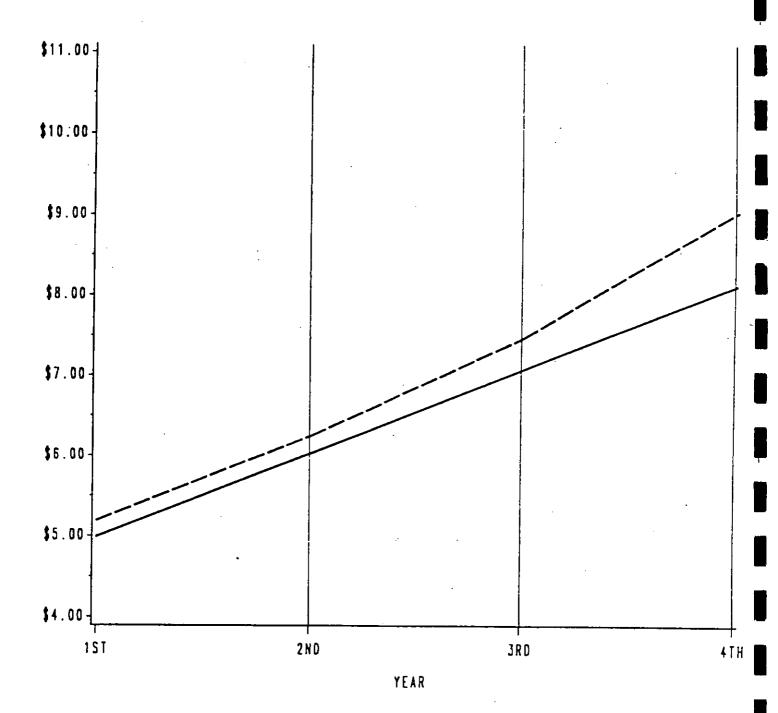
- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-2.4

## COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WACE



HOURLY WAGES



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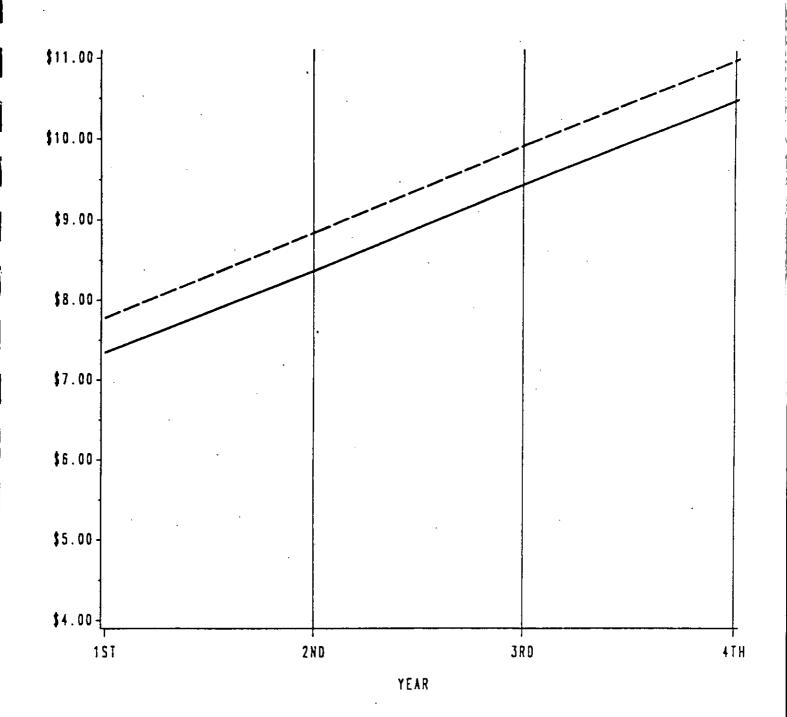
- - - - ACTUAL WAGES

Figure 5-2.5

### COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGES

SE REGION

HOURLY WAGES



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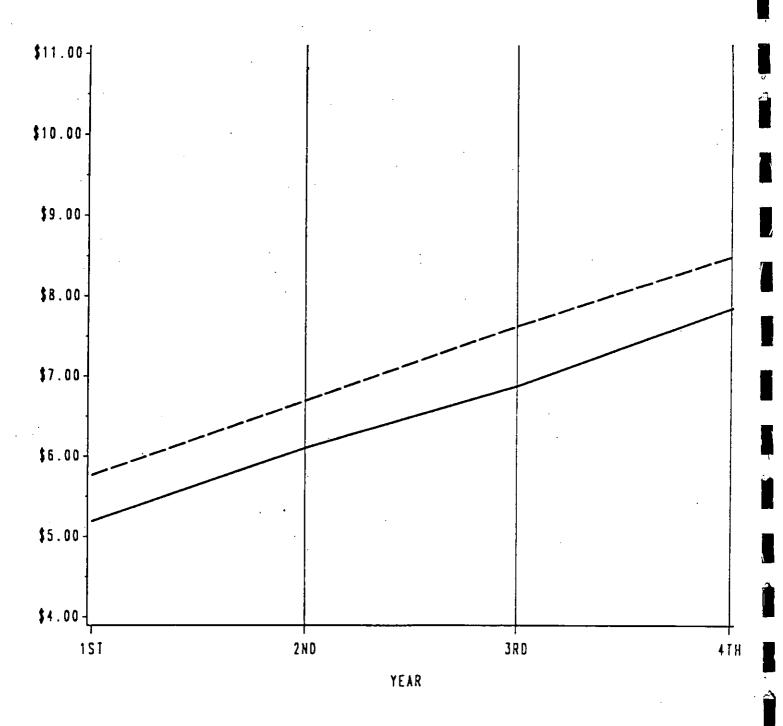
- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-2.6

## COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGE

SW REGION

HOURLY WAGES



LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-2.7

### JOB PLACEMENT

Table V-2.3

Average Time Lag for Placing an Apprentice from One Apprenticeship job to another Apprenticeship Job (in days)

S.E.	S.W.	CENTRAL	N.E.	N.W.		EWIDE
REGION	REGION	REGION	REGION	REGION		MEDIAN
3.1	8.6	92.5	5.3	22.5	25.8	10.0

The S.E. region reported the shortest lag time of about 3 days between placement of jobs. The central region reported an extremely high lag time because of two programs (a union and other (nonunion) program) which reported a lag time of 180 days each. Both of these programs are part of one double-breasted operation. It may be more beneficial to compare the regional averages to the statewide median of 10 days since this figure is a more realistic number in considering the lag time throughout the state.

## Table V-2.4 Percentage of Apprentices who completed Training Program and Have Full-Time Carpentry Jobs

S.E.	S.W.	CENTRAL	N.E.	N.W.	STATE-	
REGION	REGION	REGION	REGION	REGION	WIDE	
86.5%	90.0%	100.0%	83.3%	100.0%	89.4%	

The above table indicates that the majority of apprentice graduates do hold full-time carpentry jobs. It may seem contradictory that the central region reports a 100% carpentry employment rate since it reports an extremely high time lag for placing an apprentice between jobs. However, the two apprenticeship programs which are part of a double-breasted organization, did not respond to this question.

### CARPENTER SHORTAGE

### Table V-2.5

Percentage of Apprenticeship Programs who Agree with the View of a Projected Shortage of Skilled Carpenters in the Coming Years

S.E.	S.W.	CENTRAL	N.E.	N.W.	STATE-
REGION	REGION	REGION	REGION	REGION	WIDE
57.1%	100.0%	100.0%	100.0%	100.0%	83.3%

This issue is an extremely important issue when analyzed on a regional basis. Of all the respondents to this question, only the S.E. region as a whole is not totally convinced of a shortage. Upon further investigation of the data, all of the programs responding to this question who were south of the Palm Beach county line did not feel there was a shortage of carpenters. This area is also experiencing a slow down in construction as well. On the other hand, all the Palm Beach area programs responded that there is a shortage of carpenters and this area is also considered to be the fastest growing county in the state.

Even though the N.W. region is not experiencing a considerable amount of construction, they are also implying that there is a shortage. This could possibly be a result of the very low enrollment rate of carpentry apprenticeship programs in this region.

### DEGREE OF SPECIALIZATION IN THE CARPENTRY FIELD

### Table V-2.6

Apprenticeship Program's Opinion of the Degree of Specialization which has Entered the Field of Carpentry

Rating System: 4=Large Degree

3=Necessary 2=Desirable 1=No Degree

S.E.	S.W.	CENTRAL	N.E.		STATE-	
REGION	REGION	REGION	REGION		WIDE	
3.67	3.83	4.00	4.00	3.00	3.59	

It is the general consensus of all regions that the field of carpentry will become specialized to a large degree. It may be that those programs which are less than 4 years in duration may already be responding to the degree of specialization which is occurring in the carpentry field.

### CARPENTER LICENSING

#### Table V-2.7

Percentage of Apprenticeship Programs who
Feel That There Would be Better Skilled Carpenters
If Licensing Were Required

S.E.	S.W.	CENTRAL	N.E.	N.W.	STATE-	
REGION	REGION	REGION	REGION	REGION	WIDE	
100.0%	83.3%	100.0%	66.7%	50.0%	84.0%	

A 100% response rate was received on this issue. The S.E. and central region were totally convinced of a need for licensing carpenters. The N.W. region was only half convinced of this need and did not necessarily agree that licensing would provide more skilled carpenters.

### COMMUNICATION WITH INDUSTRY

### Table V-2.8

Best method of establishing an apprentice/industry linkage.
Rating system:

4=most important

3=important

2=of some importance

1=not important

		<u> </u>	mpor carre			
	S.E. REGION	S.W. REGION	CENTRAL REGION	N.E. REGION	N.W. REGION	STATE- WIDE
Formal meeting of the two groups	3.50	3.00	2.60	3.67	3.67	3.22
Advisory committee	3.00	3.17	2.20	3.67	3.50	3.00
Attending industry functions	2.50	3.17	2.60	3.00	3.00	2.82
Written contact	2.00	2.00	2.00	1.00	1.50	1.82

Level of communication between the apprenticeship program and the following institutions.

Rating system:

4=very close

3=close

2=remote

1=very remote

	S.E. REGION	S.W. REGION	CENTRAL REGION	N.E. REGION	N.W. REGION	STATE- WIDE
Vocational training centers	3.86	3.67	2.80	3.00	. 3.00	3.38
Construction indus. (contractors)	2.71	3.67	2.60	3.67	3.33	3.09
Open shop apprenticeship programs	3.80	3.33	2.40	3.00	2.33	2.96
Community college Training	3.00	1.83	2.20	3.33	1.67	2.46
Union apprentice- ship programs	3.00	2.17	2.00	2.00	1.67	2.33

When questioned about establishing ties between apprenticeship programs and the construction industry the two best methods were indicated to be a formal meeting of the two groups and use of the advisory committees.

The strongest ties were indicated by the S.E. region which had very close ties with the vocational programs and the open shop apprenticeship programs.

ANALYSIS BY ASSOCIATION

### ANALYSIS BY ASSOCIATION

In the analysis of the data, an analysis by association was deemed necessary. The various building associations which provide the carpentry apprenticeship programs indicate their own unique conditions and perceptions on various issues. In this section a comparison is made between the five building associations and statewide results. The following tables include results of questions which were considered to be significant. For more detailed statistical tables and results to all questions on the questionnaire by association see Appendix B-6 through B-10.

The chart in Figure 5-3.1 indicates existing carpentry apprenticeship programs within the state by association on a numerical and percentage basis. The data indicate that the union programs hold the majority of carpentry programs with a 44% share of total programs and the Florida Home Builders Association make up the smallest portion at an 8% share of all programs.

## CARPENTRY APPRENTICESHIP TRAINING PROGRAM

### IN FLORIDA BY ASSOCIATION

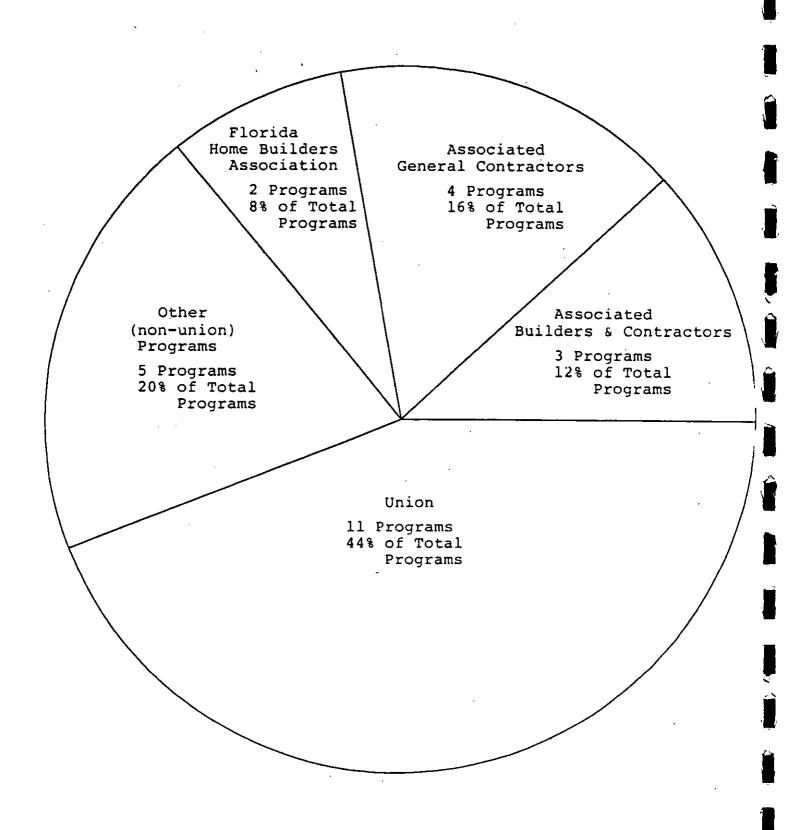


Figure 5-3.1

## BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

Table V-3.1 Background Information

DACKCROUND THEODIA MADA	AVERAGES							
BACKGROUND INFORMATION	ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE		
Duration of program in years	3.7	3.6	4.0	4.0	3.8	3.8		
Number of apprentices presently enrolled	15.3	36.3	25.0	54.2	8.4	35.2		
Available capacity	54.3	98.3	55.0	90.4	82.0	81.3		
Total hours of class- room instruction in the program	598	642	648	587	597	605		
Total hours of job site training in the program	7,333	7,250	8,000	8,000	7,333	7,667		
Number of apprentices who graduate each year from program	18.3	11.5	3.5	11.9	2.0	11.5		
Average age of graduates	25.3	25.0	28.0	25.4	23.8	25.3		

Of all the carpentry programs, the union programs average the highest enrollment of 54 apprentices in carpentry training programs. Other (non-union) programs average the lowest enrollment of 8 apprentices. Union and FHBA programs utilize about half their capacity. AGC programs indicate the most capacity but utilize only a third of their capacity. Other (non-union) programs utilize the least capacity at 10% of its capacity.

ABC programs indicate the highest number of graduates (18) and the other (non-union) programs indicate the lowest number of graduates (2).

The FHBA has the highest average age of 28 years of age for graduates and other (non-union) programs indicate the lowest average age of 24 years. Assuming an approximate 4 year program duration this demonstrates that other (non-union) programs are able to attract people at a younger age group.

### WAGES

In Figure 5-3.2, a comparison of average hourly wages of all the associations are graphically depicted. The data indicate that union and other (non-union) programs pay the highest wages. However, when compared to enrollment rates, union programs have the highest average enrollment but the other (non-union) programs have the lowest average enrollment rates. The other 3 associations are all similar to each other in their respective wage rates.

In Figures 5-3.3 through Figures 5-3.7 a comparison is made between actual wages and the opinions of what wages should be for each association. In Figure 5-3.3 the opinion of wages for the third year of apprenticeship is higher than that of the fourth year. This is because one of the ABC programs is a 3 year program and wages for the third year in this program were higher than the opinion of wages of the fourth year of apprenticeship of other ABC programs. The union and other (non-union) programs indicate that actual wages should be lower.

Table V-3.2						
Average Hourly	Wage of Individual Who Has					
Just Graduated from an Apprenticeship Program						

ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE	
\$9.25	\$9.00	\$8.00	\$11.20	\$11.14	\$10.30	

Apprenticeship programs were also inquired about average hourly wages upon completion of a carpentry apprenticeship program. Again, union and other (non-union) programs held the top wage rates. FHBP reported the lowest wage rate of \$8.00/hour of all the associations.

## AVERAGE HOURLY WAGES FOR AN APPRENTICE BY ASSOCIATION

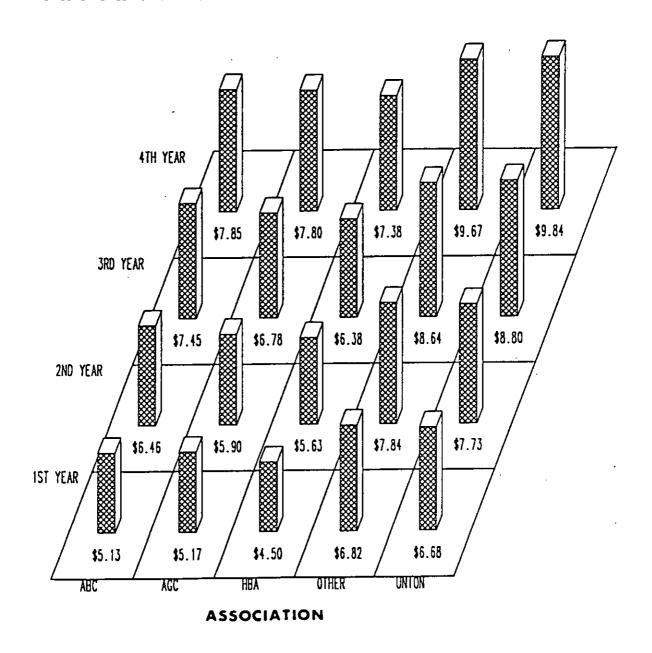
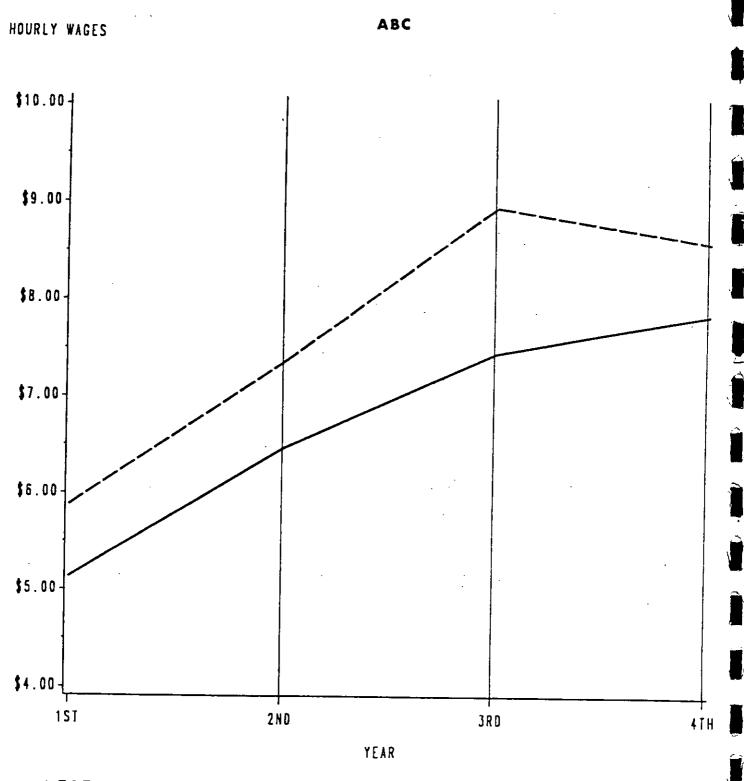


Figure 5-3.2

### COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGE



LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-3.3

### COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGES

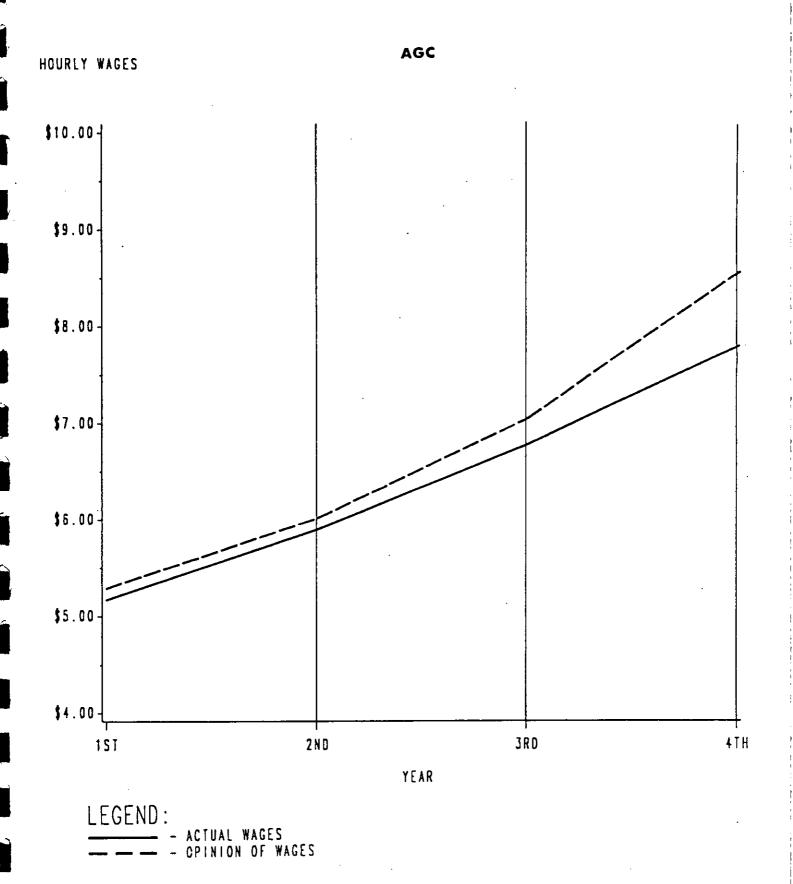
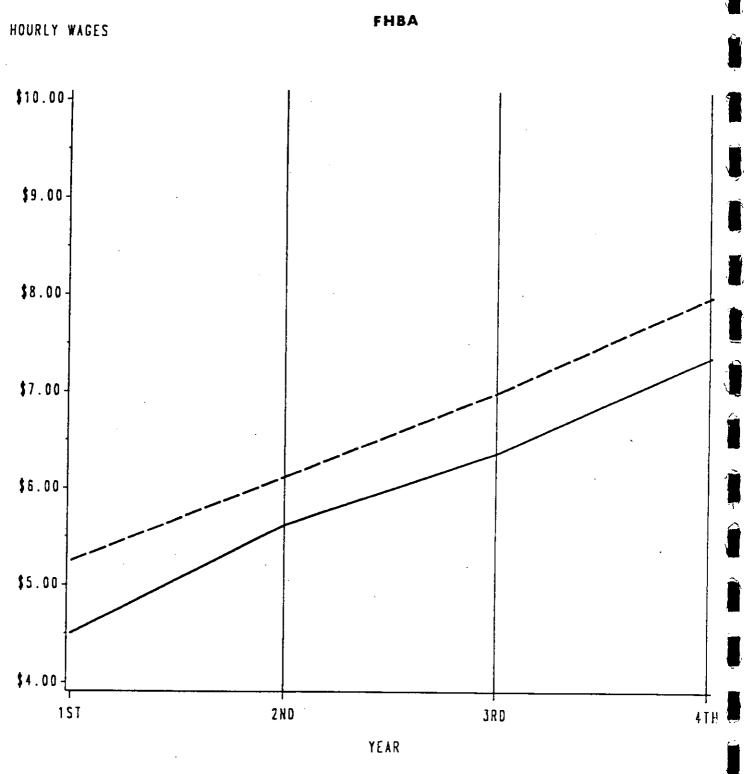


Figure 5-3.4

### COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WA

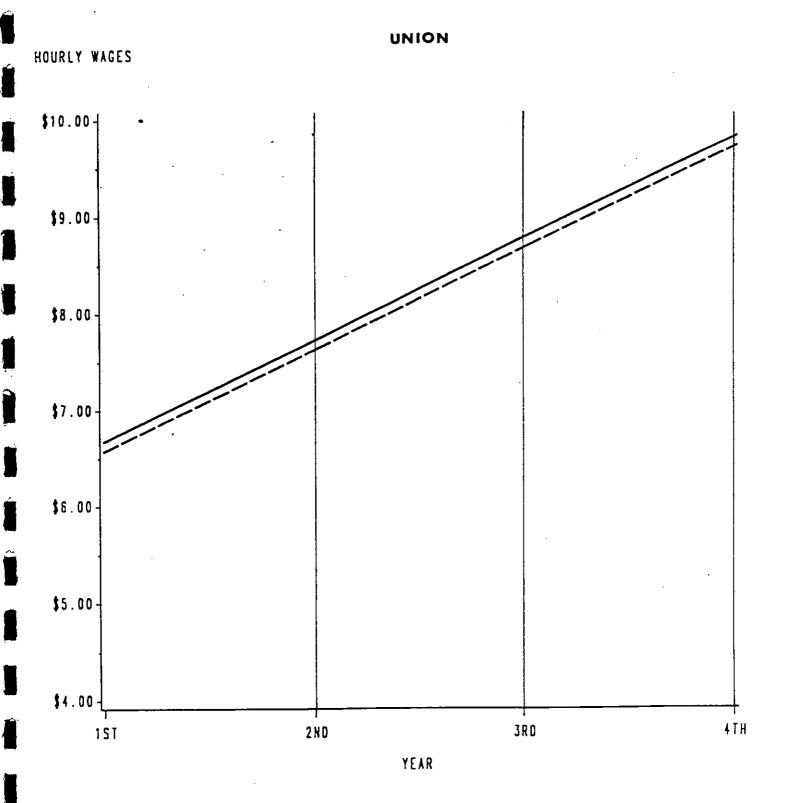


LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-3.5

### COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WAGES

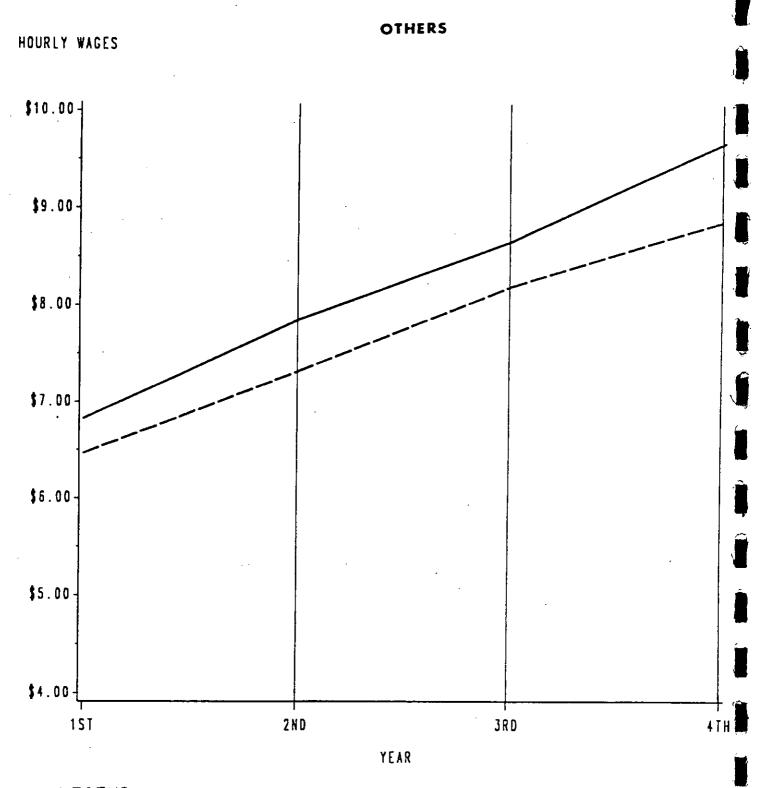


LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-3.6

# COMPARISON BETWEEN ACTUAL WAGES AND OPINION OF WA



LEGEND:

- ACTUAL WAGES
- OPINION OF WAGES

Figure 5-3.7

#### JOB PLACEMENT

Table V-3.3

Average Time Lag for Placing an Apprentice from One
Apprenticeship job to another Apprenticeship Job (in days)

ABC	AGC	FHBA	מט.	ON OTHERS				EWIDE
			AVG.	MEDIAN	AVG.	MEDIAN	AVG.	MEDIAN
10.0	8.5	8.0	92.5	7.0	61.5	3.0	25.8	10.0

Two programs (union and other (non-union)) which are part of a double-breasted operation in central Florida have an average lag time of 180 days. Because these numbers were significantly higher than the rest of the figures given, medians were determined for those categories which would be affected by these two programs to use as a more realistic number in investigating time lags in job placement. When utilizing the median time lag figure, other (non-union) programs appeared to have the highest success rate in placing apprentices on a quicker basis. ABC programs had the highest time lags of 10 days when placing an apprentice.

# Table V-3.4 Percentage of Apprentices who completed Training Program and Have Full-Time Carpentry Jobs

ABC	AGC	AGC FHBA		OTHERS	STATE- WIDE	
100.0%	93.3%	95.0%	86.1%	86.7%	89.4%	

Overall, the programs indicate the majority of the graduates do hold full-time carpentry jobs. ABC programs indicate that 100% of their apprentices hold full-time carpentry jobs upon graduation. However, some programs have explained that some of their exceptional students move right into foreman or supervisor positions upon graduation.

#### CARPENTER SHORTAGE

Table V-3.5

Percentage of Apprenticeship Programs who Agree with the View of a Projected Shortage of Skilled Carpenters in the Coming Years

ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE	
100.0%	100.0%	100.0%	75.0%	66.7%	83.3%	

Two out of the five associations - union and other (non-union) programs - do not totally agree that a shortage will occur. The union also has much more flexibility of mobilizing craftsmen to the areas in which they are need. However, these results are more significant when observed on a regional basis which indicates that only the S.E. region is not totally convinced of a carpenter shortage. The union and other (non-union) programs who did not agree with the shortage are all located within the S.E. region.

<sup>55</sup> Charles Nipper, United Brotherhood of Carpenters and Joiners of America, Telephone conversation on 25 August 1987.

#### DEGREE OF SPECIALIZATION

#### Table V-3.6

Apprenticeship Program's Opinion of the Degree of Specialization which has Entered the Field of Carpentry

Rating System: 4=Large Degree

3=Necessary 2=Desirable 1=No Degree

ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE	
3.33	4.00	4.00	3.55	3.33	3.59	

All the programs do consider that specialization is necessary within the field of carpentry and the FHBA and AGC programs feel that the degree of specialization has entered the field of carpentry to a large degree.

#### CARPENTER LICENSING

#### Table V-3.7

Percentage of Apprenticeship Programs who
Feel That There Would be Better Skilled Carpenters
If Licensing Were Required

ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE	
100.0%	50.0%	100.0%	90.9%	80.0%	84.0%	

The majority of the programs indicated that there would be better skilled carpenters if licensing were required. The ABC and the FHBA programs are in complete agreement of licensing. Half the AGC programs - one located in the N.E. region and one located in the N.W. region - were not in favor of licensing carpenters.

#### COMMUNICATION WITH INDUSTRY

#### Table V-3.8

Best method of establishing an apprentice/industry linkage.

Rating system:

4=most important

3=important

2=of some importance

1=not important

	ABC	AGC	FHBA.	UNION	OTHERS	STATE- WIDE
Formal meeting of the two groups	3.00	3.50	3.00	3.20	3.85	3.22
Advisory committee	3.50	3.75	4.00	2.50	2.75	3.00
Attending industry functions	2.50	3.00	3.00	2.80	2.75	2.82
Written contact	2.50	1.25	1.50	2.00	1.75	1.82

Level of communication between the apprenticeship program and the following institutions.

Rating system:

4=very close

3=close

2=remote

1=very remote

		T-AGIĀ	remore			
	ABC	AGC	FHBA	UNION	OTHERS	STATE- WIDE
Vocational training centers	3.67	3.75	3.50	3.27	3.00	3.38
Construction indus. (contractors)	3.33	3.50	3.50	2.82	3.00	3.09
Open shop appren- ticeship programs	4.00	3.25	4.00	2.00	3.50	2.96
Community college Training	2.00	3.50	3.50	1.78	2.75	2.46
Union apprentice- ship programs	1.00	1.00	1.50	3.64	1.50	2.33

Advisory committees were the best methods for establishing linkages with industry for the ABC, AGC, and FHBA programs and formal meeting of the two groups were considered the best methods for union and other (non-union) programs.

ABC and FHBA programs have very close communication levels with open shop apprenticeship programs. All apprenticeship programs except union programs have very remote communications with union programs.

### **CHAPTER VI**

CONCLUSIONS AND RECOMMENDATIONS

#### CHAPTER SIX

#### CONCLUSIONS

The focus of this study is a concern for the shortage of skilled carpenters. The analysis of data revealed many factors which contribute to this issue. Some of the more dominant factors include recruitment, wages, communication with the construction industry and licensing.

The majority of the carpentry apprenticeship training programs are concerned about a shortage of skilled carpenters. However, a shortage of carpenters must be analyzed on a regional labor market basis. Apprenticeship programs want to be sure that when they enroll an apprentice in their program, they will be able to assure the apprentice full-time employment. Therefore, construction activity within the apprenticeship program's local labor market must be examined to be sure that there is a demand for more carpenters in that area.

However, the greatest barrier to recruiting individuals into the carpentry trade was the status associated with the carpentry trade; it is not perceived to be as high as the status associated with the electrical and plumbing trades. The data indicated that this results from the lower wage rates, lower annual employment rates and no official recognition of the skilled carpenter such as licensing or certification. The data also indicate that there is a large capacity available in the carpentry apprenticeship training programs which is only being half utilized. Therefore,

there is a great need for improvement in recruiting individuals into the carpentry trade.

The issue of wages is perhaps one of the biggest deterrents to attracting people to the carpentry field. Wage rates for carpenters in some areas may appear sufficient. However, since carpenters do not work as many hours per year (on average) as do other trades such as plumbers or electricians, the net annual income is too low to attract qualified recruits to the trade. If contractors are really concerned with the quality of workmanship and have a desire to employ skilled carpenters, then they will have to help to make it an attractive field in terms of wages.

Apprenticeship programs also express a concern for a lack of contractor cooperation. Many contractors are not willing to pay for apprentice training. The nature of the construction industry is that contractors generally employ carpenters for a short term. Therefore, contractors are not convinced that it is worthwhile to of an individual who will be in their pay for training employment for only a short time. Contractors also do not feel that it is their responsibility to pay for training of an individual who will soon be working for other contractors. stress that they are able to train an individual themselves. However, this provides only a limited amount of training in certain tasks and may not be useful to the individual who may be called upon to perform various other tasks in future employment. Contractors should realize that the future pool of trained carpenters will be increased only if they are willing to help provide training now. Although a specific individual may not work for the contractor who paid for his or her training, the individual will be a part of the supply from which all contractors can draw. Therefore, contractors do not necessarily pay for training that will be used exclusively by other contractors. This lack of willingness to train on the contractor's part provides little incentive for the individual to seek out his own training.

When the question arises as to what the requirements are to be a carpenter in Florida, in most cases there are no requirements. This is not the case in many of the other building trades in which completion of a formal training program, and in some cases licensing, is required. There is a need to differentiate between the skilled carpenter and the unskilled carpenter in Florida.

Most of the apprenticeship programs (84%) agree that some form of licensing in the carpentry trade would resolve many of these problems. This would increase the number of training programs by forcing more individuals to go through some formalized training systems in the carpentry trade. This would be an automatic incentive for the contractor to participate in the training programs as well. It would also give the individual who is stating that he or she is a carpenter some credentials to show that they possess the skills necessary to perform their duties in a proper manner on the job. Those apprenticeship programs who did not agree with licensing believed that it was

just another form of raising revenue, and that passing a test did not necessarily mean the individual was a skilled carpenter.

It is probable that a form of licensing or certification and the cost of training would raise costs for contractors. However, in the long run it could save other costs, such as costly errors and job overruns due to insufficient quality of workmanship. Through carpentry certification, a contractor would be able to pick from a pool of individuals who have acquired the necessary training to perform the required tasks of a carpenter in a sufficient manner. The issue of regulating the carpentry trade is a volatile one, but is almost deemed necessary. So far, the volunteer system has not proved to be very effective in supplying industry with enough skilled carpenters. The ultimate decision should be made by the construction industry. If industry deems regulation of the carpentry trade necessary, than it must take care in analyzing the system it chooses to provide this regulation within the state.

#### RECOMMENDATIONS

The following recommendations are possible suggestions by the researcher for remedying the situation of the shortage of skilled carpenters.

- 1) Manpower and Training Committees of the construction associations should conduct a study on the amount of a wage increase necessary to attract enough people to the carpentry trade.
- 2) A more aggressive and creative recruiting program for the carpentry trade should be set up by the construction trade associations (ABC, AGC, Homebuilders, etc.) to encourage more people to enter the carpentry field.
- associations to support apprenticeship programs better through membership on advisory councils. Programs should be established to educate employers on participation in training programs and what consequences they will be facing such as a depletion in the supply of skilled carpenters.
- 4) A joint council with representatives of all major construction trade associations needs to establish certification based on competency. To test this competency level, a written and practical test should be developed to determine who is a skilled carpenter.

#### RECOMMENDATIONS FOR FUTURE RESEARCH

This study of the carpentry apprenticeship training programs in Florida is part of an overall study concerned with the supply and demand of carpenters in Florida. During the data gathering and interviewing process, many of the individuals within the industry, who contributed information, were very receptive to the concerns of this study. Futhermore, they have also indicated a great interest in furthering the study in these capacities:

- 1. Most of the apprenticeship programs were in agreement with some sort of licensing procedure for carpenters and had all types of ideas for implementing this. An in-depth study of how a licensing or certification process could be implemented to best serve the industry would be most beneficial.
- 2. A study could be conducted to develop a competency based testing program both written and practical to determine certified carpenters.
- 3. An in-depth study of the specialization of carpentry could be used by the training programs so they could adopt their curriculum to the specific needs of industry.
- 4. An expansion of this type of study to incorporate other building trades was the most requested topic encountered during interviews with individuals who contributed to the carpentry study.
- 5. After the scope of this study is completed, the study could also be expanded to a national level. As this study has been able to identify problems and impediments in certain areas, a national study could do the same. An investigation would be

conducted throughout the major regions of the country to see if there are specific areas of improvement in the construction trades which could be identified and remedied.

### **APPENDICES**

# APPENDIX A

QUESTIONNAIRE PACKAGE



#### SCHOOL OF BUILDING CONSTRUCTION UNIVERSITY OF FLORIDA GAINESVILLE, 32611

PHONE 904 392-596 904 392-02 SUNCOM 622-02

FACULTY

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J. Morris Trimmer, DBA Howard I. Underberger

Loys A. Johnson, FAIC Emeritus

Thomas E. Martin, Emeritus

C. Dawson Zeigler, Jr. Emeritus

#### SAMPLE OF COVER LETTER

March 28, 1987

Mr. Dwight L. Foster SOUTHEAST FLORIDA BUILDERS APPRENTICESHIP BOARD 4700 N.W. 2nd Avenue, Suite 104 Boca Raton, Florida 33431

Dear Mr. Dwight L. Foster,

In cooperation with the Building Construction Industry Advisory Committee, the School of Building Construction at the University of Florida is conducting a study concerning apprenticeship training programs. Specifically, to determine whether skilled carpenters are being trained in sufficient numbers to fulfill the needs of the industry, and to identify the most productive recruiting practices utilized to reach those numbers. We also want to find out which placement methods are most effective in obtaining jobs for the trainees while in the programs as well as after completion.

Your cooperation will be of great benefit to us as well as the construction industry. Please take a few minutes of your valuable time to fill out the attached questionnaire and return it in the enclosed self addressed stamped envelope. If you have any questions concerning this study or the questionnaire please contact Ali Markus or Sheli Romer at 904-392-6755. Thank you for your consideration.

Sincerely,

Brisbane H. Brown, Jr. Professor and Director

BHB:sr

#### QUESTIONNAIRE

	of apprenticeship program								—
onta	ct person Position								
hone									
lumbe	r of apprentices presently enrolled Available	capac!	ty _						
fow at	many hours of each are in the program? classroom instruction			job st	te tra	lning			
lumbe	er of apprentices who graduate each year from program	Avera	ge ag	e of g	raduate	·s			
ihat	is the average hourly wage of the following? lst year apprentice 2nd year apprentice 3rd year appre	ntice	4ti	year	apprent	tice			
In yo	our opinion, what should be the average hourly wage of the follow lst year apprentice 2nd year apprentice 3rd year appre	ring?	411	year	appreni	tice			
1. !	In your opinion, are the apprenticeship training programs fulfill demand for trained carpenters?	ing the	. –		ye	<u> </u>		ng	
2. 1 3. / 4. (	Is apprenticeship recruiting adequate?  Are local contractors aware of the existence of your program and to your program to supply them with trained carpenters?  Do you think apprenticeship programs are being properly marketed employers?						_		
5. I	Below, several possible strategies are listed for increasing appr the degree of use and the degree of success for each item listed?	entices Pleas	hip ie us	recruit e the 1	ment. 'ollowi	in your	opini g syst	on, wi em:	hat 1
	4 - extremely utilized, extre 3 - utilized, successful 2 - partially utilized, parti 1 - not utilized, not success	ially su							
	Add and the second of the seco	4	utțí	ree of ization 2	٠ .		Degre Succ	ess	1
<b>b.</b>	Advertising the program in local newspapers and journals. Instructor takes a mobile carpentry workshop to conduct recruit- ment sessions in high schools and malls. Development of slide or video tape presentations for distribution	4	3	2 2	1	1	3	2	1
d. e.	throughout the region. Providing tours of the program for prospective students. Utilization of local radio and T.Y. stations to place public	4			•	4	_	_	ı
f.	service announcements about the training program. Staff takes past and present students to feeder schools to provi honest, realistic information regarding the training program.	44				4			1
ħ.	Utilizing advisory committee activities to recruit apprentices. Other	- '	,	٠	•	-	,	٠	1
6.	In your opinion, which of the following factors had the most infi apprenticeship training programs. Please use the following ration	luence ( ng systi	on th em;	e plac	ement o	f <u>appren</u>	tices_	durin	g the
	4 = extremely influential 3 = influential 2 = little influence 1 = no influence								
b.	Counseling students on job opportunities and requirements. The quality and adequacy of training provided to the students. Students had previous on-site experience.					4	3 3 3	2 2 2	1 1 1
d.	Existence of an advisory or craft committee for the program.  Cooperation between instructor and placement officer					4	3	2 2	1
1.		•				4	3	2	1
ħ.	Providing information on local employment opportunities.					Á	3	ž	i
	Actively contacting contractors and inviting them to visit the printerview the students.	rogi em	Ellig						_
J. 7.	Other	apprent	icesh	tp jab	to ano	ther 4	3	2	l days
8.		uence o wino ra	n the tina	place	ment of	graduat	es af		•
	4 = extremely influential 3 = influential 2 = little influence	•	•	•					
<b>.</b>						•	3		1
Ç.						4	3	2	1
d. e.	Help from students' friends and relatives to get job contacts.					4	3	2	1
f.	Relationship between program personnel and local contractors.					4		_	l 1
h.								,	1
и.	program and interview the students.					4	; ;	2	

11.	Below are a list of various skills which a journeyman carpenter might possess. Please circle the number whi your opinion, will best enable a journeyman to perform on the job. Use the following rating system:	ch in
	4 = absolutely necessary 3 * necessary 2 = desirable 1 * unnecessary	
b.def.ghillmnopqrs.	Read blueprints.  Conduct site preparation and layouts.  Freplan future activities.  Construct forms (footing, walls, edge, curb). Construct forms (piers, columns, beam, slab, stairs, bridge, deck)  Frame floor and sills.  Frame partitions.  Frame partitions.	
12.	A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this and you any plans to increase enrollment in your training program?	have
	To what degree do you feel that specialization has entered the field of carpentry?  Please circle one of the following:  4 * large degree 3 * necessary 2 * desirable 1 * no degree  Will the future carpenter be performing a broader variety of tasks? Use the following rating system:  4 * much broader 3 * broader 2 * no change 1 * narrower	
	framing Carpenters	
15.	In your opinion, would there be better skilled carpenters if they were required to be licensed?  Yes No Why?	<b>-</b>
16.	Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.  Formal meeting of the two groups 4 3 2 1 Advisory committee 4 3 2 1	-
	Advisory committee 4 3 2 1 Attending industry functions 4 3 2 1 Written contact 4 3 2 1 Other (please specify) 4 3 2 1	
17.	In your opinion, what one factor could provide more effective involvement with the construction industry an provide apprenticeship programs with a closer working relationship with industry?	d -
18.	What level of communication do you have with the following institutions?  Choose one of the choices using the following the scale:	-
	4 = very close 3 = close 2 = remote 1 = very remote	
	a. Vocational training centers 4 3 2 1 b. Community College training 4 3 2 1 c. Construction industry (contractors) 4 3 2 1 d. Union apprenticeship programs 4 3 2 1 e. Open shop apprenticeship programs 4 3 2 1	



#### SCHOOL OF BUILDING CONSTRUCTION UNIVERSITY OF FLORIDA GAINESVILLE, 32611

#### SAMPLE OF FOLLOW-UP LETTER

PHONE 904 392-5965 904 392-0202 SUNCOM 622-0202

April 10, 1987

Brisbane H. Brown, Jr., Ph.D. Director Kweku K. Bentil George Birrell, D.Arch. Gary D. Cook Rodney E. Cox, Ph.D. Robert E. Crosland Bill G. Eppes Richard A. Furman Charles Grim, Jr. William R. Gunby, Jr. Don A. Halperin, Ph.D., FAIC City, State Harold Holland Jack W. Martin Anthony Section Luther J. Strange Don F. Taylor G. Arian Toy J. Morris Trimmer, DBA

Howard I. Underberger oys A. Johnson, FAIC Emeritus

Thomas E. Martin, Emeritus

C. Dawson Zeigler, Jr. Emerirus

Apprenticeship Program Director Apprenticeship Program Address

Dear Program Director,

Approximately two weeks ago a copy of the enclosed questionnaire was mailed to you. As of this date, we have not received a response and ask that you please reconsider We desperately need providing the requested information. your valued input in order for our research to be valid and If you have already sent your useful to the industry. original questionnaire we thank you and appreciate your some reason you have not responded to the If for please take a few minutes to original questionnaire, complete the enclosed questionnaire and return it as soon as possible. If you have any questions concerning thes study or the questionnaire, please contact Ali Markus or Sheli Romer at 904-392-6755. Thank you.

Sincerely,

Brisbane H. Brown, Jr. Professor and Director

#### CARPENTRY APPRENTICESHIP TRAINING PROGRAMS IN FLORIDA

- 1. AGC CONSTRUCTION INDUSTRY OF FLORIDA MANPOWER TRAINING PROGRAM Mr. Michael O'Brien, Coordinator Manpower Training Program 6024 West Jarvis Street Tampa, Florida 33634 PHONE: 813-886-2113
- 2. ASSOCIATED CONTRACTORS, INC.
  Ms. Mavis B. Gibson, Secretary
  P.O. Box 839
  Marianna, Florida 32446
  PHONE: 904-526-2675
- 3. ASSOCIATIONS OF BUILDERS & CONTRACTORS INSTITUTE Mr. Dwight L.Foster, Executive Director 4700 N.W. 2nd Avenue, Suite 104 Boca Raton, Florida 33431 PHONE: 305-994-2640
- 4. BEESON ELECTRIC, INC.
  Mr. Gordon L. Beeson, President
  P.O. Drawer Z
  Titusville, Florida 32780
  PHONE: 305-267-8181
- 5. BROWARD COUNTY CARPENTERS
  Mr. Kenneth C. Maierhofer, Executive Director
  818 West Broward Blvd.
  Ft. Lauderdale, Florida 33312
  PHONE: 305-764-8450
- 6. CENTRAL FLORIDA CARPENTERS
  Mr. John Houlihan, Apprentice Coordinator
  333 East Oakridge Road
  Orlando, Florida 32809
  PHONE: 305-851-3882
- 7. CENTRAL FLA. CHAPTER ABC
  Mr. Alan Pearson, Night School Principal
  McCoy Training Annex
  8434 Avenue C
  Bldg. 126, 1st Floor, Room 113
  Orlando, Florida 32812
  PHONE: 305-851-8917

- 8. CITY OF MIAMI APPREN. COMM.
  Mr. James Thomas, Coordinator
  City of Miami
  Dept. of Vehicle Maintenance
  1390 N.W. 20th Street
  Miami, Florida 33142
  PHONE: 305-579-6745
- 9. CITY OF ORLANDO
  Mr. Alfred Dagon, Chairman
  400 South Orange Avenue
  Orlando, Florida 32801
  PHONE: 305-849-2645
- 10. COLLIER COUNTY BUILDING CONTRACTORS ASSOCIATION Mr. David A. Nesbitt, Director 3227 Horseshoe Drive, South Naples, Florida 33942 PHONE: 813-643-1088
- 11. FLORIDA EAST COAST CHAPTER AGC OF AMERICA INC.
  Mr. Arthur J. Cohen, Training Director
  2617 Australia Avenue
  West Palm Beach, Florida 33407
  PHONE: 305-833-3609
- 12. FLA. GULF COAST CHAPTER ABC, INC.
  Mr. Steve P. Cona, Jr., Educational Dir.
  P.O. Box 152107
  Tampa, Florida 33684
  PHONE: 813-879-8064
- 13. FLA. WEST COAST CARPENTERS
  Mr. Larry Jones, Chairman
  7930 U.S. 301 North
  Tampa, Florida 33610
  PHONE: 813-985-5555
- 14. G.L.B. CONSTRUCTION COMPANY, INC.
  Mr. Gordon L. Beeson, President
  1018 Orange Street
  Titusville, Florida 32780
- 15. MAINTENANCE DEPARTMENT SCHOOL BOARD
  OF BROWARD COUNTY
  Mr. Roger D. Childers, Secretary
  Mr. Scott V. Koehler, Chairman
  3810 Northwest 10th Avenue Oakland
  Fort Lauderdale, FL 33307
  PHONE: 305-928-0215

- 16. NAPLES CARPENTERS
  Mr. Carl L. Ahlbrandt, Secretary/Treasurer
  3427 Enterprise Avenue
  Naples, Florida 33940
  PHONE: 813-643-3833
- 17. NORTH FLORIDA CARPENTERS
  Mr. Louis E. Toth, Apprenticeship Director
  5800 Ricker Road
  Jacksonville, Florida 32210
  PHONE: 904-771-4141
- 18. NORTH FLORIDA CHAPTER ABC, INC.
  Ms. Marshlea A. Rudd, Secretary/Coordinator
  1230 North Adams Street
  Tallahassee, Florida 32303
  PHONE: 904-877-2419
- 19. NORTHEAST FLORIDA BUILDERS ASSOCIATION
  Ms. Laura L. Laseman, Training Director
  P.O. Box 17339
  Jacksonville, Florida 32245
  PHONE: 904-725-4355
- 20. NORTHEASTERN FLORIDA CONSTRUCTION INDUSTRY
  EDUCATION FOUNDATION
  Mr. William G. Carlson, Training Director
  2144 Rosselle Street
  P.O. Box 2519
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  PHONE: 904-356-9671
- 21. NORTHWEST FLORIDA CONSTRUCTION INDUSTRY AGC
  Ms. Diane Hickman, Coordinator
  201 South F Street
  Pensacola, Florida 32501
  PHONE: 904-438-0551
- 22. PALM BEACH COUNTY CARPENTERS
  Mr. Richard L. Borrack, Director
  1000 Oklawaha Street
  West Palm Beach, Florida 33409
  PHONE: 305-689-2257
- 23. PENSACOLA CARPENTERS
  Mr. Orville Crisco, Chairman
  7830 North Palafox
  Pensacola, Florida 32504
  PHONE: 904-477-2922

- 24. POLK COUNTY BUILDERS ASSOCIATION
  Ms. Mitzi G. Perry, Training Director
  2940 Winterlake Road
  Lakeland, Florida 33801
  PHONE: 813-665-0844
- 25. SOUTH FLORIDA CARPENTERS
  Mr. Wallace S. Bray, Director
  2671 Northwest 28th Street
  Miami, Florida 33142
  PHONE: 305-633-5268

# APPENDIX B

DETAILED TABLES OF STATISTICAL ANALYSIS

ANALYSIS BY REGION

APPENDIX B-1

CENTRAL REGION

# BACKGROUND INFORMATION FOR CENTRAL REGION APPRENTICESHIP PROGRAMS

### Table B-1.1 Background Information

	AVER	AGE	CENTRAL	REGION
BACKGROUND INFORMATION	CENTRAL REGION	STATE- WIDE	MUMINIM	MAXIMUM
Duration of program in years	3.8	3.8	3.0	4.0
Number of apprentices presently enrolled	15.4	35.2	0.0	60.0
Available capacity	66.7	81.3	5.0	150.0
Total hours of classroom instruction in the program	607	605	576	624
Total hours of job site training in the program	7,333	7,667	6,000	8,000
Number of apprentices who graduate each year from program	10.0	11.5	5.0	15.0
Average age of graduates	24.5	25.3	24.0	25.0

#### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-1.2 Average Hourly Wage for Each Year of Apprenticeship

	AVER	AGE	CENTRAL REGION			
APPRENTICE YEAR	CENTRAL REGION	STATE- WIDE	MINIMUM	MUMIXAM		
1st Year	\$6.26	\$5.98	\$5.77	\$6.87		
2nd Year	\$7.54	\$7.03	\$6.79	\$8.11		
3rd Year	\$8.47	\$7.99	\$7.39	\$9.36		
4th Year	\$9.22	\$8.99	\$7.95	\$10.49		

In your opinion, what should be the average hourly wage of the following?

Table B-1.3 Opinion of Wages

	AVER	AGE	CENTRAL REGION			
APPRENTICE YEAR	CENTRAL REGION	STATE- WIDE	MINIMUM	MUMIXAM		
1st Year	\$5.54	\$6.12	\$4.25	\$6.87		
2nd Year	\$6.53	\$7.11	\$4.75	\$8.50		
3rd Year	\$7.59	\$8.17	\$5.25	\$10.50		
4th Year	\$7.33	\$9.10	\$5.75	\$10.49		

Table B-1.4 Comparison of Averages of Actual Wages and Opinion of Wages

APPRENTICE YEAR	ACTUAL	WAGE	OPINION WAGE		
	CENTRAL REGION	STATE- WIDE	CENTRAL REGION	STATE- WIDE	
1st Year	\$6.26	\$5.98	\$5.54	\$6.12	
2nd Year	\$7.54	\$7.03	\$6.53	\$7.11	
3rd Year	\$8.47	\$7.99	\$7.59	\$8.17	
4th Year	\$9.22	\$8.99	\$7.33	\$9.10	

#### RECRUITMENT

Table B-1.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS	CENTRAL YES		REGION NO		STATEV YES		WIDE NO	
	#	98	#	g <sub>e</sub>	#	Q <sub>0</sub>	#	ક
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	4	80.0	1	20.0	14	56.0	11	44.0
Is apprenticeship recruiting adequate?	2	40.0	3	60.0	13	52.0	1.2	48.0
Are local contractors aware of the existence of your program to supply them with trained carpenters?	2	40.0	3	60.0	12	50.0	12	50.0
Do you think apprenticeship programs are being marketed to potential employers?	2	40.0	3	60.0	10	43.5	13	56.5

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed?

Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-1.6 Recruiting Strategies

	AVERAGE				
STRATEGY	CENTRAL REGION		STATEWIDE		
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS	
Development of slide or video tape presentations for distribution throughout the region.	2.20	1.33	1.63	1.68	
Advertising the program in local newspapers and journals.	2.00	2.67	2.17	2.05	
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.40	2.00	1.40	1.41	
Providing tours of the program for prosepective students.	1.40	. 1.33	1.63	1.70	
Utilizing advisory committee activities to recruit apprentices.	1.40	1.00	2.00	2.06	
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.40	1.00	1.67	1.61	
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.00	1.00	1.43	1.25	

### JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-1.7 Job Placement Factors

FACTORS		DEGREE OF INFLUENCE		
	CENTRAL REGION	STATE- WIDE		
The quality and adequacy of training provided to the students.	3.25	3.48		
Students had previous on-site experience.	2.75	3.05		
Existence of an advisory or craft committee for the program.	2.75	2.71		
Cooperation between instructor and placement officer.	2.50	2.48		
Relationship between program personnel and local contractors.	2.25	2.86		
Providing information on local employment opportunities.	2.00	2.33		
Counseling students on job opportunities and requirements.	2.00	2.48		
Help from students' friends and relatives to get job contacts.	1.75	2.30		

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-1.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from	CENTRAL REGION		STATEWIDE	
one apprenticeship job to another	AVG.	MEDIAN	AVG.	MEDIAN
apprenticeship job (in days)	25.8	10.0	25.8	10.0

### JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program? Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-1.9 Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS		DEGREE OF INFLUENCE	
	CENTRAL REGION	STATE- WIDE	
The quality and adequacy of training provided to the students.	3.33	3.53	
Relationship between program personnel and local contractors.	3.00	3.14	
Cooperation between instructor and placement officer.	3.00	2.79	
Counseling students on job opportunities and requirements.	3.00	2.65	
Actively contacting contractors and inviting them to visit the progam and interview the students.	3.00	2.23	
Providing information on local employment opportunities.	2.00	2.50	
Help from students' friends and relatives to get job contacts.	1.00	2.39	
Existence of an advisory or craft committee for the program.	1.00	2.07	

What percentage of the apprentices who completed your training programs have fulltime carpentry jobs?

Table B-1.10 Percentage of Graduates with Full-Time Carpentry Jobs

	AVERAGE		
Percentage who have Full-time	CENTRAL REGION	STATE- WIDE	
Carpentry Jobs	100.0	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-1.11 Average Hourly Wage Upon Graduation

	AVE	AVERAGE		
•	CENTRAL REGION	STATE- WIDE		
Hourly Wage	\$9.64	\$10.30		

### IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary
2 = desirable

1 = unnecessary

Table B-1.12 Importance of Skills

	AVER	<b>LAGE</b>	
SKILLS	CENTRAL REGION	STATE- WIDE	
Construct interior stairs.	4.00	3.29	
Read blueprints.	3.80	3.50	
Frame partitions.	3.80	3.46	
Frame floor and sills.	3.80		
Install drywall material.	3.80	3.08	
Construct forms (footing, walls, edge, curb).	3.60	3.46	
Construct forms (piers, columns, beam, slab,	3.60	3.46	
stairs, bridge, deck).	3.60	3.04	
Install cabinets, fixtures and shelving.	3.60	2.67	
Install insulation and sound control material.		3.48	
Install door, window frame and units.	3.40	3.38	
Install decking and sheathing.	3.40	3.33	
Install exterior wall covering and trim.	3.40		
Preplan future activities.	3.40	3.04	
Install structural timber.	3.20	3.13	
Frame roofs.	3.20	3.04	
Conduct site preparation and layouts.	3.00	3.21	
Apply weather stripping and caulking.	3.00	2.92	
Safety.	2.80	3.63	
Install paneling, furring, soffit ceiling.	2.80	3.04	
Build trusses.	1.80_	2.29	

## ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-1.13 Opinion of Shortage

	CENTRAL REGION		STATEWIDE		
RESPONSE	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	96 	
Yes	1	100.0	15	83.3	
No	0	0.0	3	16.7	

## SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry?
Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-1.14 Degree of Specialization in Carpentry

	AVERAGE		
Degree of	CENTRAL REGION	STATE- WIDE	
Specialization	4.00	3.59	

Will the future carpenter be performing a broader variety of tasks? 4 = Much broader Use the following rating system:

3 = Broader

2 = No change 1 = Narrower

Table B-1.15 Broadness of Performance of Carpentry Tasks

TYPE OF CARPENTER	AVERAGE		
TIPE OF CARPENTER	CENTRAL REGION	STATE- WIDE	
Finish Carpenters	2.00	2.60	
Form Carpenters	1.67	2.62	
Framing Carpenters	1.67	2.55	

#### CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Table B-1.16 Apprenticeship Programs' Opinion of Licensing Carpenters

	CENTRAL REGION		STATEWIDE	
RESPONSE	NUMBER OF RESPONSES	ક	NUMBER OF RESPONSES	q <sub>6</sub>
Yes	5	100.0	21	84.0
No	0	0.0	4	16.0

### COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-1.17 Apprentice/Industry Communication

	AVER	AVERAGE		
TYPES OF COMMUNICATIONS	CENTRAL REGION	STATE- WIDE		
Formal meeting of the two groups	2.60	3.22		
Attending industry functions	2.60	2.82		
Advisory committee	2.20	3.00		
Written contact	2.00	1.82		

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-1.18 Communication Levels

	AVERAGE		
INSTITUTIONS	CENTRAL REGION	STATE- WIDE	
Vocational training centers	2.80	3.38	
Construction industry (contractors)	2.60	3.09	
Open shop apprenticeship programs	2.40	2.96	
Community College Training	2.20	2.46	
Union apprenticeship programs	2.00	2.33	

APPENDIX B-2

NORTHEAST REGION

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

## Table B-2.1 Background Information

	AVE	RAGE	N.E. REGION	
BACKGROUND INFORMATION	N.E. REGION	STATE- WIDE	MINIMUM	MUMIXAM
Duration of program in years	3.8	3.8	3.5	4.0
Number of apprentices presently enrolled	38.7	35.2	16.0	75.0
Available capacity	80.5	81.3	60.0	101.0
Total hours of classroom instruction in the program	645	605	576	720
Total hours of job site training in the program	7,667	7,667	7,000	8,000
Number of apprentices who graduate each year from program	3.0	11.5	3.0	3.0
Average age of graduates	26.0	25.3	25.0	27.0

#### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-2.2 Average Hourly Wage for Each Year of Apprenticeship

	AVE	AVERAGE		REGION
APPRENTICE YEAR	N.E. REGION	STATE- WIDE	MINIMUM	MUMIXAM
1st Year	\$5.74	\$5.98	\$4.00	\$7.36
2nd Year	\$6.82	\$7.03	\$5.50	\$8.66
3rd Year	\$7.86	\$7.99	\$6.50	\$9.96
4th Year	\$9.05	\$8.99	\$7.50	\$11.27

In <u>your opinion</u>, what should be the average hourly wage of the following?

Table B-2.3 Opinion of Wages

	AVE	RAGE	N.E. I	REGION
APPRENTICE YEAR	N.E. REGION	STATE- WIDE	MINIMUM	MUMIXAM
1st Year	\$6.08	\$6.12	\$5.00	\$7.36
2nd Year	\$6.98	\$7.11	\$6.00	\$8.66
3rd Year	\$8.03	\$8.17	\$7.00	\$9.96
4th Year	\$9.22	\$9.10	\$8.00	\$11.27

Table B-2.4 Comparison of Averages of Actual Wages and Opinion of Wages

APPRENTICE YEAR	ACTUA	L WAGE	OPINION WAGE		
	N.E. REGION	STATE- WIDE	N.E. REGION	STATE- WIDE	
1st Year	\$5.74	\$5.98	\$6.08	\$6.12	
2nd Year	\$6.82	\$7.03	\$6.98	\$7.11	
3rd Year	\$7.86	\$7.99	\$8.03	\$8.17	
4th Year	\$9.05	\$8.99	\$9.22	\$9.10	

#### RECRUITMENT

## Table B-2.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS		N.E. YES	REGI	REGION NO		STATEW YES		40
	#	98	#	96	#_	96	#	8
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	2	66.7	1	33.3	14	56.0	11	44.0
Is apprenticeship recruiting adequate?	2	66.7	1	33.3	13	52.0	12	48.0
Are local contractors aware of the existence of your program to supply them with trained carpenters?	2	66.7	1	33.3	12	50.0	12	50.0
Do you think apprenticeship programs are being marketed to potential employers?	1	33.3	2	66.7	10	43.5	13	56.5

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed?

Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-2.6 Recruiting Strategies

	·	AVERA	GE	
STRATEGY	N.E	REGION	STATE	VIDE
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS
Utilizing advisory committee activities to recruit apprentices.	2.67	3.00	2.00	2.06
Advertising the program in local newspapers and journals.	2.67	2.00	2.17	2.05
Development of slide or video tape presentations for distribution throughout the region.	2.33	1.67	1.63	1.68
Utilization of local radio and T.V. stations to place public service announcements about the training program.	2.00	1.33	1.40	1.41
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.67	1.67	1.43	1.25
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.67	1.67	1.67	1.61
Providing tours of the program for prosepective students.	1.00	1.00	1.63	1.70

## JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-2.7 Job Placement Factors

FACTORS		DEGREE OF INFLUENCE		
	N.E. REGION	STATE- WIDE		
The quality and adequacy of training provided to the students.	3.33	3.48		
Students had previous on-site experience.	3.33	3.05		
Existence of an advisory or craft committee for the program.	3.33	2.71		
Relationship between program personnel and local contractors.	3.00	2.86		
Counseling students on job opportunities and requirements.	3.00	2.48		
Providing information on local employment opportunities.	2.67	2.33		
Cooperation between instructor and placement officer.	2.00	2.48		
Help from students' friends and relatives to get job contacts.	2.00	2.30		

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-2.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from	N. REG		STAT	EWIDE
one apprenticeship job to another	AVG.	MEDIAN	AVG.	MEDIAN
apprenticeship job (in days)	5.3	5.0	25.8	10.0

## JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program?

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-2.9 Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS		DEGREE OF INFLUENCE		
	N.E. REGION	STATE- WIDE		
The quality and adequacy of training provided to the students.	3.67	3.53		
Cooperation between instructor and placement officer.	3.67	2.79		
Counseling students on job opportunities and requirements.	3.33	2.65		
Help from students' friends and relatives to get job contacts.	3.33	2.39		
Relationship between program personnel and local contractors.	3.00	3.14		
Providing information on local employment opportunities.	2.67	2.50		
Existence of an advisory or craft committee for the program.	2.67	2.07		
Actively contacting contractors and inviting them to visit the progam and interview the students.	2.33	2.23		

What percentage of the apprenticees who completed your training programs have fulltime carpentry jobs?

Table B-2.10 Percentage of Graduates with Full-Time Carpentry Jobs

	AVE	RAGE
Percentage who have Full-time	N.E. REGION	STATE- WIDE
Carpentry Jobs	83.3	89.4

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-2.11 Average Hourly Wage Upon Graduation

	AVERAGE				
	N.E. REGION	STATE- WIDE			
Hourly Wage	\$9.94	\$10.30			

#### IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary

2 = desirable

1 = unnecessary

Table B-2.12 Importance of Skills

	AVE	RAGE
SKILLS	REGION	STATE- WIDE
Safety.	4.00	3.63
Read blueprints.	3.33	3.58
Construct forms (footing, walls, edge, curb).	3.33	3.46
Construct forms (piers, columns, beam, slab, stairs, bridge, deck).	3.33	3.46
Install drywall material.	3.33	3.08
Frame partitions.	3.00	3.50
Install door, window frame and units.	3.00	3.48
Frame floor and sills.	3.00	3.46
Install decking and sheathing.	3.00	3.38
Construct interior stairs.	3.00	3.29
Conduct site preparation and layouts.	3.00	3.21
Install structural timber.	3.00	3.13
Install cabinets, fixtures and shelving.	3.00	3.04
Install paneling, furring, soffit ceiling.	3.00	3.04
Install exterior wall covering and trim.	2.67	3.33
Preplan future activities.	2.67	3.04
Install insulation and sound control material.	2.67	2.67
Frame roofs.	2.33	3.04
Apply weather stripping and caulking.	2.33	2.92
Build trusses.	2.33	2.29

## ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-2.13 Opinion of Shortage

	N.E. REGION  NUMBER OF % RESPONSES		STATEW	IDE
RESPONSE			NUMBER OF RESPONSES	8
Yes	2	100.0	15	83.3
No	0	0.0	3	16.7

## SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry? Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-2.14 Degree of Specialization in Carpentry

	AVERAGE			
Degree of	N.E. REGION	STATE- WIDE		
Specialization	4.00	3.59		

Will the future carpenter be performing a broader variety of tasks? 4 = Much broader Use the following rating system:

3 = Broader

2 = No change

1 = Narrower

Table B-2.15 Broadness of Performance of Carpentry Tasks

TYPE OF CARPENTER	AVERAGE			
	N.E. REGION	STATE- WIDE		
Form Carpenters	2.00	2.62		
Finish Carpenters	1.67	2.60		
Framing Carpenters	1.67	2.55		

#### CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Apprenticeship Programs' Opinion of Licensing Table B-2.16 Carpenters

RESPONSE	N.E. REGION		STATEWIDE		
	NUMBER OF RESPONSES	95	NUMBER OF RESPONSES	ą.	
Yes	2	66.7	21	84.0	
No	1	33.3	. 4	16.0	

## COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-2.17 Apprentice/Industry Communication

	AVERAGE			
TYPES OF COMMUNICATIONS	N.E. REGION	STATE- WIDE		
Formal meeting of the two groups	3.67	3.22		
Advisory committee	3.67	3.00		
Attending industry functions	3.00	2.82		
Written contact	1.00	1.82		

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close2 = remote

1 = very remote

Table B-2.18 Communication Levels

	AVERAGE			
INSTITUTIONS	N.E. REGION	STATE- WIDE		
Construction industry (contractors)	3.67	3.09		
Vocational training centers	3.00	3.38		
Community College Training	3.33	2.46		
Open shop apprenticeship programs	3.00	2.96		
Union apprenticeship programs	200	2.33		

## APPENDIX B-3

NORTHWEST REGION

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

Table B-3.1 Background Information

	AVERAGE		N.W. REGION	
BACKGROUND INFORMATION	n.w. REGION	STATE- WIDE	MUMINIM	MAXIMUM
Duration of program in years	4.0	3.8	4.0	4.0
Number of apprentices presently enrolled	18.8	35.2	0.0	59.0
Available capacity	42.7	81.3	10	101
Total hours of classroom instruction in the program	- 604	605	576	640
Total hours of job site training in the program	8,000	7,667	8,000	8,000
Number of apprentices who graduate each year from program	1.3	11.5	0.0	2.5
Average age of graduates	27.0	25.3	27.0	27.0

#### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-3.2 Average Hourly Wage for Each Year of Apprenticeship

	AVERAGE		N.W. REGION			
APPRENTICE YEAR	N.W. REGION	STATE- WIDE	MINIMUM	MAXIMUM		
1st Year	\$4.99	\$5.98	\$4.15	\$6.08		
2nd Year	\$6.03	\$7.03	\$4.90	\$7.30		
3rd Year	\$7.08	\$7.99	\$5.70	\$8.51		
4th Year	\$8.13	\$8.99	\$6.50	\$9.73		

In your opinion, what should be the average hourly wage of the following?

Table B-3.3 Opinion of Wages

AVERAGE		N.W. REGION			
N.W. REGION	1 1		MUMIXAM		
\$5.19	\$6.12	\$4.50	\$6.08		
\$6.25	\$7.11	\$5.25	\$7.30		
\$7.47	\$8.17	\$6.50	\$8.51		
\$9.04	\$9.10	\$8.60	\$9.73		
	N.W. REGION \$5.19 \$6.25 \$7.47	N.W. STATE-WIDE  \$5.19 \$6.12  \$6.25 \$7.11  \$7.47 \$8.17	N.W. STATE- MINIMUM \$5.19 \$6.12 \$4.50 \$6.25 \$7.11 \$5.25 \$7.47 \$8.17 \$6.50		

Table B-3.4 Comparison of Averages of Actual Wages and Opinion of Wages

	ACTUAL WAGE		OPINION WAGE		
APPRENTICE YEAR	N.W. REGION	STATE- WIDE	N.W. REGION	STATE- WIDE	
1st Year	\$4.99	\$5.98	\$5.19	\$6.12	
2nd Year	\$6.03	\$7.03	\$6.25	\$7.11	
3rd Year	\$7.08	\$7.99	\$7.47	\$8.17	
4th Year	\$8.13	\$8.99	\$9.04	\$9.10	

#### RECRUITMENT

Table B-3.5 Adequacy of Recruting

"#" - indicates number of responses

QUESTIONS		N.W. REGION YES NO			STATEW YES		NO	
•	#	8	#	98	#	ογο	#	8
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	0	0.0	4	100.0	14	56.0	11	44.0
Is apprenticeship recruiting adequate?	1	25.0	3	75.0	13	52.0	12	48.0
Are local contractors aware of the existence of your program to supply them with trained carpenters?	0	0.0	3	100.0	12	50.0	12	50.0
Do you think apprenticeship programs are being marketed to potential employers?	2	66.7	1	33.3	10	43.5	13	56.5

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed? Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-3.6 Recruiting Strategies

	AVERAGE					
STRATEGY	N.W.	REGION	STATEWIDE			
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS		
Providing tours of the program for prosepective students.	2.33	2.33	1.63	1.70		
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.67	1.67	1.67	1.61		
Utilizing advisory committee activities to recruit apprentices.	1.50	1.50	2.00	2.06		
Advertising the program in local newspapers and journals.	1.00	1.00	2.17	2.05		
Development of slide or video tape presentations for distribution throughout the region.	1.00	1.00	1.63	1.68		
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.00	1.00	1.43	1.25		
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.00	1.00	1.40	1.43		

#### JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-3.7 Job Placement Factors

FACTORS	DEGREE OF INFLUENCE		
	N.W. REGION	STATE- WIDE	
The quality and adequacy of training provided to the students.	3.50	3.48	
Relationship between program personnel and local contractors.	3.33	2.86	
Students had previous on-site experience.	2.50	3.05	
Existence of an advisory or craft committee for the program.	2.50	2.71	
Cooperation between instructor and placement officer.	2.00	2.48	
Counseling students on job opportunities and requirements.	2.00	2.48	
Providing information on local employment opportunities.	2.00	2.33	
Help from students' friends and relatives to get job contacts.	1.50	2.30	

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-3.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from	N.W. REGION		STAT	EWIDE
one apprenticeship job to another	AVG.	MEDIAN	AVG.	MEDIAN
apprenticeship job (in days)	22.5	22.5	25.8	10.0

## JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program?

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-3.9 Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS		DEGREE OF INFLUENCE	
	N.W. REGION	STATE- WIDE	
The quality and adequacy of training provided to the students.	4.00	3.53	
Relationship between program personnel and local contractors.	3.00	3.14	
Cooperation between instructor and placement officer.	1.00	2.79	
Counseling students on job opportunities and requirements.	1.00	2.65	
Actively contacting contractors and inviting them to visit the progam and interview the students.	1.00	2.23	
Providing information on local employment opportunities.	1.00	2.50	
Help from students' friends and relatives to get job contacts.	1.00	2.39	
Existence of an advisory or craft committee for the program.	1.00	2.07	

What percentage of the apprenticees who completed your training programs have fulltime carpentry jobs?

Table B-3.10 Percentage of Graduates with Full-Time Carpentry Jobs

_	AVERAGE		
Percentage who have Full-time	N.W. REGION	STATE- WIDE	
Carpentry Jobs	100.0	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-3.11 Average Hourly Wage Upon Graduation

	AVERAGE		
	N.W. REGION	STATE- WIDE	
Hourly Wage	\$9.72	\$10.30	

#### IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary

2 = desirable
1 = unnecessary

Table B-3.12 Importance of Skills

SKILLS	AVERAGE		
SKILLS	N.W. REGION	STATE- WIDE	
Safety.	4.00	3.63	
Read blueprints.	3.67	3.58	
Construct forms (footing, walls, edge, curb).	3.67	3.46	
Construct forms (piers, columns, beam, slab, stairs, bridge, deck).	3.67	3.46	
Preplan future activities.	3.67	3.04	
Install door, window frame and units.	3.33	3.48	
Install decking and sheathing.	3.33	3.38	
Construct interior stairs.	3.33	3.29	
Conduct site preparation and layouts.	3.33	3.21	
Install structural timber.	3.33	3.13	
Install cabinets, fixtures and shelving.	3.33	3.04	
Install paneling, furring, soffit ceiling.	3.00	3.04	
Frame roofs.	3.00	3.04	
Frame partitions.	2.67	3.50	
Frame floor and sills.	2.67	3.46	
Install exterior wall covering and trim.	2.67	3.33	
Apply weather stripping and caulking.	2.67	2.92	
Install drywall material.	2.33	3.08	
Build trusses.	2.33	2.29	
Install insulation and sound control material.	2.00	2.67	

## ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-3.13 Opinion of Shortage

	N.W. REGION		STATEWIDE	
RESPONSE	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	8
Yes	3	100.0	15	83.3
No	0	0.0	3	16.7

## SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry? Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-3.14 Degree of Specialization in Carpentry

	AVERAGE		
Degree of	N.W. REGION	STATE- WIDE	
Specialization	3.00	3.59	

Will the future carpenter be performing a broader variety of tasks? Use the following rating system:

4 = Much broader

3 = Broader

2 = No change

1 = Narrower

Table B-3.15 Broadness of Performance of Carpentry Tasks

TYPE OF CARPENTER	AVERAGE		
TIPE OF CARPENIER	N.W. REGION	STATE- WIDE	
Form Carpenters	2.50	2.62	
Finish Carpenters	2.50	2.60	
Framing Carpenters	2.50	2.55	

### CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Apprenticeship Programs' Opinion of Licensing Table B-3.16 Carpenters

RESPONSE	N.W. REGION		STATEWIDE		
	NUMBER OF RESPONSES	g 8	NUMBER OF RESPONSES	g	
Yes	2	50.0	21	84.0	
No	2	50.0	4	16.0	

## COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-3.17 Apprentice/Industry Communication

	AVERAGE		
TYPES OF COMMUNICATIONS	N.W. STATE WIDE 3.67 3.22 3.50 3.00	STATE- WIDE	
Formal meeting of the two groups	3.67	3.22	
Advisory committee	3.50	3.00	
Attending industry functions	3.00	2.82	
Written contact	1.50	1.82	

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-3.18 Communication Levels

	AVERAGE		
INSTITUTIONS	N.W. REGION	STATE- WIDE	
Construction industry (contractors)	3.33	3.09	
Vocational training centers	3.00	3.38	
Open shop apprenticeship programs	2.33	2.96	
Community College Training	1.67	2.46	
Union apprenticeship programs	1.67	2.33	

## APPENDIX B-4

SOUTHEAST REGION

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

## Table B-4.1 Background Information

BACKGROUND INFORMATION	AVE	AVERAGE		S.E. REGION	
BACKGROUND INFORMATION	S.E. REGION	STATE- WIDE	MINIMUM	MAXIMUM	
Duration of program in years	3.8	3.8	3.0	4.0	
Number of apprentices presently enrolled	59.4	35.2	5.0	160.0	
Available capacity	118.2	81.3	6.0	201.0	
Total hours of classroom instruction in the program	575	605	300	600	
Total hours of job site training in the program	7,667	7,667	6,000	8,000	
Number of apprentices who graduate each year from program	18.7	11.5	6.0	30.0	
Average age of graduates	24.8	25.3	21.0	28.0	

### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-4.2 Average Hourly Wage for Each Year of Apprenticeship

APPRENTICE YEAR	AVERAGE		S.E. REGION	
	S.E. REGION	STATE- WIDE	MINIMUM	MAXIMUM
1st Year	\$7.34	\$5.98	\$5.50	\$9.15
2nd Year	\$8.36	\$7.03	\$6.50	\$9.68
3rd Year	\$9.44	\$7.99	\$7.50	\$10.29
4th Year	\$10.49	\$8.99	\$8.50	\$11.40

In <u>your opinion</u>, what should be the average hourly wage of the following?

Table B-4.3 Opinion of Wages

APPRENTICE YEAR	AVERAGE		S.E. REGION	
	S.E. REGION	STATE- WIDE	MUMINIM	MUMIXAM
1st Year	\$7.78	\$6.12	\$5.50	\$9.33
2nd Year	\$8.84	\$7.11	\$6.50	\$10.80
3rd Year	\$9.92	\$8.17	\$7.50	\$12.29
4th Year	\$10.99	\$9.10	\$8.50	\$13.78

Table B-4.4 Comparison of Averages of Actual Wages and Opinion of Wages

APPRENTICE YEAR	ACTUA	L WAGE	OPINION WAGE		
APPRENTICE TEAR	S.E. REGION	STATE- WIDE	S.E. REGION	STATE- WIDE	
1st Year	\$7.34	\$5.98	\$7.77	\$6.12	
2nd Year	\$8.36	\$7.03	\$8.84	\$7.11	
3rd Year	\$9.44	\$7.99	\$9.92	\$8.17	
4th Year	\$10.49	\$8.99	\$10.99	\$9.10	

#### RECRUITMENT

Table B-4.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS		YES		REGION NO		STATES YES		WIDE NO	
	#	ક	#	96	#	8	#	%	
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	5	71.4	2	28.6	14	56.0	11	44.0	
Is apprenticeship recruiting adequate?	5	71.4	2	28.6	13	52.0	12	48.0	
Are local contractors aware of the existence of your program to supply them with trained carpenters?	6	85.7	1	14.3	12	50.0	12	50.0	
Do you think apprenticeship programs are being marketed to potential employers?	4	66.7	2	33.3	10	43.5	13	56.5	

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed? Use the following rating system:

4 = extremely utilized, extremely successful 3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-4.6 Recruiting Strategies

		AVERA	AGE	
STRATEGY	S.E. REGION		STATEWIDE	
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS
Development of slide or video tape presentations for distribution throughout the region.	2.43	1.60	1.63	1.68
Utilizing advisory committee activities to recruit apprentices.	2.29	2.33	2.00	2.06
Advertising the program in local newspapers and journals.	2.29	1.83	2.17	2.05
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.71	1.40	1.67	1.61
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.60	1.00	1.43	1.25
Providing tours of the program for prosepective students.	1.43	1.50	1.63	1.70
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.14	1.20	1.40	1.41

#### JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-4.7 Job Placement Factors

FACTORS		DEGREE OF INFLUENCE		
	S.E. REGION	STATE- WIDE		
The quality and adequacy of training provided to the students.	3.43	3.48		
Students had previous on-site experience.	3.00	3.05		
Help from students' friends and relatives to get job contacts.	2.86	2.30		
Relationship between program personnel and local contractors.	2.43	2.86		
Cooperation between instructor and placement officer.	2.43	2.48		
Counseling students on job opportunities and requirements.	2.43	2.48		
Existence of an advisory or craft committee for the program.	2.14	2.71		
Providing information on local employment opportunities.	2.14	2.33		

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-4.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from	S. REG	E. ION	STATEWIDE	
one apprenticeship job to another	AVG.	MEDIAN	AVG.	MEDIAN
apprenticeship job (in days)	3.1	3.0	25.8	10.0

# JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program?

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

<u>Table B-4.9</u> Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS		DEGREE OF INFLUENCE		
	S.E. REGION	STATE- WIDE		
The quality and adequacy of training provided to the students.	3.33	3.53		
Relationship between program personnel and local contractors.	2.80	3.14		
Cooperation between instructor and placement officer.	2.60	2.79		
Providing information on local employment opportunities.	2.60	2.50		
Help from students' friends and relatives to get job contacts.	2.50	2.39		
Counseling students on job opportunities and requirements.	2.33	2.65		
Existence of an advisory or craft committee for the program.	1.60	2.07		
Actively contacting contractors and inviting them to visit the progam and interview the students.	1.50	2.23		

What percentage of the apprentices who completed your training programs have fulltime carpentry jobs?

Table B-4.10 Percentage of Graduates with Full-Time Carpentry Jobs

	AVERAGE		
Percentage who have Full-time	S.E. REGION	STATE- WIDE	
Carpentry Jobs	86.5	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-4.11 Average Hourly Wage Upon Graduation

	AVERAGE		
	S.E. REGION	STATE- WIDE	
Hourly Wage	\$12.01	\$10.30	

## IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job. Use the following rating system:

4 = absolutely necessary

3 = necessary 2 = desirable 1 = unnecessary

Table B-4.12 Importance of Skills

SKILLS	AVERAGE		
Cofe	REGION	STATE- WIDE	
Safety.	3.71	3.63	
Read blueprints.	3.57	3.58	
Frame partitions.	3.57	3.50	
Frame floor and sills.	3.57	3.46	
Conduct site preparation and layouts.	3.57	3.21	
Install door, window frame and units	3.43	3.48	
Install exterior wall covering and trim.	3.43	3.33	
Install decking and sheathing.	3.29	3.38	
Preplan future activities.	3.29	3.04	
Frame roofs.	3.29	3.04	
Construct forms (footing, walls, edge, curb).	3.14	3.46	
construct forms (piers, columns, beam, slab, stairs, bridge, deck).	3.14	3.46	
Install structural timber.	3.14	3.13	
Install paneling, furring, soffit ceiling.	3.14	3.04	
Construct interior stairs.	3.00	3.29	
Install drywall material.	2.86	3.08	
Install cabinets, fixtures and shelving.	2.86	3.04	
Apply weather stripping and caulking	2.86	2.92	
Install insulation and sound control material	2.57	2.67	
Build trusses.	2.57	$\frac{2.07}{2.29}$	

# ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-4.13 Opinion of Shortage

RESPONSE	S.E. REGION		STATE	WIDE
	NUMBER OF RESPONSES	g.	NUMBER OF RESPONSES	g <sub>g</sub>
Yes	4	57.1	15	83.3
No	3	42.9	3	16.7

# SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-4.14 Degree of Specialization in Carpentry

	·			
Degree	AVERAGE			
of	S.E. REGION	STATE- WIDE		
Specialization	3.67	3.59		

Will the future carpenter be performing a broader variety of tasks? Use the following rating system:

3 = Broader

2 = No change

1 = Narrower

Table B-4.15 Broadness of Performance of Carpentry Tasks

	AVERAGE		
TYPE OF CARPENTER	S.E. REGION	STATE- WIDE	
Cornenters	2.83	2.62	
Form Carpenters Framing Carpenters	2.83	2.55	
Finish Carpenters	2.67	2.60	

## CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Table B-4.16 Apprenticeship Programs' Opinion of Licensing Carpenters

	F			
RESPONSE	S.E. RE	STATEWIDE		
RDD2 OF C	NUMBER OF RESPONSES	9g	NUMBER OF RESPONSES	Oto .
	7	100.0	21	84.0
Yes ————	-	0.0	4	16.0
Мо				

## COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Apprentice/Industry Communication Table B-4.17

	AVERAGE			
TYPES OF COMMUNICATIONS	S.E. REGION	STATE- WIDE		
Formal meeting of the two groups	3.50	3.22		
Advisory committee	3.00	3.00		
Attending industry functions	2.50	2.82		
Written contact	2.00	1.82		

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-4.18 Communication Levels

	AVERAGE			
INSTITUTIONS	S.E. REGION	STATE- WIDE		
Vocational training centers	3.86	3.38		
Open shop apprenticeship programs	3.80	2.96		
Union apprenticeship programs	3.00	2.33		
Community College Training	3.00	2.46		
Construction industry (contractors)	2.71	3.09		

## APPENDIX B-5

SOUTHWEST REGION

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

Table B-5.1 Background Information

BACKGROUND INFORMATION	AVE	RAGE	S.W. R	S.W. REGION		
DACKGROUND INFORMATION	S.W. REGION	STATE- WIDE	MINIMUM	MAXIMUM		
Duration of program in years	3.8	3.8	3.0	4.0		
Number of apprentices presently enrolled	32.5	35.2	7.0	60.0		
Available capacity	69.4	81.3	40.0	101.0		
Total hours of classroom instruction in the program	620	605	576	842		
Total hours of job site training in the program	7,667	7,667	6,000	8,000		
Number of apprentices who graduate each year from program	15.4	11.5	2.0	50.0		
Average age of graduates	25.3	25.3	23.0	30.0		

#### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-5.2 Average Hourly Wage for Each Year of Apprenticeship

	AVE	RAGE	S.W. RI	S.W. REGION		
APPRENTICE YEAR	S.W. STATE- REGION WIDE		MINIMUM	MUMIXAM		
1st Year	\$5.19	\$5.98	\$4.50	\$5.96		
2nd Year	\$6.11	\$7.03	\$5.75	\$6.55		
3rd Year	\$6.89	\$7.99	\$6.25	\$7.48		
4th Year	\$7.86	\$8.99	\$7.25	\$8.50		

In your opinion, what should be the average hourly wage of the following?

Table B-5.3 Opinion of Wages

	AVERAGE		s.w. I	S.W. REGION		
APPRENTICE YEAR	S.W. REGION	STATE- WIDE	MINIMUM	MUMIXAM		
1st Year	\$5.77	\$6.12	\$5.50	\$6.00		
2nd Year	\$6.70	\$7.11	\$6.25	\$7.50		
3rd Year	\$7.63	\$8.17	\$7.00	\$9.00		
4th Year	\$8.50	\$9.10	\$7.58	\$10.00		

Table B-5.4 Comparison of Averages of Actual Wages and Opinion of Wages

APPRENTICE YEAR	ACTUAL WAGE		OPINIO	N WAGE
THE TEACH	S.W. REGION	STATE- WIDE	S.W. REGION	STATE- WIDE
1st Year	\$5.19	\$5.98	\$5.77	\$6.12
2nd Year	\$6.11	\$7.03	\$6.70	\$7.11
3rd Year	\$6.88	\$7.99	\$7.63	\$8.17
4th Year	\$7.86	\$8.99	\$8.50	\$9.10

## RECRUITMENT

Table B-5.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS	S.W. REGION YES NO				,	STATE YES	WIDE NO	
· .	#	8	#	8	#	og	#	8
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	3	50.0	3	50.0	14	56.0	11	44.0
Is apprenticeship recruiting adequate?	3	50.0	3	50.0	13	52.0	12	48.0
Are local contractors aware of the existence of your program to supply them with trained carpenters?	2	33.3	4	67.7	12	50.0	12	50.0
Do you think apprenticeship programs are being marketed to potential employers?	1	16.7	5	83.3	10	43.5	13	56.5

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed? Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-5.6 Recruiting Strategies

		AVERA	GE_		
STRATEGY	s.W	. REGION	STATEWIDE		
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS	
Advertising the program in local newspapers and journals.	2.50	2.33	2.17	2.05	
Development of slide or video tape presentations for distribution throughout the region.	2.33	2.17	1.63	1.68	
Utilizing advisory committee activities to recruit apprentices.	2.20	2.25	2.00	2.06	
Providing tours of the program for prosepective students.	2.00	2.20	1.63	1.70	
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.83	2.20	1.67	1.61	
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.67	1.60	1.40	1.41	
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.67	1.40	1.43	1.25	

## JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-5.7 Job Placement Factors

FACTORS	DEGREE OF INFLUENCE		
	S.W. REGION	STATE- WIDE	
The quality and adequacy of training provided to the students.	3.80	3.48	
Relationship between program personnel and local contractors.	3.60	2.86	
Students had previous on-site experience.	3.40	3.05	
Existence of an advisory or craft committee for the program.	3.20	2.71	
Cooperation between instructor and placement officer.	3.00	2.48	
Counseling students on job opportunities and requirements.	2.80	2.48	
Providing information on local employment opportunities.	2.80	2.33	
Help from students' friends and relatives to get job contacts.	2.40	2.30	

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-5.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from one apprenticeship job to another apprenticeship job (in days)	S. REG	W. HON	STATEWIDE		
	AVG.	MEDIAN	AVG.	MEDIAN	
	8.6	6.5	25.8	10.0	

# JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program?

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-5.9 Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS	DEGREE OF INFLUENCE		
	S.W. REGION	STATE- WIDE	
The quality and adequacy of training provided to the students.	3.75	3.53	
Relationship between program personnel and local contractors.	3.75	3.14	
Actively contacting contractors and inviting them to visit the progam and interview the students.	3.00	2.23	
Cooperation between instructor and placement officer.	2.75	2.79	
Counseling students on job opportunities and requirements.	2.75	2.65	
Existence of an advisory or craft committee for the program.	2.75	2.07	
Providing information on local employment opportunities.	2.75	2.50	
Help from students' friends and relatives to get job contacts.	2.25	2.39	

What percentage of the apprentices who completed your training programs have fulltime carpentry jobs?

Table B-5.10 Percentage of Graduates with Full-Time Carpentry Jobs

	AVERAGE		
Percentage who have Full-time	S.W. REGION	STATE- WIDE	
Carpentry Jobs	90.0	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-5.11 Average Hourly Wage Upon Graduation

	AVERAGE		
	S.W. REGION	STATE- WIDE	
Hourly Wage	\$9.32	\$10.30	

#### IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job. Use the following rating system:

4 = absolutely necessary

3 = necessary 2 = desirable

1 = unnecessary

Table B-5.12 Importance of Skills

SKILLS		AVERAGE	
SKILLS	S.W. REGION	STATE- WIDE	
Safety.	3.83	3.63	
Frame partitions.	3.83	3.50	
Install door, window frame and units.	3.83	3.48	
Install exterior wall covering and trim.	3.83	3.33	
Construct forms (footing, walls, edge, curb).	3.67	3.46	
Construct forms (piers, columns, beam, slab,	3.67	3.46	
stairs, bridge, deck).		į	
Frame floor and sills.	3.67	3.46	
Install decking and sheathing.	3.67	3.38	
Read blueprints. •	3.50	3.58	
Apply weather stripping and caulking.	3.33	2.92	
Construct interior stairs.	3.17	3.29	
Install paneling, furring, soffit ceiling.	3.17	3.04	
Conduct site preparation and layouts.	3.00	3.21	
Install structural timber.	3.00	3.13	
Install drywall material.	3.00	3.08	
Frame roofs.	3.00	3.04	
Install cabinets, fixtures and shelving.	2.67	3.04	
Preplan future activities.	2.33	3.04	
Install insulation and sound control material.	2.33	2.67	
Build trusses.	2.33	2.29	

## ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-5.13 Opinion of Shortage

	S.W. REGION		STATEWIDE	
RESPONSE	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	*
Yes	5	100.0	15	83.3
No	0	0.0	3	16.7

## SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry? Use the following rating system:

4 = Large degree

3 = Necessary 2 = Desirable

1 = No degree

Table B-5.14 Degree of Specialization in Carpentry

	AVERAGE		
Degree of	S.W. REGION	STATE- WIDE	
Specialization	3.83	3.59	

Will the future carpenter be performing a broader variety of tasks? Use the following rating system:

4 = Much broader

3 = Broader

2 = No change

1 = Narrower

Table B-5.15 Broadness of Performance of Carpentry Tasks

TYPE OF CARPENTER	AVERAGE		
	S.W. REGION	STATE- WIDE	
Finish Carpenters	2.80	2.60	
Framing Carpenters	2.40	2.55	
Form Carpenters	2.17	2.62	

#### CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Table B-5.16 Apprenticeship Programs' Opinion of Licensing Carpenters

RESPONSE	S.W. REGION		STATEWIDE	
	NUMBER OF RESPONSES	48	NUMBER OF RESPONSES	95
Yes	5	83.3	21	84.0
No	0	0.0	4	16.0

ANALYSIS BY ASSOCIATION

## APPENDIX B-6

# <u>A S S O C I A T E D B U I L D E R S</u> <u>E C O N T R A C T O R S</u>

#### COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-5.17 Apprentice/Industry Communication

TYPES OF COMMUNICATIONS	AVE	AVERAGE		
	S.W. REGION	STATE- WIDE		
Formal meeting of the two groups	3.00	3.22		
Advisory committee	3.17	3.00		
Attending industry functions	3.17	2.82		
Written contact	2.00	1.82		

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-5.18 Communication Levels

INSTITUTIONS	AVERAGE		
	S.W. REGION	STATE- WIDE	
Vocational training centers	3.67	3.38	
Construction industry (contractors)	3.67	3.09	
Open shop apprenticeship programs	3.33	2.96	
Union apprenticeship programs	2.17	2.33	
Community College Training	1.83	2.46	

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

# Table B-6.1 Background Information

	AVER	AGE	ABC	
BACKGROUND INFORMATION	ABC	STATE- WIDE	MINIMUM	MAXIMUM
Ouration of program in years	3.7	3.8	3.0	4.0
Number of apprentices presently enrolled	15.3	35.2	6.0	28.0
Available capacity	54.3	81.3	17.0	101.0
Total hours of classroom instruction in the program	598	605	576	621
Total hours of job site training in the program	7,333	7,667	6,000	8,000
Number of apprentices who graduate each year from program	18.3	11.5	0.0	50.0
Average age of graduates	25.0	25.3	23.0	27.0

#### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-6.2 Average Hourly Wage for Each Year of Apprenticeship

APPRENTICE YEAR	AVERAGE		ABC	
	ABC	STATE- WIDE	MINIMUM	MAXIMUM
1st Year	\$5.13	\$5.98	\$4.75	\$5.77
2nd Year	\$6.46	\$7.03	\$5.77	\$7.73
3rd Year	\$7.45	\$7.99	\$6.65	\$8.66
4th Year	\$7.85	\$8.99	\$7.54	\$8.17

In <u>your opinion</u>, what should be the average hourly wage of the following?

Table B-6.3 Opinion of Wages

APPRENTICE YEAR	AVERAGE		ABC	
	ABC	STATE- WIDE	MINIMUM	MAXIMUM
1st Year	\$5.89	\$6.12	\$5.00	\$6.77
2nd Year	\$7.35	\$7.11	\$6.20	\$8.50
3rd Year	\$8.95	\$8.17	\$7.40	\$10.50
4th Year	\$8.60	\$9.10	\$8.60	\$8.60

Table B-6.4 Comparison of Averages of Actual Wages and Opinion of Wages

	ACTUAL WAGE		OPINION WAGE		
APPRENTICE YEAR	ABC	STATE- WIDE	ABC	STATE- WIDE	
1st Year	\$5.13	\$5.98	\$5.89	\$6.12	
2nd Year	\$6.46	\$7.03	\$7.35	\$7.11	
3rd Year	\$7.45	\$7.99	\$8.95	\$8.17	
4th Year	\$7.86	\$8.99	\$8.60	\$9.10	

#### RECRUITMENT

Table B-6.5 Adequacy of Recruiting

"#" - indicates number of responses

"#" - indicates number of respo	ABC YES N		ИО	STATEW YES		NO NO		
QUESTIONS	#	8	#	98	#	96	#	90
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	0	0.0	3	100.0	14	56.0	11	44.0
Is apprenticeship recruiting adequate?	0	0.0	3	100.0	13	52.0	12	48.0
Are local contractors aware of the existence of your program to supply them with trained carpenters?	1	50.0	1	50.0	12	50.0	12	50.0
Do you think apprenticeship programs are being marketed to potential employers?	1	33.3	2	66.7	10	43.5	13	56.5

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed?

Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-6.6 Recruiting Strategies

· ·	AVERAGE				
STRATEGY		ABC	STATEWIDE		
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS	
Utilizing advisory committee activities to recruit apprentices.	2.67	2.00	2.00	2.06	
Advertising the program in local newspapers and journals.	2.00	1.50	2.17	2.05	
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.50	1.50	1.67	1.61	
Providing tours of the program for prosepective students.	1.50	1.50	1.63	1.70	
Development of slide or video tape presentations for distribution throughout the region.	1.50	1.50	1.63	1.68	
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.00	1.00	1.43	1.25	
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.00	1.00	1.40	1.41	

# JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-6.7 Job Placement Factors

FACTORS	DEGREE OF INFLUENCE		
	ABC	STATE- WIDE	
Existence of an advisory or craft committee for the program.	4.00	2.71	
Relationship between program personnel and local contractors.	3.50	2.86	
The quality and adequacy of training provided to the students.	3.00	3.48	
Cooperation between instructor and placement officer.	3.00	2.48	
Providing information on local employment opportunities.	3.00	2.33	
Students had previous on-site experience.	2.00	3.05	
Counseling students on job opportunities and requirements.	2.00	2.48	
Help from students' friends and relatives to get job contacts.	2.00	2.30	

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-6.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from one apprenticeship job to another apprenticeship job	А	BC	STATEWIDE	
	AVG.	MEDIAN	AVG.	MEDIAN
(in days)	10.0	10.0	25.8	10.0

# JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program?

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-6.9 Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS		DEGREE OF INFLUENCE	
	ABC	STATE- WIDE	
The quality and adequacy of training provided to the students.		3.53	
Relationship between program personnel and local contractors.		3.14	
Cooperation between instructor and placement officer.		2.79	
Counseling students on job opportunities and requirements.		2.65	
Actively contacting contractors and inviting them to visit the progam and interview the students.		2.23	
Providing information on local employment opportunities.		2.50	
Help from students' friends and relatives to get job contacts.		2.39	
Existence of an advisory or craft committee for the program.		2.07	

<sup>\*</sup> NO RESPONSES WERE RECEIVED FROM THIS ASSOCIATION ON THIS QUESTION

What percentage of the apprentices who completed your training programs have fulltime carpentry jobs?

Table B-6.10 Percentage of Graduates with Full-Time Carpentry Jobs

Percentage who	AVE	RAGE
have Full-time	ABC	STATE- WIDE
Carpentry Jobs	100.0	89.4

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-6.11 Average Hourly Wage Upon Graduation

	AVERAGE		
Hourly	ABC	STATE- WIDE	
Wage	\$9.25	\$10.30	

#### IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary 2 = desirable

1 = unnecessary

Table B-6.12 Importance of Skills

	AVEF	AGE
SKILLS	ABC	STATE- WIDE
Coform	4.00	3.63
Safety. Read blueprints.	4.00	3.58
Frame partitions.	3.67	3.50
Frame floor and sills.	3.67	3.46
Frame roofs.	3.67	3.04
Install door, window frame and units.	3.33	3.48
Construct forms (footing, walls, edge, curb).	3.33	3.46
Construct forms (piers, columns, beam, slab,	3.33	3.46
stairs, bridge, deck).	3.33	3.38
Install decking and sheathing: Install exterior wall covering and trim.	3.33	3.33
Construct interior stairs.	3.33	3.29
Conduct site preparation and layouts.	3.33	3.21
Install structural timber.	3.33	3.13
Preplan future activities.	3.33	3.04
Install paneling, furring, soffit ceiling.	3.33	3 04
Install cabinets, fixtures and shelving.	3.00	3.04
Install drywall material.	2.67	3.08
Build trusses.	2.67	2.29
Install insulation and sound control material.	2.33	2.67
Apply weather stripping and caulking.	2.00	2.92

#### ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-6.13 Opinion of Shortage

RESPONSE	ABC		STATEWIDE		
RESPONSE	NUMBER OF RESPONSES	de de	NUMBER OF RESPONSES	8	
Yes	3	100.0	15	83.3	
No	0	0.0	3	16.7	

#### SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry? .
Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-6.14 Degree of Specialization in Carpentry

Dograd	AVE	RAGE
Degree of	ABC	STATE- WIDE
Specialization	3.33	3.59

Will the future carpenter be performing a broader variety of tasks? Use the following rating system:

4 = Much broader

3 = Broader

2 = No change1 = Narrower

Table B-6.15 Broadness of Performance of Carpentry Tasks

	AVERAGE		
TYPE OF CARPENTER	ABC	STATE- WIDE	
Form Carpenters	3.00	2.62	
Finish Carpenters	2.00	2.60	
Framing Carpenters	2.50	2.55	

#### CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Table B-6.16 Apprenticeship Programs' Opinion of Licensing Carpenters

RESPONSE	ABC		STATEWIDE	
	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	g <sub>g</sub>
Yes	3	100.0	21	84.0
No	0	0.0	4	16.0

#### COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-6.17 Apprentice/Industry Communication

TYPES OF COMMUNICATIONS	AVERAGE				
TIPES OF COMMONICATIONS	ABC	STATE- WIDE			
Advisory committee	3.50	3.00			
Formal meeting of the two groups	3.00	3.22			
Attending industry functions	2.50	2.82			
Written contact	2.50	1.82			

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-6.18 Communication Levels

INSTITUTIONS	AVERAGE			
	ABC	STATE- WIDE		
Open shop apprenticeship programs	4.00	2.96		
Vocational training centers	3.67	3.38		
Construction industry (contractors)	3.33	3.09		
Community College Training	2.00	2.46		
Union apprenticeship programs	1.00	2.33		

# APPENDIX B-7

ASSOCIATED GENERAL CONTRACTORS

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

# Table B-7.1 Background Information

	AVER	AGE	A	GC
BACKGROUND INFORMATION	AGC	STATE- WIDE	MINIMUM	MAXIMUM
Duration of program in years	3.6	3.8	3.0	4.0
Number of apprentices presently enrolled	36.3	35.2	16.0	59.0
Available capacity	98.3	81.3	90.0	101.0
Total hours of classroom instruction in the program	643	605	576	842
Total hours of job site training in the program	7,250	7,667	6,000	8,000
Number of apprentices who graduate each year from program	12.7	11.5	3.0	30.0
Average age of graduates	25.0	25.3	23.0	27.0

#### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-7.2 Average Hourly Wage for Each Year of Apprenticeship

APPRENTICE YEAR	AVERAGE		AGC		
APPRENIICE IEAR	AGC	STATE- WIDE	MINIMUM	MUMIXAM	
1st Year	\$5.17	\$5.98	\$4.15	\$5.87	
2nd Year	\$5.90	\$7.03	\$4.90	\$6.50	
3rd Year	\$6.78	\$7.99	\$5.70	\$7.50	
4th Year	\$7.80	\$8.99	\$6.50	\$8.50	

In your opinion, what should be the average hourly wage of the following?

Table B-7.3 Opinion of Wages

APPRENTICE YEAR	AVE	RAGE	A	GC
APPRENTICE TEAR	AGC	STATE- WIDE	MINIMUM	MAXIMUM
1st Year	\$5.29	\$6.12	\$4.50	\$5.87
2nd Year	\$6.01	\$7.11	\$5.25	\$6.50
3rd Year	\$7.04	\$8.17	\$6.50	\$7.50
4th Year	\$8.56	\$9.10	\$8.39	\$8.80

Table B-7.4 Comparison of Averages of Actual Wages and Opinion of Wages

	ACTUA	L WAGE	OPINIO	N WAGE
APPRENTICE YEAR	AGC	STATE- WIDE	AGC	STATE- WIDE
1st Year	\$5.17	\$5.98	\$5.29	\$6.12
2nd Year	\$5.90	\$7.03	\$6.01	\$7.11
3rd Year	\$6.78	\$7.99	\$7.04	\$8.17
4th Year	\$7.80	\$8.99	\$8.56	\$9.10

### RECRUITMENT

Table B-7.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS		AGC YES		NO		STATES YES		WIDE NO	
	#	g <sub>o</sub>	#	æ	#	8	#	ક	
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	2	50.0	2	50.0	14	56.0	11	44.0	
Is apprenticeship recruiting adequate?	2	50.0	2	50.0	13	52.0	12	48.0	
Are local contractors aware of the existence of your program to supply them with trained carpenters?	1	25.0	3	75.0	12	50.0	12	50.0	
Do you think apprenticeship programs are being marketed to potential employers?	3	75.0	1	25.0	10	43.5	13	56.5	

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed? Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

<u>Table B-7.6</u> Recruiting Strategies

	AVERAGE					
STRATEGY	A	GC	STATEWIDE			
·	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS		
Utilizing advisory committee activities to recruit apprentices.	2.67	2.50	2.00	2.06		
Advertising the program in local newspapers and journals.	2.25	2.00	2.17	2.05		
Development of slide or video tape presentations for distribution throughout the region.	2.00	1.67	1.63	1.68		
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.75	1.00	1.43	1.25		
Providing tours of the program for prosepective students.	1.50	1.50	1.63	1.70		
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.50	1.25	1.67	1.61		
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.25	1.33	1.40	1.41		

## JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

training program.
Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-7.7 Job Placement Factors

FACTORS		EE OF JENCE
	AGC	STATE- WIDE
Students had previous on-site experience.	3.50	3.05
The quality and adequacy of training provided to the students.	3.25	3.48
Existence of an advisory or craft committee for the program.	3.25	2.71
Counseling students on job opportunities and requirements.	3.00	2.48
Relationship between program personnel and local contractors.	2.75	2,86
Cooperation between instructor and placement officer.	2.25	2.48
Help from students' friends and relatives to get job contacts.	2.33	2.30
Providing information on local employment opportunities.	2.25	2.33

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-7.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from one apprenticeship	AGC		STAT	EWIDE
job to another apprenticeship job	AVG.	MEDIAN	AVG.	MEDIAN
(in days)	8.5	7.5	25.8	10.0

# JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program?

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-7.9 Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS		DEGREE OF INFLUENCE		
	AGC	STATE- WIDE		
The quality and adequacy of training provided to the students.	3.50	3.53		
Cooperation between instructor and placement officer.	3.00	2.79		
Relationship between program personnel and local contractors.	2.50	3.14		
Counseling students on job opportunities and requirements.	2.50	2.65		
Help from students' friends and relatives to get job contacts.	2.50	2.39		
Actively contacting contractors and inviting them to visit the progam and interview the students.	2.50	2.23		
Existence of an advisory or craft committee for the program.	2.50	2.07		
Providing information on local employment opportunities.	2.00	2.50		

What percentage of the apprenticees who completed your training programs have fulltime carpentry jobs?

Table B-7.10 Percentage of Graduates With Full-Time Carpentry Jobs

Percentage who	AVERAGE		
have Full-time	AGC	STATE- WIDE	
Carpentry Jobs	93.3	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-7.11 Average Hourly Wage Upon Graduation

	AVERAGE		
Uourly.	AGC	STATE- WIDE	
Hourly Wage	\$9.00	\$10.30	

### IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary 2 = desirable

1 = unnecessary

Table B-7.12 Importance of Skills

	<del></del>	
	AVE	RAGE
SKILLS	AGC	STATE- WIDE
	4.00	3.63
Safety.	4.00	3.58
Read blueprints. Conduct site preparation and layouts.	4.00	3.21
Construct forms (footing, walls, edge, curb).	3.75	3.46
Construct forms (piers, columns, beam, slab, stairs, bridge, deck).	3.75	3.46
Install door, window frame and units.	3.67	3.48
Install decking and sheathing.	3.50	3.38
Install exterior wall covering and trim.	3.50	3.33
Construct interior stairs.	3.50	3.29
Frame partitions.	3.25	3.50
Install structural timber.	3.25	3.13
Preplan future activities.	3.25	3.04
Frame roofs.	3.25	3.04
Apply weather stripping and caulking.	3.25	2.92
Frame floor and sills.	3.00	3.46
Install drywall material.	3.00	3.08
Install paneling, furring, soffit ceiling.	3.00	3.04
Build trusses.	3.00	2.29
Install cabinets, fixtures and shelving.	2.75	3.04
Install insulation and sound control material.	2.25	2.67
instail insulation and sound sources made		

#### ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-7.13 Opinion of Shortage

RESPONSE	A	GC .	STATEWIDE	
	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	98
Yes	2	100.0	15	83.3
No	0	0.0	3	16.7

#### SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry?
Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-7.14 Degree of Specialization in Carpentry

Degree	AVERAGE			
of	AGC	STATE- WIDE		
Specialization	4.00	3.59		

Will the future carpenter be performing a broader variety of tasks?

4 = Much broader Use the following rating system:

3 = Broader

2 = No change

1 = Narrower

Table B-7.15 Broadness of Performance of Carpentry Tasks

	AVERAGE		
TYPE OF CARPENTER	AGC	STATE- WIDE	
Finish Carpenters	3.00	2.60	
Framing Carpenters	3.00	2.55	
Form Carpenters	2.75	2.62	

## CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Table B-7.16 Apprenticeship Programs' Opinion of Licensing Carpenters

RESPONSE	AGC		STATEWIDE	
	NUMBER OF RESPONSES	96	NUMBER OF RESPONSES	90
Yes	2	50.0	21	84.0
No	2	50.0	4	16.0

#### COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-7.17 Apprentice/Industry Communication

TYPES OF COMMUNICATIONS	AVERAGE		
	AGC	STATE- WIDE	
Advisory committee	3.75	3.00	
Formal meeting of the two groups	3.50	3.22	
Attending industry functions	3.00	2.82	
Written contact	1.25	1.82	

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-7.18 Communication Levels

INSTITUTIONS	AVERAGE		
	AGC	STATE- WIDE	
Vocational training centers	3.75	3.38	
Construction industry (contractors)	3.50	3.09	
Community College Training	3.50	2.46	
Open shop apprenticeship programs	3.25	2.96	
Union apprenticeship programs	1.00	2.33	

## APPENDIX B-8

FLORIDA HOME BUILDERS ASSOCIATION

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

# Table B-8.1 Background Information

	AVEF	AVERAGE		FHBA	
BACKGROUND INFORMATION	FHBA	STATE- WIDE	MINIMUM	MAXIMUM	
Duration of program in years	4.0	3.8	4.0	4.0	
Number of apprentices presently enrolled	25.0	35.2	25.0	25.0	
Available capacity	55.0	81.3	50.0	60.0	
Total hours of classroom instruction in the program	648	605	576	720	
Total hours of job site training in the program	8,000	7,667	8,000	8,000	
Number of apprentices who graduate each year from program	3.5	11.5	3.0	4.0	
Average age of graduates	28.0	25.3	26.0	30.0	

#### WAGES

What is the average hourly wage for an apprentice for the following years?

APPRENTICE YEAR	AVERAGE		FHBA	
	FHBA	STATE- WIDE	MINIMUM	MAXIMUM
1st Year	\$4.50	\$5.98	\$4.00	\$5.00
2nd Year	\$5.63	\$7.03	\$5.50	\$5.75
3rd Year	\$6.38	\$7.99	\$6.25	\$6.50
4th Year	\$7.38	\$8.99	\$7.25	\$7.50

In your opinion, what should be the average hourly wage of the following?

Table B-8.3 Opinion of Wage

APPRENTICE YEAR	AVERAGE		FHBA	
	FHBA	STATE- WIDE	MINIMUM	MUMIXAM
1st Year	\$5.25	\$6.12	\$5.00	\$5.50
2nd Year	\$6.13	\$7.11	\$6.00	\$6.25
3rd Year	\$7.00	\$8.17	\$7.00	\$7.00
4th Year	\$8.00	\$9.10	\$8.00	\$8.00

Table B-8.4 Comparison of Averages of Actual Wages and Opinion of Wages

APPRENTICE YEAR	ACTUAL WAGE		OPINION WAGE	
	FHBA	STATE- WIDE	FHBA	STATE- WIDE
1st Year	\$4.50	\$5.98	\$5.25	\$6.12
2nd Year	\$5.63	\$7.03	\$6.13	\$7.11
3rd Year	\$6.38	\$7.99	\$7.00	\$8.17
4th Year	\$7.38	\$8.99	\$8.00	\$9.10

## RECRUITMENT

Table B-8.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS	<del></del>	FHE YES	BA	NO		STATEW] YES		IDE NO	
	#	96	#	8	#	8	#	8	
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	1	50.0	1	50.0	14	56.0	11	44.0	
Is apprenticeship recruiting adequate?	1	50.0	1	50.0	13	52.0	12	48.0	
Are local contractors aware of the existence of your program to supply them with trained carpenters?	1	50.0	1	50.0	12	50.0	12	50.0	
Do you think apprenticeship programs are being marketed to potential employers?	0	0.0	2	100.0	10	43.5	13	56.5	

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed? Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-8.6 Recruiting Strategies

:	AVERAGE				
STRATEGY	F	НВА	STATE	STATEWIDE	
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS	
Utilizing advisory committee activities to recruit apprentices.	3.50	4.00	2.00	2.06	
Utilization of local radio and T.V. stations to place public service announcements about the training program.	3.00	2.50	1.40	1.41	
Advertising the program in local newspapers and journals.	3.00	2.00	2.17	2.05	
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	2.50	3.00	1.67	1.61	
Development of slide or video tape presentations for distribution throughout the region.	2.50	2.50	1.63	1.68	
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	2.00	2.00	1.43	1.25	
Providing tours of the program for prosepective students.	1.50	1.50	1.63	1.70	

## JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-8.7 Job Placement Factors

FACTORS	DEGRE INFLU	
	FHBA	STATE- WIDE
The quality and adequacy of training provided to the students.	4.00	3.48
Existence of an advisory or craft committee for the program.	4.00	2.71
Students had previous on-site experience.	3.50	3.05
Relationship between program personnel and local contractors.	3.50	2.86
Providing information on local employment opportunities.	3.50	2.33
Cooperation between instructor and placement officer.	3.00	2.48
Counseling students on job opportunities and requirements.	3.00	2.48
Help from students' friends and relatives to get job contacts.	3.00	2.30

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-8.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from one apprenticeship	FHBA		STATEWIDE	
job to another apprenticeship job	AVG.	MEDIAN	AVG.	MEDIAN
(in days)	8.0	8.0	25.8	10.0

## JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program? Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Job Placement Factors After Completion of Table B-8.9 Apprenticeship Training Program

FACTORS	DEGREE OF INFLUENCE	
	FHBA	STATE- WIDE
The quality and adequacy of training provided to the students.	4.00	3.53
Relationship between program personnel and local contractors.	4.00	3.14
Counseling students on job opportunities and requirements.	4.00	2.65
Actively contacting contractors and inviting them to visit the progam and interview the students.	4.00	2.23
Existence of an advisory or craft committee for the program.	4.00	2.07
Cooperation between instructor and placement officer.	3.50	2.79
Providing information on local employment opportunities.	3.50	2.50
Help from students' friends and relatives to get job contacts.	3.00	2.39

What percentage of the apprentices who completed your training programs have fulltime carpentry jobs?

Table B-8.10 Percentage of Graduates With Full-Time Carpentry Jobs

Percentage who	AVERAGE		
have Full-time	FHBA	STATE- WIDE	
Carpentry Jobs	95.0	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-8.11 Average Hourly Wage Upon Graduation

	AVERAGE			
Hourly	FHBA	STATE- WIDE		
Wage	\$8.00	\$10.30		

#### IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary 2 = desirable

1 = unnecessary

Table B-8.12 Importance of Skills

	AVER	RAGE
SKILLS	FHBA	STATE- WIDE
	4.00	3.63
Safety.	4.00	3.58
Read blueprints.	3.50	3.50
Frame partitions.	3.50	3.48
Install door, window frame and units.	3.50	3.46
Construct forms (footing, walls, edge, curb). Construct forms (piers, columns, beam, slab,	3.50	3.46
stairs, bridge, deck).	3.50	3.46
Frame floor and sills.	3.50	3.38
Install decking and sheathing.	3.50	3.33
Install exterior wall covering and trim.	3.50	3.21
Conduct site preparation and layouts.	3.50	2.92
Apply weather stripping and caulking.	3.50	3.04
Frame roofs.	3.00	3.13
Install structural timber.	3.00	3.08
Install drywall material. Install cabinets, fixtures and shelving.	3.00	3.04
Install cabinets, fixtures and shorteng.  Install paneling, furring, soffit ceiling.	3.00	3.04
Install paneling, fulling, solite occasion	3.00	2.29
Build trusses.	2.50	3.29
Construct interior stairs. Install insulation and sound control material.	2.50	2.67
Preplan future activities.	1.50	3.04

## ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-8.13 Opinion of Shortage

RESPONSE	FI	HBA	STATEWIDE		
	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	g <sub>e</sub>	
Yes	2	100.0	15	83.3	
No	0	0.0	3	16.7	

#### SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry?
Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-8.14 Degree of Specialization in Carpentry

Degree	AVERAGE			
of	FHBA	STATE- WIDE		
Specialization	4.00	3.59		

Will the future carpenter be performing a broader variety of tasks?

Use the following rating system:

4 = Much broader

3 = Broader

2 = No change

1 = Narrower

Table B-8.15 Broadness of Performance of Carpentry Tasks

	AVERAGE			
TYPE OF CARPENTER	FHBA	STATE- WIDE		
Finish Carpenters	2.50	2.60		
Form Carpenters	1.50	2.62		
Framing Carpenters	1.50	2.55		

## CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Table B-8.16 Apprenticeship Programs' Opinion of Licensing Carpenters -

RESPONSE	RESPONSE FHB.		STATEW	IDE
	NUMBER OF RESPONSES	98	NUMBER OF RESPONSES	%
Yes	2	100.0	21	84.0
No	0	0.0	. 4	16.0

### COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-8.17 Apprentice/Industry Communication

TYPES OF COMMUNICATIONS	AVERAGE			
	FHBA	STATE- WIDE		
Advisory committee	4.00	3.00		
Formal meeting of the two groups	3.00	3.22		
Attending industry functions	3.00	2.82		
Written contact	1.50	1.82		

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-8.17 Communication Levels

INSTITUTIONS	AVERAGE				
	FHBA	STATE- WIDE			
Open shop apprenticeship programs	4.00	2.96			
Vocational training centers	3.50	3.38			
Construction industry (contractors)	3.50	3.09			
Community College Training	3.50	2.46			
Union apprenticeship programs	1.50	2.33			

## APPENDIX B-9

UNION

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

# Table B-9.1 Background Information

	AVEF	RAGE	UNION		
BACKGROUND INFORMATION	UNION	STATE- WIDE	MINIMUM	MAXIMUM	
Duration of program in years	4.0	3.8	4.0	4.0	
Number of apprentices presently enrolled	54.2	35.2	0.0	160.0	
Available capacity	90.4	81.3	5.0	201.0	
Total hours of classroom instruction in the program	587	605	300	680	
Total hours of job site training in the program	8,000	7,667	8,000	8,000	
Number of apprentices who graduate each year from program	11.9	11.5	2.5	20.0	
Average age of graduates	25.4	25.3	22.0	28.0	

#### WAGES

What is the average hourly wage for an apprentice for the following years?

Table B-9.2 Average Hourly Wage for Each Year of Apprenticeship

APPRENTICE YEAR	AVERAGE		UNI	ON
AFFRENTICE TEAR	UNION	STATE- WIDE	MINIMUM	MUMIXAM
1st Year	\$6.68	\$5.98	\$5.61	\$7.80
2nd Year	\$7.73	\$7.03	\$6.50	\$8.90
3rd Year	\$8.80	\$7.99	\$7.04	\$10.20
4th Year	\$9.84	\$8.99	\$7.58	\$11.40

In <u>your opinion</u>, what should be the average hourly wage of the following?

Table B-9.3 Opinion of Wages

APPRENTICE YEAR	AVERAGE		UN	ION
AFFRENTICE TEAR	UNION	STATE- WIDE	MINIMUM	MUMIXAM
1st Year	\$6.57	\$6.12	\$4.25	\$9.33
2nd Year	\$7.63	\$7.11	\$4.75	\$10.80
3rd Year	\$8.69	\$8.17	\$5.25	\$12.29
4th Year	\$9.73	\$9.10	\$5.75	\$13.78

Table B-9.4 Comparison of Averages of Actual Wages and Opinion of Wages

	ACTUAL WAGE		OPINIO	N WAGE
APPRENTICE YEAR	UNION	STATE- WIDE	UNION	STATE- WIDE
1st Year	\$6.68	\$5.98	\$6.57	\$6.12
2nd Year	\$7.73	\$7.03	\$7.63	\$7.11
3rd Year	\$8.80	\$7.99	\$8.69	\$8.17
4th Year	\$9.84	\$8.99	\$9.73	\$9.10

### RECRUITMENT

Table B-9.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS		UNION YES N		NO	STATE YES		WIDE NO	
	#	Q.	#	g.	#	ક	#	ક
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	9	81.8	2	18.2	14	56.0	11	44.0
Is apprenticeship recruiting adequate?	7	63.6	4	36.4	13	52.0	12	48.0
Are local contractors aware of the existence of your program to supply them with trained carpenters?	7	63.6	4	36.4	12	50.0	12	50.0
Do you think apprenticeship programs are being marketed to potential employers?	5	50.0	5	50.0	10	43.5	13	56.5

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed? Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

Table B-9.6 Recruiting Strategies

		AVER	AGE		
STRATEGY	ហ	NION	STATEWIDE		
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS	
Development of slide or video tape presentations for distribution throughout the region.	2.27	1.75	1.63	1.68	
Advertising the program in local newspapers and journals.	2.00	2.33	2.17	2.05	
Providing tours of the program for prosepective students.	1.82	2.00	1.63	1.70	
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.64	1.67	1.67	1.61	
Utilizing advisory committee activities to recruit apprentices.	1.55	1.71	2.00	2.06	
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.33	1.33	1.43	1.25	
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.27	1.33	1.40	1.41	

# JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.
Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-9.7 Job Placement Factors

FACTORS		DEGREE OF INFLUENCE		
	UNION	STATE- WIDE		
The quality and adequacy of training provided to the students.	3.50	3.48		
Relationship between program personnel and local contractors.	2.90	2.86		
Students had previous on-site experience.	2.80	3.05		
Cooperation between instructor and placement officer.	2.60	2.48		
Existence of an advisory or craft committee for the program.	2.20	2.71		
Counseling students on job opportunities and requirements.	2.10	2.48		
Help from students' friends and relatives to get job contacts.	2.10	2.30		
Providing information on local employment opportunities.	2.00	2.33		

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

<u>Table B-9.8</u> Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from one apprenticeship	UN	ION	STATEWIDE		
job to another apprenticeship job	AVG.	MEDIAN	AVG.	MEDIAN	
(in days)	92.5	7.0	25.8	10.0	

### JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program? Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-9.9 Job Placement Factors After Completion of Apprenticeship Training Program

FACTORS		E OF ENCE
	UNION	STATE- WIDE
The quality and adequacy of training provided to the students.	3.50	3.53
Relationship between program personnel and local contractors.	3.13	3.14
Cooperation between instructor and placement officer.	2.63	2.79
Providing information on local employment opportunities.	2.50	2.50
Counseling students on job opportunities and requirements.	2.30	2.65
Help from students' friends and relatives to get job contacts.	2.25	2.39
Actively contacting contractors and inviting them to visit the progam and interview the students.	1.86	2.23
Existence of an advisory or craft committee for the program.	1.50	2.07

What percentage of the apprentices who completed your training programs have fulltime carpentry jobs?

Table B-9.10 Percentage of Graduates With Full-Time Carpentry Jobs

Percentage who	AVERAGE		
have Full-time	UNION	STATE- WIDE	
Carpentry Jobs	86.1	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-9.11 Average Hourly Wage Upon Graduation

	AVERAGE	
Hours les	UNION	STATE- WIDE
Hourly Wage	\$11.20	\$10.30

# IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary 2 = desirable

1 = unnecessary

Table B-9.12 Importance of Skills

	AVEF	RAGE
SKILLS	UNION	STATE- WIDE
	3.64	3.63
Safety. Construct forms (footing, walls, edge, curb).	3.64	3.46
Install door, window frame and units.	3.55	3.48
Construct forms (piers, columns, beam, slab,	3.55	3.46
stairs, bridge, deck).	3.46	3.50
Frame partitions.	3.46	3.46
Frame floor and sills.	3.46	3.38
Install decking and sheathing.	3.46	3.29
Construct interior stairs.	3.36	3.08
Install drywall material.	3,27	3.33
Install exterior wall covering and trim.	3.27	3.04
Install cabinets, fixtures and shelving.	3.18	3.58
Read blueprints.	3.18	3.13
Install structural timber.	3.18	3.04
Install paneling, furring, soffit ceiling.	3.09	3.04
Preplan future activities.	3.00	2.92
Apply weather stripping and caulking.	3.00	2.67
Install insulation and sound control material.	2.82	3.21
Conduct site preparation and layouts.	2.64	3.04
Frame roofs.	2.00	2.29
Build trusses.		

## ASSESSMENT OF CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-9.13 Opinion of Shortage

RESPONSE	UNION	1	STATEWIDE			
RESPONSE	NUMBER OF % RESPONSES		NUMBER OF RESPONSES	0/0		
Yes	6	75.0	15	83.3		
No	2	25.0	3	16.7		

# SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry?
Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-9.14 Degree of Specialization

Degree	AVERAGE				
of	UNION	STATE-			
Specialization	3.55	3.59			

Will the future carpenter be performing a broader variety of tasks? 4 = Much broader Use the following rating system:

3 = Broader

2 = No change

1 = Narrower

Table B-9.15 Broadness of Performance of Carpentry Tasks

	AVE	RAGE
TYPE OF CARPENTER	UNION	STATE- WIDE
Framing Carpenters	2.67	2.55
Form Carpenters	2.78	2.62
Finish Carpenters	2.44	2.60

# CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Apprenticeship Programs' Opinion of Licensing Table B-9.16 Carpenters

RESPONSE	UNION		STATEWIDE		
·	NUMBER OF RESPONSES	96	NUMBER OF RESPONSES	96	
Yes	10	90.9	21	84.0	
No	1	9.1	4	16.0	

## COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-9.17 Apprentice/Industry Communications

TYPES OF COMMUNICATIONS	AVERAGE				
	UNION	STATE- WIDE			
Formal meeting of the two groups	3.20	3.22			
Attending industry functions	2.80	2.82			
Advisory committee	2.50	3.00			
Written contact	2.00	1.82			

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-9.18 Communication Levels

INSTITUTIONS	AVERAGE			
INSTITUTIONS	UNION	STATE- WIDE		
Union apprenticeship programs	3.64	2.33		
Vocational training centers	3.27	3.38		
Construction industry (contractors)	2.82	3.09		
Open shop apprenticeship programs	2.00	2.96		
Community College Training	1.78	2.46		

# APPENDIX B-10

OTHER NON-UNION ASSOCIATIONS

# BACKGROUND INFORMATION FOR APPRENTICESHIP PROGRAMS

# Table B-10.1 Background Information

	AVER	AGE	OTHERS'		
BACKGROUND INFORMATION	OTHERS	STATE- WIDE	MINIMUM	MAXIMUM	
Duration of program in years	3.8	3.8	3.0	4.0	
Number of apprentices presently enrolled	8.4	35.2	0.0	30.0	
Available capacity	82.0	81.3	6.0	200.0	
Total hours of classroom instruction in the program	597	605	576	640	
Total hours of job site training in the program	7,333	7,667	6,000	8,000	
Number of apprentices who graduate each year from program	2.0	11.5	2.0	2.0	
Average age of graduates	23.8	25.3	21.0	25.5	

## WAGES

What is the average hourly wage for an apprentice for the following years?

APPRENTICE YEAR	AVE	RAGE	OTHERS			
	OTHERS	STATE- WIDE	MINIMUM	MUMIXAM		
1st Year	\$6.83	\$5.98	\$4.50	\$9.15		
2nd Year	\$7.84	\$7.03	\$6.00	\$9.68		
3rd Year	\$8.65	\$7.99	\$7.00	\$10.29		
4th Year	\$9.67	\$8.99	\$8.50	\$10.84		

In your opinion, what should be the average hourly wage of the following?

Table B-10.3 Opinion of Wages

APPRENTICE YEAR	AVE	RAGE	OTHERS			
AFFRENTICE TEAR	OTHERS	STATE- WIDE	MINIMUM	MAXIMUM		
1st Year	Year \$6.47		\$4.25	\$9.15		
2nd Year	\$7.31	\$7.11	\$4.75	\$9.68		
3rd Year	\$8.18	\$8.17	\$5.25	\$10.29		
4th Year	\$8.86	\$9.10	\$5.75	\$10.84		

Table B-10.4 Comparison of Averages of Actual Wages and Opinion of Wages

	ACTUAI	L WAGE	OPINION WAGE		
APPRENTICE YEAR	OTHERS	STATE- WIDE	OTHERS	STATE- WIDE	
1st Year	\$6.83	\$5.98	\$6.47	\$6.12	
2nd Year	\$7.84	\$7.03	\$7.31	\$7.11	
3rd Year	\$8.65	\$7.99	\$8.18	\$8.17	
4th Year	\$9.67	\$8.99	\$8.86	\$9.10	

# RECRUITMENT

Table B-10.5 Adequacy of Recruiting

"#" - indicates number of responses

QUESTIONS		OTHERS YES		s NO		STATES YES		WIDE NO	
	#	₹	#	o <sub>f</sub> o	#	96	#	96 	
In your opinion, are the apprenticeship training programs fulfilling the demand for trained carpenters?	2	40.0	3	60.0	14	56.0	11	44.0	
Is apprenticeship recruiting adequate?	3	60.0	2	40.0	13	52.0	12	48.0	
Are local contractors aware of the existence of your program to supply them with trained carpenters?	2	40.0	3	60.0	12	50.0	12	50.0	
Do you think apprenticeship programs are being marketed to potential employers?	1	25.0	3	75.0	10	43.5	13	56.5	

Below, several possible strategies are listed for increasing apprenticeship recruitment. In your opinion, what is the degree of use and the degree of success for each item listed? Use the following rating system:

4 = extremely utilized, extremely successful

3 = utilized, successful

2 = partially utilized, partially successful

1 = not utilized, not successful

<u>Table B-10.6</u> Recruiting Strategies

	AVERAGE				
STRATEGY	OT	OTHERS		STATEWIDE	
	UTILIZ.	SUCCESS	UTILIZ.	SUCCESS	
Advertising the program in local newspapers and journals.	2.20	1.75	2.17	2.05	
Development of slide or video tape presentations for distribution throughout the region.	2.20	1.25	1.63	1.68	
Utilizing advisory committee activities to recruit apprentices.	1.60	1.50	2.00	2.06	
Staff takes past and present students to feeder school to provide honest, realistic information regarding the training program.	1.60	1.25	1.67	1.61	
Providing tours of the program for prosepective students.	1.40	1.50	1.63	1.70	
Utilization of local radio and T.V. stations to place public service announcements about the training program.	1.40	1.25	1.40	1.41	
Instructor takes a mobile carpentry workshop to conduct recruitment sessions in highschools and malls.	1.33	1.00	1.43	1.25	

# JOB PLACEMENT DURING APPRENTICESHIP TRAINING

In your opinion, which of the following factors had the most influence on the placement of apprentices during the apprenticeship training program.

Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-10.7 Job Placement Factors

FACTORS		DEGREE OF INFLUENCE	
	OTHERS	STATE- WIDE	
The quality and adequacy of training provided to the students.	3.50	3.48	
Students had previous on-site experience.	3.25	3.05	
Counseling students on job opportunities and requirements.	2.75	2.48	
Existence of an advisory or craft committee for the program.	2.50	2.71	
Providing information on local employment opportunities.	2.50	2.33	
Help from students' friends and relatives to get job contacts.	2.50	2.30	
Relationship between program personnel and local contractors.	2.25	2.86	
Cooperation between instructor and placement officer.	2.00	2.48	

What is the average time lag for placing an apprentice from one apprenticeship job to another apprenticeship job?

Table B-10.8 Time Lag for Job Placement Between Jobs

Time Lag for placing an apprentice from one apprenticeship	OTHERS		STAT	EWIDE
job to another apprenticeship job	AVG.	MEDIAN	AVG.	MEDIAN
(in days)	61.5	3.0	25.8	10.0

# JOB PLACEMENT AFTER COMPLETION OF APPRENTICESHIP PROGRAM

In your opinion, which of the following factors had the most influence on the placement of graduates after the completion of your apprenticeship program? Use the following rating system:

4 = extremely influential

3 = influential

2 = little influence

1 = no influence

Table B-10.9 Job Placement Factors After Completion of Apprenticeship Training Programs

FACTORS	DEGREE OF INFLUENCE	
		STATE- WIDE
The quality and adequacy of training provided to the students.	3.33	3.53
Relationship between program personnel and local contractors.	3.00	3.14
Counseling students on job opportunities and requirements.	3.00	2.65
Cooperation between instructor and placement officer.	2.50	2.79
Providing information on local employment opportunities.	2.00	2.50
Help from students' friends and relatives to get job contacts.	2.00	2.39
Existence of an advisory or craft committee for the program.		2.07
Actively contacting contractors and inviting them to visit the progam and interview the students.	1.50	2.23

What percentage of the apprenticees who completed your training programs have fulltime carpentry jobs?

<u>Table B-10.10</u> Percentage of Graduates With Full-Time Carpentry Jobs

Percentage who	AVERAGE		
have Full-time	OTHERS	STATE- WIDE	
Carpentry Jobs	86.7	89.4	

What is the average hourly wage of an individual who has just graduated from your apprenticeship program?

Table B-10.11 Average Hourly Wage Upon Graduation

	AVERAGE		
Hourly	OTHERS	STATE- WIDE	
Wage	\$11.14	\$10.30	

# IMPORTANCE OF SKILLS

Below are a list of various skills which a journeyman carpenter might posses. Please circle the number which in your opinion, will best enable a journeyman to perform on the job.

Use the following rating system:

4 = absolutely necessary

3 = necessary 2 = desirable

1 = unnecessary

Table B-10.12 Importance of Skills

	AVER	AGE
SKILLS		STATE-
	OTHERS	WIDE
Read blueprints.	3.75	3.58
Frame partitions.	3.75	3.50
Frame floor and sills.	3.75	3.46
Install door, window frame and units.	3.25	3.48
Install exterior wall covering and trim.	3.25	3.33
Conduct site preparation and layouts.	3.25	3.21
Preplan future activities.	3.25	3.04
Eramo roofs	3.25	3.04
Construct forms (piers, columns, beam, slab,	3.00	3.46
stairs, bridge, deck).		
Install decking and sheathing.	3.00	3.38
Construct interior stairs.	3.00	3.29
Cafety	2.75	3.63
Construct forms (footing, walls, edge, curb).	2.75	3.46
Install structural timber.	2.75	3.13
Install drywall material.	2.75	3.08
Install cabinets, fixtures and shelving.	2.75	3.04
Apply weather stripping and caulking.	2.75	2.92
tartall manaling furring, Sollit Celling.	2.50	3.04
Install insulation and sound control material.	2.50	2.67
Build trusses.	1.75	2.29

#### CARPENTER SHORTAGE

A shortage of skilled carpenters is projected for the coming years in Florida. Do you agree with this?

Table B-10.13 Opinion of Shortage

RESPONSE	OTHERS		STATEWIDE	
RESPONSE	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	8
Yes	2	66.7	15	83.3
No	1	33.3	3	16.7

# SPECIALIZATION OF CARPENTRY

To what degree do you feel that specialization has entered the field of carpentry?
Use the following rating system:

4 = Large degree

3 = Necessary

2 = Desirable

1 = No degree

Table B-10.14 Degree of Specialization

Degree	AVERAGE		
of	OTHERS	STATE- WIDE	
Specialization	3.33	3.59	

Will the future carpenter be performing a broader variety of tasks? 4 = Much broader

Use the following rating system:

3 = Broader

2 = No change

1 = Narrower

Table B-10.15 Broadness of Performance of Carpentry Tasks

	AVERAGE		
TYPE OF CARPENTER	OTHERS	STATE- WIDE	
Finish Carpenters	2.75	2.60	
Form Carpenters	2.50	2.62	
Framing Carpenters	2.50	2.55	

# CARPENTER LICENSING

In your opinion would there be better skilled carpenters if they were required to be licensed?

Apprenticeship Programs' Opinion of Licensing Table B-10.16 Carpenters

RESPONSE	OTHERS		STATEW	IDE
	NUMBER OF RESPONSES	8	NUMBER OF RESPONSES	96
Yes	4	80.0	21	84.0
No	1	20.0	4	16.0

# COMMUNICATION WITH INDUSTRY

Rank (1,2,3,4; 4 being the most important) the following as to the best method of establishing an apprentice/industry linkage.

4 = most important

3 = important

2 = of some importance

1 = not important

Table B-10.17 Apprentice/Industry Linkage

TYPES OF COMMUNICATIONS	AVERAGE		
TIPES OF COMMONICATIONS	OTHERS	STATE- WIDE	
Formal meeting of the two groups	3.25	3.22	
Advisory committee	2.75	3.00	
Attending industry functions	2.75	2.82	
Written contact	1.75	1.82	

What level of communication does the apprenticeship program have with the following institutions? Choose one of the choices using the following scale:

4 = very close

3 = close

2 = remote

1 = very remote

Table B-10.18 Communication Levels

INSTITUTIONS	AVERAGE	
INDITIONS	OTHERS	STATE- WIDE
Open shop apprenticeship programs	3.50	2.96
Vocational training centers	3.00	3.38
Construction industry (contractors)	3.00	3.09
Community College Training	2.75	2.46
Union apprenticeship programs	1.50	2.33

# APPENDIX C

SAMPLE CURRICULA FROM EACH ASSOCIATION

# ON THE JOB TRAINING HOURS FROM

# AN ASSOCIATED BUILDERS & CONTRACTORS CARPENTRY PROGRAM

# APPARENTICE WAGE STRUGGERE

WORK PROCESSES FOR CARPENTRY 860381.022 APPROXIT'S HOURS 1500 FOUNDATIONS, WALLS AND FLOORS Laying out and leveling Building and placing straight concrete forms 3. Lining up and bracing concrete walls and columns 4. Laying out footings 5. Building irregular concrete forms building forms for concrete stairways Laying out building lines 7. 800 FRAMING (FOUNDATIONS AND WALLS) 1. Laying out and framing sills and girders 2. Framing and setting floor joists Erecting walls and partitions 4. Lining up and bracing walls and partitions Installing sheathing and plaster grounds Building stagings Laying out walls and partitions 7. 700 ROOFS Framing and setting common rafters 2. Framing and setting valley rafters 3. Framing and setting hip rafters Framing and setting jack rafters Applying sheathing, composition shingles and other types of roof covering 1000 EXTERIOR HILL WORK

- Decermining use of tools, materials and equipment
- Operating skill saw, electric drill and sander
- Setting up and operating bench saw

# INTERIOR WALL COVERINGS

Applying wood coverings

- Applying composition, sheet rock or fiber board
- Thorniline baseboards

# 500

- 1. Laying sub-floors
- 2. Laying Bardwood floors
- 7. Erecting forms for descripte

#### STAIRS

- 1. Laying out and cutting stair-horse for various types of stairways
- 2. Laying out and cutting various treads
- 3. Installing railings

# INTERIOR FINISH

- 1. Cutting and fitting base
- 2. Cutting and fitting mouldings
- 3. Setting door jambs
- 4. Fitting and hanging windows
- 5. Fitting and fastening hardware
- 6. Fitting and hanging doors

#### MISCELLANEOUS

- 1. Building walkways
- 2. Erecting scaffolding
- 3. Making Temporary sheds
- 4. Making miscellaneous repairs and additions
- 5. Erecting miscellaneous types of concrete forms

TOTAL HOURS:

ድረ

# ON THE JOB TRAINING HOURS FROM

# AN ASSOCIATED GENERAL CONTRACTORS CARPENTRY PROGRAM

SECTION 19	a - SCHEDULE OF PROCESSES	APPROXIMATE BY RS	
1. Cor	e Instruction		
b. c. d. e. f. g. h. i.	Safety and First Aid Industry Orientation Hand Tools Power Tools Special Tools Easic Math Free Enterprise System Basic Blueprint Reading Transit, Level and Laser Material Handling and Storage	20	00 Ers
k. 2. For	Fasteners and Hardware		00 113
a. b. c. d. e. f. g. h.	Site Preparation and Layout Introduction to Forming Footing Forms Wall Forms Edge Forms on Grade On Grade Curb Forms Vertical Piers and Columns Horizontal Beam Forms Above Grade Slab Form Fireproof Encasement Forms Safety and First Aid	200	00 Hrs
3. Fra			
b. c. d. e. f.	Floor and Sill Framing Wall Partition Framing Roof Framing Trusses Light Metal Framing Structural Timber Construction Decking and Sheathing Safety and First Aid	100	00 Hrs
4. Ex	terior Finish		
<b>b.</b> 1	Wall Covering and Trim Weather Stripping and Caulking Door, Window Frames and Units Safety and First Aid	800	O Hrs
5. In	terior Finish		
b. c.	Dry Wall Fixture Installation and Shelving Stair Construction Door Hanging and Trim and Hardware Paneling Systems		00 Hrs

## ON THE JOB TRAINING HOURS

# FROM A FLORIDA HOME BUILDERS ASSOCIATION CARPENTRY PROGRAM

CARPENTRY

DOT # 860 381.022

Α.	FGRM BUILDING	400 hours
8.	ROUGH FRAMING	1500 hours
C.	OUTSIDE FINISHING	1200 hours
D.	INSIDE FINISHING	1500 hours
Ε.	HARDWARE FITTING	500 hours
F.	LAYOUT	1200 hours
G-;	CARE AND USE OF TOOLS AND WOODWORKING MACHINERY	700 hours
н.	MISCELLANEOUS	1000 hours
	TOTAL	8000 hours

## ON THE JOB TRAINING HOURS

# FROM A UNION CARPENTRY PROGRAM

Apprentices must give the Executive Director written excuse from a Doctor, or other responsible person, stating a valid reason for not attending a related class. Acceptable excuses will include proven sickness of the apprentice, or that of his family necessita his presence, death, or accidents.

Apprentices must adhere to any policy directive issued by the Join Apprenticeship Training Committee.

# TRADE EXPERIENCE SCHEDULE FOR CARPENTER APPRENTICES

# SECTION 19.

The following schedule is an example of the type of work experience and training considered necessary to develop a skilled and product. Worker in the carpentry trade, within the limits of basic trade requirements.

APPROXIMATE HOUF

A.	ORIENTATION 500		
	1. 2.	Safety Use and care of tools Blueprint reading	
Б.	LAYOUT1500		
	1. 2.	Batterboards Partitions	

Doors and windows

Box-out in concrete walls

c.	MAOR	BUILDING20	00
	2.	Build and place straight concrete forms Euild and place irregular concrete forms Build and place concrete forms for stairways and floors, walls and columns	
D.	ROUGI	H FRAMING 7	50
	3.	Floor, wall, roof, stairs, scaffolding, etc., on both house and neavy construction Metal studs Sheet rock Lathing	
_		IDE FINISHING 7	750
E.			
	2. 3. 4.	Application of cornice and wall trim Set door and window frames Application of trimming fixtures Roof covering	
F.	INSI	DE FINISHING20	000
	1. 2. 3. 4. 5. 7.	Application of door and window trim Fit and sand doors and windows Application of baseboard and moldings Construction and setting cases, wardrobes and stairwork Floor covering Panel installation Acoustical ceilings	
G.	HARI	OWARE FITTING	250
	1.	Application of hardware and fittings to exterior and interior of buildings, doors and windows	•
н.	MIS	CELLANEOUS	250
	2.		
TOT	AL AP	PROXIMATE HOURS8	000

APPROXIMATE HOURS

# RELATED CLASSROOM INSTRUCTION OUTLINE FROM

# AN ASSOCIATED BUILDERS & CONTRACTORS CARPENTRY PROGRAM

## RELATED INSTRUCTION

CARPENTRY I	<u></u>	
Module No.		Classroom Hours
10101	Orientation	<b>6</b> .
10102	Safety	3
10103	Carpentry Math	24
10104	Nails, Fasteners, and Adhesives	3
10105	Wood Building Materials	6
10201	Floor Systems	21
10203	Wall Systems	15
10301	Hand Tools	. 6
10302	Stationary and Portable Power Tools	12
10401	Site Layout	12
10402	Reading Plans and Elevations	21
10501	Concrete and Reinforced Concrete	6
10502	Concrete Handling and Placement	3 .
10504	Forming Foundations and Flatwork	9
	Total Hours - First Ye	ar: 147
CARPENTRY I	<u>1</u>	
10202	Floor Systems Special	27
10204	Wall Systems, Tilt Up	15
10205	Roof Systems	24
10403	Sketching, Visualization and Specifications	24
10404	Field Engineering Principles	36
10505	Forming	27
10508	Water and Damp Prooffing	3
	Total Hours: Second Year:	156

# RELATED INSTRUCTION

CARPENTRY I	<u>11</u>	
Module No.		Classroom Hours
10206	Stair Construction	15
10503	Reinforcing Concrete	18
10506	Patented Forms	21
10601	Interior Finish	12
10603	Exterior Finish .	48
10604	Roofing Application	<u>39</u>
	Total Hours - Third Year	: 153
•		
CARPENTRY		
10106	 Introduction to Supervision	15
10207	Finish Stairs	27
10405	Laser Instruments	6
10601	Supplement to Ceiling Systems	6
10602	Metal Studs and Drywall	24
10605	Interior Finish (Doors and Windows)	36
10606	Wall and Floor Specialties	15
10607	Cabinetry	<u>· 21</u>

Total Hours - Fourth Year: 150

#### RELATED CLASSROOM INSTRUCTION OUTLINE FROM

## AN ASSOCIATED GENERAL CONTRACTORS CARPENTRY PROGRAM

## SECTION 24 - RELATED INSTRUCTION-COURSE OUTLINE

#### FIRST YEAR

#### **ORIENTATION:**

- a. Apprenticeship & Standards
- b. Your Industry & Your Future

#### HTAM

#### SAFETY - FIRST AID

#### CARPENTRY & CONSTRUCTION:

- a. Types of Construction
- b. The building trades

#### CONSTRUCTION MATERIALS:

- a. Nature of Wood
- b. Soft Wood & Hardwood
- c. Manufacture of Lumber
- d. Fastening Systems

# HAND TOOLS:

- a. Measuring & Layout Tools
- b. Sawing & Cutting Tools
- c. Boring & Clamping Tools
- d. Smoothing Tools

#### POWER TOOLS:

- .a. Portable & Stationary Power Saws
- b. Drills & Screwdrivers
- c. Planes, Routers & Sanders
- d. Powder-Actuated Tools
- e. Welding & Metal Cutting Equipment

# CONSTRUCTION EQUIPMENT & SITE CONDITIONS:

- a. Aids
- b. Machinery

#### FOUNDATION CONSTRUCTION:

- a. Site & Layouts
- b. Types
- c. Concrete
- d. Forming Methods
- e. Moisture Control & Termite Prevention

#### SECOND YEAR

MATH

SAFETY - FIRST AID

FOUNDATION CONSTRUCTION:

a. Review of First Year

LEVELING INSTRUMENTS & OPERATIONS

CONCRETE HEAVY CONSTRUCTION:

- a. Foundation Design
- b. Forms & Placement
- c. Prefabricated Systems

FLOOR, WALL & CEILING FRAME CONSTRUCTION

ROOF FRAME CONSTRUCTION

#### THIRD YEAR

MATH

SAFETY - FIRST AID

BUILDING DESIGN & BLUEPRINT READING:

- a. Design, Plans & Specifications
- b. Understanding Blueprints
- c. Plat, floor & Foundations Plans
- d. Door, Window & Finish Schedules
- e. Exterior Elevations
- f. Codes, Zoning, Permits & Inspections

#### **ENERGY CONSERVATION:**

a. Insulation & Construction Methods

# FOURTH YEAR

HTAM

SAFETY - FIRST AID

EXTERIOR FINISHES

INTERIOR FINISHES

STARIWAY CONSTRUCTION

POST & BEAM CONSTRUCTION

BLUEPRINTS

## RELATED CLASSROOM INSTRUCTION OUTLINE FROM

# A FLORIDA HOMEBUILDERS ASSOCIATION CARPENTRY PROGRAM

## OUTLINE OF NEFBA CARPINTRY CURRICULUM

#### YEAR I

- I. A. Safety and first aid
  - B. Read rule
  - C. Use of hand tools
  - D. Use of circular saw-table saw-radial arm saw
  - E. Introduction to steel square
  - F. Use of power accuated tools and air nailers
  - G. Introduction to use of transit and builders level
  - H. Construction materials
  - I. Scaffolding
- II. A. Install sill plate footing and low foundation wall
  - B. Form construction: foundation wall
  - C. Form construction: high wall
  - D. Form construction: steps (on grade)
  - E. Concrete work
  - F. Construction terms
  - G: Trade mathematics, sketching and basic blueprint reading
- III. A. Framing wall and floor

#### YEAR II

- IV. A. Roof-franing
  - B. Stair building
  - C. Floor framing
  - D. Studding
  - E. Plates
  - F. Sheathing
  - G. Metal studs
  - H. Post & beam construction
- V. Form (Concrete) Construction
- VI. Advanced carpentry math
- YEAR III VII. Stair construction
  - VIII. Finish Carpentry (exterior)
    - D. Finish Carpentry (interior)
    - X. Site layout

#### YEAR IV.

- M. Sketching and drafting (to scale) blueprint reading
- XII. Introduction to job planning and organization
- XIII. Estimating materials
- sl/. Building code
- (1) Leadership and supervision

## RELATED CLASSROOM INSTRUCTION OUTLINE FROM

# A UNION CARPENTRY PROGRAM

# RELATED TRAINING OUTLINE

The North Florida Carpenters use the P.E.T. (Performance Evaluation Training) system of related training, which is made up of twelve (12) training modules.

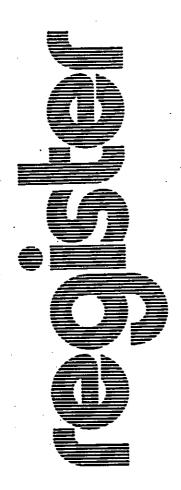
- 1. Concrete Form Work 14 Tasks
- 2. Framing 13 Tasks
- 3. Exterior Finish 8 Tasks
- 4. Interior Finish 12 Tasks
- 5. Interior Systems 14 Tasks
- 6. Supplemental Skill Areas 9 Tasks
- 7. Millwright Basics 13 Tasks
- 8. Millwright Intermediate 18 Tasks
- 9. Millwright Advanced 18 Tasks
- 10. Lathing 12 Tasks
- 11. Welding, Cutting & Burning 14 Tasks
- 12. Pile Driving 14 Tasks

An apprentice must complete at least 70% of each module in order to advance to the next module.

# APPENDIX D

FEDERAL AND STATE

APPRENTICESHIP STANDARDS



FRIDAY, FEBRUARY 18, 1977
PART II



# DEPARTMENT OF LABOR

Office of the Secretary



APPRENTICESHIP PROGRAMS

Labor Standards for Registration

#### Title 29-Labor

SUBTITLE A-OFFICE OF THE SECRETARY OF LABOR

PART 29—LABOR STANDARDS FOR THE REGISTRATION OF APPRENTICESHIP PROGRAMS

#### Policies and Procedures

On Tuesday, October 19, 1976, the Department of Labor published in the FEDERAL REGISTER (41 FR 46148) proposed registration standards for apprenticeship programs. These standards, in the form of the addition of a new Part 29 to 29 CFR subtitle A, were promulgated pursuant to the authority of section 1 of the National Apprenticeship Act of 1937 (29 U.S.C. 50), Reorganization Plan No. 14 of 1950 (64 Stat. 1267; 3 CFR 1949-53 Comp., p. 1007), the Copeland Act (40 U.S.C. 276c), and 5 U.S.C. 301.

A revised version of the proposed standards was issued in 1975 and published at 40 FR 11340 (3-10-75). Comments to this initial proposed rulemaking. were considered at length by the Federal Committee on Apprenticeship and by the Department of Labor. This process resulted in the issuance of the proposed rulemaking on October 19, 1976. The Department invited interested persons to submit written views and comments before November 22, 1976, concerning the proposal, and numerous responses were received. The Department has studied these comments carefully and several editorial and clarifying changes have been incorporated into the regulation. However, Part 29, which is published as final today, is basically the same as the proposal of October 19.

This document was prepared under the direction of Hugh C. Murphy, Administrator, Bureau of Apprenticeship and Training. For further information about this document, contact:

James P. Mitchell, Deputy Administrator, Bureau of Apprenticeship and Training, Employment and Training Administration, Room 5000, Patrick Henry Building, Washington, D.C. 20213. Telephone No. 202– 376–6585.

This new part sets out labor standards, policies and procedures relating to the registration, cancellation and deregistration of apprenticeship programs and of apprenticeship agreements by the Bureau of Apprenticeship and Training (BAT), the recognition of a State Apprenticeship Council or Agency (SAC) as the appropriate agency for registering local apprenticeship programs for certain Federal purposes, and the derecognition of a SAC.

Those provisions which caused significant comment are as follows:

1. In § 29.2, Definitions, the definition of "Federal purposes" in paragraph (k) was unclear to several persons. The definition in this section is very broad. However, those Federal purposes which this part affects are described in § 29.3(a), which reads as follows: "Eligibility for various Federal purposes is conditioned upon a program's conformity with apprenticeship program standards pub-

lished by the Secretary of Labor in this part. For a program to be determined by the Secretary of Labor as being in conformity with these published standards the program must be registered with the Bureau or registered with and/or approved by a State Apprenticeship Agency or Council recognized by the Bureau. Such determination by the Secretary is made only by such registration." Examples of such Federal purposes are the Davis-Bacon Act and the Service Contract Act.

2. In § 29.3, Eligibility and procedure for Bureau registration of a program. some persons read paragraph. (h) as being applicable to "unilateral" grams (i.e., to programs sponsored by employers not having a collective bargaining agreement with a union). The text makes it quite clear that paragraph (h) applies only to those potential sponsors who are parties to an existing collective bargaining agreement and then only in very limited circumstances. Paragraph (i) underscores this point; it states that where an employer or group of employers wishes to register an apprenticeship program and there is no existing collective bargaining agreement. the employer or group of employers are not required to deal with a union.

3. In § 29.4, Criteria for apprenticeable occupation, paragraph (c) states that an apprenticeable "involves occupation manual, mechanical or technical skills and knowledge which require a minimum of 2,000 hours of on-the-job work experience." Several persons had the impression that the Bureau of Apprenticeship and Training would allow almost any presently-recognized apprenticeable occupation to be registered as long as it met a minimum standard of 2,000 hours of on-the-job experience. This is not the intent of the Bureau of Apprenticeship and Training, nor does the paragraph when read in connection with the rest of this part-particularly § 29.5, Standards of apprenticeship-allow such an interpretation. Although the Bureau of Apprenticeship and Training has recognized only a handful of occupations having a minimum requirement of 2,000 hours of on-the-job experience, as well as related instruction to supplement this work experience, the Department believes other such occupations may exist. By setting 2,000 hours of on-the-job work experience as the minimum criterion, the Department feels it will be better able to fulfill its responsibility under the Fitzgerald Act to promote apprenticeship.

4. In § 29.5, Standards of apprenticeship, a number of changes have been made.

Paragraph (b) (4) has been changed to emphasize that plans of self-study will not be automatically approved. Rather, each such proposed plan will be considered on its merits by the Burcau of Apprenticeship and Training, as will as all other forms of related training, before approval is given to a program.

Paragraph (b) (7) has been amended to include safety as one of the factors

to be weighed by the Bureau of Apprenticeship and Training when it considers the proposed ratio of apprentices to journeymen.

Paragraph (b) (10) has been revised as follows (omitted words are in brackets; added words are italicized): "The Irequired minimum qualifications required by a sponsor for persons entering [an] the apprenticeship program, with an eligible starting age not less than 16 years;"

Paragraph (b) (14) has been revised by adding the words in italics: "Assurance of qualified training personnel and adequate supervision on the job,"

5. In § 29.12(a), Recognition of State agencies, the language of paragraph (a) has been revised to clarify the legal effect of the Secretary's recognition of a State Apprenticeship Council, Paragraph (a) now reads: "(a) The Secretary's recognition of a State Apprenticeship Agency or Council (SAC) gives the SAC the authority to determine whether an apprenticeship program conforms with the Secretary's published standards and the program is, therefore, eligible for those Federal purposes which require such a determination by the Secretary. Such recognition of a SAC shall be accorded by the Secretary upon submission and approval of the following:"

6. In § 29.12, several commenters objected to the language of paragraph (b) (8). This paragraph requires the SAC to "provide that apprenticeship programs and standards of employers and unions in other than the building and construction industry, which jointly form a sponsoring entity on a multistate basis and are registered pursuant to all requirements of this part by any recognized State Apprenticeship Agency/Council or by the Bureau, shall be accorded registration or approval reciprocity by any other State Apprenticeship Agency/Council or office of the Bureau if such reciprocity is requested by the sponsoring entity."

This provision was approved without dissent by the Federal Committee on Apprenticeship on September 8, 1976. It was the intent of the Committee to simplify the problems experienced by a relatively few number of apprenticeship programs. None of these programs are in the construction occupations. Rather the paragraph applies to those programs which are operated by large, industrial companies such as General Motors, Ford, Alco, etc. in conjunction with the locals of several large international unions.

The national standards for these programs are developed by the national office of the joint apprenticeship committee of the industry, in conjunction with the national staff of the Bureau of Apprenticeship and Training. The Department of Labor approves and publishes these standards. The local joint apprenticeship committee ordinarily adopts the approved national pattern standards without change, except for such local matters as those involving wage rates and affirmative action goals. The local programs, which are administered jointly by the employer and the union, are situated in

large plants with a relatively stable work force employed on a year-round basis. Hence, these programs differ from the typical construction employer who operates on a multistate basis.

The construction industry employs a mobile work force primarily in seasonal jobs. In construction programs, because of the seasonality of construction work, the apprentice's on-the-job training will usually be interrupted several times during the course of his/her apprenticeship and the supervision will be provided by several employers. In multistate operations, it may be necessary to provide related instruction at several places.

In the non-construction programs which this paragraph will affect, the typical apprentice will be employed year-round at the same site by the same employer during the entire term of his/her apprenticeship, and will receive on-the-job training and supervision from the same employer. Although related training may not be conducted at the worksite, it will ordinarily be conducted at the same location throughout the entire term of the individual's apprenticeship.

The Department believes it is reasonable to make a distinction between apprenticeship programs in the construction industry and those in other industries because of the differences mentioned above. These differences have an effect on what factors are necessary to insure a proper apprenticeship program in a particular craft.

The Department believes it is reasonable to draw a distinction between those multistate non-construction employers who conduct an apprenticeship program jointly with a union and those who conduct a unilateral apprenticeship program. The local programs, in practice, adopt the occupation's national pattern standards which have been developed by the occupation's national joint apprenticeship committee in cooperation with the national office of BAT and published by the Department.

The program is administered not by the employer alone but by the local joint apprenticeship committee (JAC) composed of both employer and union representatives. These two elements have both mutual and conflicting interests in assuring that the apprenticeship program is properly operated. The result of this tension of interests is more likely to result in a proper training program than would be the case in a program operated unilaterally.

Because of the stable year-round work force at the worksite, the journeymen are able to reach an informed opinion on the quality of the apprenticeship program. Each of the journeymen pays a percentage of his/her wage for the operation of the program. These circumstances increase the likelihood that complaints about deficiencies in the program, if not corrected by the JAC, will reach the registration agency which can take corrective action.

7. In \$29.12(c), language has been added to make clear that currently-recognized State Apprenticeship Agencies

and State Apprenticeship Councils retain their recognition during the 120-day period after the effective date of this part, as well as during any extension period granted by the Administrator.

8. Several persons believed that the requirements contained throughout § 29.12 represent an unwarranted intrusion of Federal control into the operations of the SACs. The Department believes that this conclusion is not correct.

As far as the Department knows, the recognized SACs are already in substantial conformity with the minimum standards set forth in this section, with the exception of paragraphs (b)(8) and (b)(10), which have been addressed earlier. Where they are not, paragraph (c) affords the State a 120-day period within which to conform. An extension of time may be granted by the Administrator of the Bureau for good cause.

It does not seem to the Department that it will be an undue hardship for the SACs to conform to the minimal requirements set forth in this part or to provide to the Department the information required by § 29.12(a), since recognition by the Secretary has important economic effects (as in the operation of the Davis-Bacon Act and the Service Contract Act) and important effects in promoting and improving the apprenticeship system. For these reasons it seems reasonable to the Department that the Secretary have documentary evidence that a recognized State agency is conforming to the minimum standards set forth in this part.

Some persons have read § 29.12(a) (5) in a manner which does not appear justified by the text. It requires a SAC to submit to the Bureau "a description of policies and operating procedures which depart from or impose requirements in addition to those prescribed in this part." While the Bureau has the right to approve or disapprove such variations, the purpose of this provision is not to enable the Bureau to control SACs or to dictate policies and procedures. Rather, it allows the Secretary to be informed of the policies and procedures of the SACs to which the Secretary has accorded recognition. The Department can then make its own judgment on whether these policies and procedures conflict with the requirements of this part.

- 9. Finally, some persons expressed reservations about the hearing procedures that are outlined in these regulations, primarily in § 29.9. Specifically, hearings are called for in the following circumstances:
- (a) The deregistration of Bureauregistered programs (§ 29.7);
- (b) Denials of a State agency's application for Bureau recognition (§ 29.12); and
- (c) Withdrawal of Bureau recognition of a State Apprenticeship Agency or Council (§ 29.13). These hearings are available to the aggrieved parties specified in the respective sections, when such aggrieved parties have taken the steps required to trigger their hearing rights.

The Department has adopted the hearing procedures used in this part for a number of reasons. First: The hearing provisions are sound from a standpoint of due process and conform to well-set tled principles of administrative law. Section 29.9 allows for the appointment of an administrative law judge. Moreover, the hearing provides a forum where both sides, in an adversary setting, may present and defend evidence.

Second: The hearing provisions in this part are virtually identical to those of 29 CFR Part 30, relating to Equal Opportunity in Apprenticeship. The Department is not aware of any serious complaints about this procedure. It is anticipated that hearings under Part 29 will be infrequent. Under these circumstances, it does not seem feasible to establish a separate appeals mechanism.

Accordingly, Title 29 of the Code of Federal Regulations is amended, effective March 21, 1977 by adding the following new Part 29:

- Sec. 29.1 Purpose and scope.
- 29 2 Definitions.
- 29.3 Eligibility and procedure for Bureau registration of a program.
- Sec.
  29.4 Criteria for apprenticeable occupations,
- 29.5 Standards of apprenticeship.
- 29.6 Apprenticeship agreement.
- 29.7 Deregistration of Bureau-registered program.
- 29.8 Reinstatement of program registra-
- 29.9 Hearings.
- 29.10 Limitations.
- 29.11 Complaints.
- 29.12 Recognition of State agencies.
- 29.13 Derecognition of State agencies.

AUTHORITY: Sec. 1, 50 Stat. 664, as amended (29 U.S.C. 50; 40 U.S.C. 276c; 5 U.S.C. 301); Reorganization Plan No. 14 of 1950, 64 Stat. 1267 (5 U.S.C. App., p. 534).

#### § 29.1 Purpose and scope.

- (a) The National Apprenticeship Act of 1937, section 1 (29 U.S.C. 50), authorizes and directs the Secretary of Labor "to formulate and promote the furtherance of labor standards necessary to safeguard the welfare of apprentices, to extend the application of such standards by encouraging the inclusion thereof in contracts of apprenticeship, to bring together employers and labor for the formulation of programs of apprenticeship, to cooperate with State agencies engaged in the formulation and promotion of standards of apprenticeship, and to cooperate with the Office of Education under the Department of Health, Education, and Welfare \* \* "." Section 2 of the Act authorizes the Secretary of Labor to "publish information relating to existing and proposed labor standards of apprenticeship," and to "appoint national advisory committees \* U.S.C. 50a).
- (b) The purpose of this part is to set forth labor standards to safeguard the welfare of apprentices, and to extend the application of such standards by pre-

scribing policies and procedures concerning the registration, for certain Federal purposes, of acceptable apprenticeship programs with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training. These labor standards, policies and procedures cover the registration, cancellation and deregistration of apprenticeship programs and of apprenticeship agreements; the recognition of a State agency as the appropriate agency for registering local apprenticeship programs for certain Federal purposes; and matters relating thereto.

(c) For further information about this Part 29, contact: Deputy Administrator. Bureau of Apprenticeship and Training. Employment and Training Administration, Room 5000, Patrick Henry Building. Washington, D.C. 20213, Telephone number (202) 376-6585.

#### § 29.2 Definitions.

As used in this part:

(a) "Department" shall mean the U.S. Department of Labor.

(b) "Secretary" shall mean the Secretary of Labor or any person specifically designated by him.

(c) "Bureau" shall mean the Bureau of Apprenticeship and Training, Employment and Training Administration.

(d) "Administrator" shall mean the Administrator of the Bureau of Apprenticeship and Training, or any person specifically designated by him.

(e) "Apprentice" shall mean a worker at least 16 years of age, except where a higher minimum age standard is otherwise fixed by law, who is employed to learn a skilled trade as defined in § 29.4 under standards of apprenticeship fulfilling the requirements of § 29.5

filling the requirements of § 29.5.

(f) "Apprenticeship program" shall mean a plan containing all terms and conditions for the qualification, recruitment, selection, employment and training of apprentices, including such matters as the requirement for a written apprenticeship agreement.

(g) "Sponsor" shall mean any person, association, committee, or organization operating an apprenticeship program and in whose name the program is (or is to be) registered or approved.

(h) "Employer" shall mean any person or organization employing an apprentice whether or not such person or organization is a party to an apprenticeship agreement with the apprentice.

(i) "Apprenticeship committee" shall mean those persons designated by the sponsor to act for it in the administration of the program. A committee may be "joint," i.e., it is composed of an equal number of representatives of the employer(s) and of the employees represented by a bona fide collective bargaining agent(s) and has been established to conduct, operate, or administer an apprenticeship program and enter into apprenticeship agreements with apprentices. A committee may be "unilateral" or "non-joint" and shall mean a program sponsor in which a bona fide col-

lective bargaining agent is not a participant.

- (j) "Apprenticeship agreement" shall mean a written agreement between an apprentice and either his employer, or an apprenticeship committee acting as agent for employer(s), which agreement contains the terms and conditions of the employment and training of the apprentice.
- (k) "Federal purposes" includes any Federal contract, grant, agreement or arrangement dealing with apprentice-ship; and any Federal financial or other assistance, benefit, privilege, contribution, allowance, exemption, preference or right pertaining to apprenticeship.
- (1) "Registration of an apprenticeship program" shall mean the acceptance and recording of such program by the Burcau of Apprenticeship and Training, or registration and/or approval by a recognized State Apprenticeship Agency, as meeting the basic standards and requirements of the Department for approval of such program for Federal purposes. Approval is evidenced by a Certificate of Registration or other written indicia.
- (m) "Registration of an apprenticeship agreement" shall mean the acceptance and recording thereof by the Bureau or a recognized State Apprenticeship Agency as evidence of the participation of the apprentice in a particular registered apprenticeship program.
- (n) "Certification" shall mean written approval by the Bureau of:
- (1) A set of apprenticeship standards developed by a national committee or organization, joint or unilateral, for policy or guideline use by local affiliates, as substantially conforming to the standards of apprenticeship set forth in § 29.5; or
- (2) An individual as eligible for probationary employment as an apprentice under a registered apprenticeship program.
- (o) "Recognized State Apprenticeship Agency" or "recognized State Apprenticeship Council" shall mean an organization approved by the Bureau as an agency or council which has been properly constituted under an acceptable law or Executive order, and has been approved by the Bureau as the appropriate body for State registration and/or approval of local apprenticeship programs and agreements for Federal purposes.
- (p) "State" shall mean any of the 50 States of the United States, the District of Columbia, or any territory or possession of the United States.
- (q) "Related instruction" shall mean an organized and systematic form of instruction designed to provide the apprentice with knowledge of the theoretical and technical subjects related to his/ her trade.
- (r) "Cancellation" shall mean the termination of the registration or approval status of a program at the request of the sponsor or termination of an apprentice-ship agreement at the request of the apprentice.

- (s) "Registration agency" shall mean the Bureau or a recognized State Apprenticeship Agency.
- § 29.3 Eligibility and procedure for Bureau registration of a program.
- (a) Eligibility for various Federal purposes is conditioned upon a program's conformity with apprenticeship program standards published by the Secretary of Labor in this part. For a program to be determined by the Secretary of Labor as being in conformity with these published standards the program must be registered with the Bureau or registered with and/or approved by a State Apprenticeship Agency or Council recognized by the Bureau. Such determination by the Secretary is made only by such registration.
- (b) No apprenticeship program or agreement shall be eligible for Bureau registration unless (1) it is in conformity with the requirements of this part and the training is in an apprenticeable occupation having the characteristics set forth in § 29.4 herein, and (2) it is in conformity with the requirements of the Department's regulation on "Equal Employment Opportunity in Apprenticeship and Training" set forth in 29 CFR Part 30, as amended.
- (c) Except as provided under paragraph (d) of this section, apprentices must be individually registered under a registered program. Such registration may be effected:

(1) By filing copies of each apprenticeship agreement; or

- (2) Subject to prior Bureau approval, by filing a master copy of such agreement followed by a listing of the name, and other required data, of each individual when apprenticed.
- (d) The names of persons in their first 90 days of probationary employment as an apprentice under an apprenticeship program registered by the Bureau or a recognized State Apprenticeship Agency, if not individually registered under such program, shall be submitted immediately after employment to the Bureau or State Apprenticeship Agency for certification to establish the apprentice as eligible for such probationary employment.

(e) The appropriate registration office must be promptly notified of the cancellation, suspension, or termination of any apprenticeship agreement, with cause for same, and of apprenticeship completions.

- (f) Operating apprenticeship programs when approved by the Bureau shall be accorded registration evidenced by a Certificate of Registration. Programs approved by recognized State Apprenticeship Agencies shall be accorded registration and/or approval evidenced by a similar certificate or other written indicia. When approved by the Bureau, national apprenticeship standards for policy or guideline use shall be accorded certification, evidenced by a certificate attesting to the Bureau's approval.
- (g) Any modification(s) or change(s) to registered or certified programs shall be promptly submitted to the registration office and, if approved, shall be recorded and acknowledged as an amendment to such program.

(h) Under a program proposed for registration by an employer or employers' association, where the standards, collective bargaining agreement or other instrument, provides for participation by a union in any manner in the operation of the substantive matters of the apprenticeship program, and such participation is exercised, written acknowledgement of union agreement or "no objecto the registration is required. tion" Where no such participation is evidenced and practiced, the employer or employers' association shall simultaneously furnish to the union, if any, which is the collective bargaining agent of the employees to be trained, a copy of its application for registration and of the apprenticeship program. The registration agency shall provide a reasonable time period of not less than 30 days nor more than 60 days for receipt of union comments, if any, before final action on the approval.

for registration application and/or (i) Where the employees to be trained have no collective bargaining agent, an apprenticeship program may be proposed for registration by an employer or group

of employers.

#### § 29.4 Criteria for apprenticeable occupations.

An apprenticeable occupation is a skilled trade which possesses all of the following characteristics:

(a) It is customarily learned in a practical way through a structured, systematic program of on-the-job supervised training.

(b) It is clearly identified and comrecognized throughout monly industry.

- (c) It involves manual, mechanical or technical skills and knowledge which require a minimum of 2,000 hours of onthe-job work experience.
- (d) It requires related instruction to supplement the on-the-job training.

#### § 29.5 Stundards of apprenticeship.

An apprenticeship program, to be eligible for registration/approval by a registration/approval agency, shall conform to the following standards:

- (a) The program is an organized, written plan embodying the terms and conditions of employment, training, and supervision of one or more apprentices in the apprenticeable occupation, as defined in this part, and subscribed to by a sponsor who has undertaken to carry out the apprentice training program.
- (b) The program standards contain the equal opportunity pledge prescribed in 29 CFR 30.3(b) and, when applicable, an affirmative action plan in accordance with 29 CFR 30.4, a selection method authorized in 29 CFR 30.5, or similar requirements expressed in a State Plan for Equal Employment Opportunity in Apprenticeship adopted pursuant to 29 CFR Part 30 and approved by the Department, and provisions concerning the
- (1) The employment and training of the apprentice in a skilled trade;

(2) A term of apprenticeship, not less than 2,000 hours of work experience, consistent with training requirements as established by industry practice;

(3) An outline of the work processes in which the apprentice will receive supervised work experience and training on the job, and the allocation of the approximate time to be spent in each

major process;

(4) Provision for organized, related and supplemental instruction in technical subjects related to the trade. A minimum of 144 hours for each year of apprenticeship is recommended. Such instruction may be given in a classroom through trade, industrial courses or by through trade, industrial or correspondence courses of equivalent value, or other forms of self-study approved by the registration/approval agency;

(5) A progressively increasing schedule of wages to be paid the apprentice consistent with the skill acquired. The entry wage shall be not less than the minimum wage prescribed by the Fair Labor Standards Act, where applicable, unless a higher wage is required by other applicable Federal law, State law, respective regulations, or by collective bargain-

ing agreement:

(6) Periodic review and evaluation of the apprentice's progress in job performance and related instruction; and the maintenance of appropriate progress records;

(7) The numeric ratio of apprentices to journeymen consistent with proper supervision, training, safety, and continuity of employment, and applicable provisions in collective bargaining agreements, except where such ratios are expressly prohibited by the collective bargaining agreements. The ratio language shall be specific and clear as to application in terms of jobsite, work force, de-

partment or plant: (8) A probationary period reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of apprentice-

ship:

(9) Adequate and safe equipment and facilities for training and supervision, and safety training for apprentices on the job and in related instruction;

- (10) The minimum qualifications required by a sponsor for persons entering the apprenticeship program, with an eligible starting age not less than 16
- (11) The placement of an apprentice under a written apprenticeship agreement as required by the State apprenticeship law and regulation, or the Bureau where no such State law or regulation exists. The agreement shall directly, or by reference, incorporate the standards of the program as part of the agreement;
- (12) The granting of advanced standing or credit for previously acquired experience, training, or skills for all applicants equally, with commensurate wages for any progression step so granted;
- (13) Transfer of employer's training obligation when the employer is unable

to fulfill his obligation under the apprenticeship agreement to another employer under the same program with consent of the apprentice and apprenticeship committee or program sponsor;

(14) Assurance of qualified training personnel and adequate supervision on

the job:

(15) Recognition for successful completion of apprenticeship evidenced by an appropriate certificate;

(16) Identification of the registration agency;

(17) Provision for the registration, cancellation and deregistration of the program; and requirement for the prompt submission of any modification

or amendment thereto:

(18) Provision for registration of apprenticeship agreements, modifications, and amendments; notice to the registration office of persons who have successfully completed apprenticeship programs; and notice of cancellations, suspensions and terminations of apprenticeship agreements and causes therefor;

(19) Authority for the termination of an apprenticeship agreement during the probationary period by either party with-

out stated cause:

- (20) A statement that the program will be conducted, operated and administered in conformity with applicable provisions of 29 CFR Part 30, as amended, or a State EEO in apprenticeship plan adopted pursuant to 29 CFR Part 30 and approved by the Department;
- (21) Name and address of the appropriate authority under the program to receive, process and make disposition of complaints:
- (22) Recording and maintenance of all records concerning apprenticeship as may be required by the Bureau or recognized State Apprenticeship Agency and other applicable law.

#### § 29.6 Apprenticeship agreement.

The apprenticeship agreement shall contain explicitly or by reference:

- (a) Names and signatures of the contracting parties (apprentice, and the program sponsor or employer), and the signature of a parent or guardian if the apprentice is a minor.
- (b) The date of birth of apprentice. (c) Name and address of the program sponsor and registration agency.
- (d) A statement of the trade or craft in which the apprentice is to be trained. and the beginning date and term (duration) of apprenticeship.
- (e) A statement showing (1) the number of hours to be spent by the apprentice in work on the job, and (2) the number of hours to be spent in related and supplemental instruction which is recommended to be not less than 144 hours per year.
- (f) A statement setting forth a schedule of the work processes in the trade or industry divisions in which the apprentice is to be trained and the approximate time to be spent at each process.
- (g) A statement of the graduated scale of wages to be paid the apprentice and

shall be compensated.

(h) Statements providing:

(1) For a specific period of probation during which the apprenticeship agreement may be terminated by either party to the agreement upon written notice to the registration agency;

(2) That, after the probationary pe-

- riod, the agreement may be cancelled at the request of the apprentice, or may be suspended, cancelled, or terminated by the sponsor, for good cause, with due notice to the apprentice and a reasonable opportunity for corrective action, and with written notice to the apprentice and to the registration agency of the final action taken.
- (i) A reference incorporating as part of the agreement the standards of the apprenticeship program as it exists on the date of the agreement and as it may be amended during the period of the agreement.

(j) A statement that the apprentice will be accorded equal opportunity in all phases of apprenticeship employment and training, without discrimination because of race, color, religion, national origin, or sex.

(k) Name and address of the appropriate authority, if any, designated under the program to receive, process and make disposition of controversies or differences arising out of the apprenticeship agreement when the controversies or differences cannot be adjusted locally or resolved in accordance with the established trade procedure or applicable collective bargaining provisions.

#### § 29.7 Deregistration of Bureau-registered program.

Deregistration of a program may be effected upon the voluntary action of the sponsor by a request for cancellation of the registration, or upon reasonable cause, by the Bureau instituting formal deregistration proceedings in accordance with the provisions of this part.

(a) Request by sponsor. The registration officer may cancel the registration of an apprenticeship program by written acknowledgement of such request stating, but not limited to, the follow-

ing matters: (1) The registration is canceled at

sponsor's request, and effective date thereof:

- (2) That, within 15 days of the date of the acknowledgment, the sponsor shall notify all apprentices of such cancellation and the effective date; that such cancellation automatically deprives the apprentice of his/her individual registration; and that the deregistration of the program removes the apprentice from coverage for Federal purposes which require the Secretary of Labor's approval of an apprenticeship program.
- (b) Formal deregistration.—(1) Reasonable cause. Deregistration proceedings may be undertaken when the apprenticeship program is not conducted, operated, and administered in accordance with the registered provisions or the requirements of this part, except that deregistration proceedings for violation of equal oppor-

whether or not the required school time tunity requirements shall be processed in accordance with the provisions under 29 CFR Part 30, as amended;

(2) Where it appears the program is not being operated in accordance with the registered standards or with requirements of this part, the registration officer shall so notify the program sponsor in writing:

(3) The notice shall (i) be sent by registered or certified mail, with return receipt requested; (ii) state the shortcoming(s) and the remedy required; and (iii) state that a determination of reasonable cause for deregistration will be made unless corrective action is effected within 30 days;

(4) Upon request by the sponsor for good cause, the 30-day term may be extended for another 30 days. During the period for correction, the sponsor shall be assisted in every reasonable way to

achieve conformity; (5) If the required correction is not effected within the allotted time, the registration officer shall send a notice to the sponsor, by registered or certified mail, return receipt requested, stating the following:

(i) The notice is sent pursuant to this

subsection;

(ii) Certain deficiencies (stating them) were called to sponsor's attention and remedial measures requested, with dates of such occasions and letters; and that the sponsor has failed or refused to effect correction:

(iii) Based upon the stated deficiencies and failure of remedy, a determination of reasonable cause has been made and the program may be deregistered unless, within 15 days of the receipt of this notice, the sponsor requests a hearing;

(iv) If a request for a hearing is not made, the entire matter will be submitted to the Administrator, BAT, for a decision on the record with respect to deregistration.

- (6) If the sponsor has not requested a hearing, the registration officer shall transmit to the Administrator, BAT, a report containing all pertinent facts and circumstances concerning the nonconformity, including the findings and recommendation for deregistration, and copies of all relevant documents and records. Statements concerning interviews. meetings and conferences shall include the time, date, place, and persons present. The Administrator shall make a final order on the basis of the record before
- (7) If the sponsor requests a hearing, the registration officer shall transmit to the Secretary, through the Administrator, a report containing all the data listed in paragraph (6) above. The Secretary shall convene a hearing in accordance with § 29.9; and shall make a final decision on the basis of the record before him including the proposed findings and recommended decision of the hearing officer.
- (8) At his discretion, the Secretary may allow the sponsor a reasonable time to achieve voluntary corrective action. If the Secretary's decision is that the apprenticeship program is not operating in

accordance with the registered provisions or requirements of this part, the apprenticeship program shall be deregistered. In each case in which reregistration is ordered, the Secretary shall make public notice of the order and shall notify the sponsor.

(9) Every order of deregistration shall contain a provision that the sponsor shall, within 15 days of the effective date of the order, notify all registered apprentices of the deregistration of the program; the effective date thereof; that such cancellation automatically deprives the apprentice of his/her individual registration; and that the deregistration removes the apprentice from coverage for Federal purposes which require the Secretary of Labor's approval of an apprenticeship program.

### § 29.8 Reinstatement of program regis-

Any apprenticeship program deregistered pursuant to this part may be reinstated upon presentation of adequate evidence that the apprenticeship program is operating in accordance with this part. Such evidence shall be presented to the Administrator, BAT, if the sponsor had not requested a hearing, or to the Secretary, if an order of deregistration was entered pursuant to a hearing.

#### § 29.9 Hearings.

- (a) Within 10 days of his receipt of a request for a hearing, the Secretary shall designate a hearing officer. The hearing officer shall give reasonable notice of such hearing by registered mail, return receipt requested, to the appropriate sponsor. Such notice shall include (1) a reasonable time and place of hearing. (2) a statement of the provisions of this part pursuant to which the hearing is to be held, and (3) a concise statement of the matters pursuant to which the action forming the basis of the hearing is proposed to be taken.
- (b) The hearing officer shall regulate the course of the hearing. Hearings shall be informally conducted. Every party shall have the right to counsel, and a fair opportunity to present his/her case. including such cross-examination as may be appropriate in the circumstances. Hearing officers shall make their proposed findings and recommended decisions to the Secretary upon the basis of the record before them.

#### § 29.10 Limitations.

Nothing in this part or in any apprenticeship agreement shall operate to invalidate-

- (a) Any apprenticeship provision in any collective bargaining agreement between employers and employees establising higher apprenticeship standards;
- (b) Any special provision for veterans, minority persons or females in the standards, apprentice qualifications or operation of the program, or in the apprenticeship agreement, which is not otherwise prohibited by law, Executive order, or authorized regulation.

#### § 29.11 Complaints.

(a) This section is not applicable to any complaint concerning discrimination or other equal opportunity matters; all such complaints shall be submitted, processed and resolved in accordance with applicable provisions in 29 CFR Part 30, as amended, or applicable provisions of a State Plan for Equal Employment Opportunity in Apprenticeship adopted pursuant to 29 CFR Part 30 and approved by the Department.

(b) Except for matters described in paragraph (a) of this section, any controversy or difference arising under an apprenticeship agreement which cannot be adjusted locally and which is not covered by a collective bargaining agreement, may be submitted by an apprentice, or his/her authorized representative, to the appropriate registration authority, either Federal or State, which has registered and/or approved the program in which the apprentice is enrolled, for review. Matters covered by a collective bargaining agreement are not subject to such review.

(c) The complaint, in writing and signed by the complainant, or authorized representative, shall be submitted within 60 days of the final local decision. It shall set forth the specific matter(s) complained of, together with all relevant facts and circumstances. Copies of all pertinent documents and correspondence shall accompany the complaint.

(d) The Bureau or recognized State Apprenticeship Agency, as appropriate, shall render an opinion within 90 days after receipt of the complaint, based upon such investigation of the matters submitted as may be found necessary, and the record before it. During the 90-day period, the Bureau or State agency shall make reasonable efforts to effect a satisfactory resolution between the parties involved. If so resolved, the parties shall be notified that the case is closed. Where an opinion is rendered, copies of same shall be sent to all interested parties.

(e) Nothing in this section shall be construed to require an apprentice to use the review procedure set forth in this section.

(f) A State Apprenticeship Agency may adopt a complaint review procedure differing in detail from that given in this section provided it is proposed and has been approved in the recognition of the State Apprenticeship Agency accorded by the Bureau.

#### § 29.12 Recognition of State agencies.

(a) The Secretary's recognition of a State Apprenticeship Agency or Council (SAC) gives the SAC the authority to determine whether an apprenticeship program conforms with the Secretary's published standards and the program is, therefore, eligible for those Federal purposes which require such a determination by the Secretary. Such recognition of a SAC shall be accorded by the Secretary upon submission and approval of the following:

(1) An acceptable State apprenticeship law (or Executive order), and regulations adopted pursuant thereto:

(2) Acceptable composition of the State Apprenticeship Council (SAC);

(3) An acceptable State Plan for Equal Employment Opportunity in Apprentice-ship:

(4) A description of the basic standards, criteria, and requirements for program registration and/or approval; and

(5) A description of policies and operating procedures which depart from or impose requirements in addition to those prescribed in this part.

(b) Basic requirements. Generally the basic requirements under the matters covered in paragraph (a) of this section shall be in conformity with applicable requirements as set forth in this part. Acceptable State provisions shall:

(1) Establish the apprenticeship agency in (i) the State Department of Labor, or (ii) in that agency of State government having jurisdiction of laws and regulations governing wages, hours, and working conditions, or (iii) that State agency presently recognized by the Bureau, with a State official empowered to direct the apprenticeship operation;

(2) Require that the State Apprenticeship Council be composed of persons familiar with apprenticeable occupations and an equal number of representatives of employer and of employee organizations and may include public members who shall not number in excess of the number named to represent either employer or employee organizations. Each representative so named shall have one vote. Ex officio members may be added to the council but they shall have no vote except where such members have a vote according to the established practice of a presently recognized council. If the State official who directs the apprenticeship operation is a member of the council, provision may be made for the official to have a tie-breaking vote;

(3) Clearly delineate the respective powers and duties of the State official and of the council;

(4) Clearly designate the officer or body authorized to register and deregister apprenticeship programs and agree-

ments

(5) Establish policies and procedures to promote equality of opportunity in apprenticeship programs pursuant to a State Plan for Equal Employment Opportunity in Apprenticeship which adopts and implements the requirements of 29 CFR Part 30, as amended, and to require apprenticeship programs to operate in conformity with such State Plan and 29 CFR Part 30, as amended;

(6) Prescribe the contents of apprenticeship agreements;

.(7) Limit the registration of apprenticeship programs to those providing training in "apprenticeable" occupations as defined in § 29.4;

(8) Provide that apprenticeship programs and standards of employers and unions in other than the building and construction industry, which jointly form a sponsoring entity on a multistate basis

and are registered pursuant to all requirements of this part by any recognized State Apprenticeship Agency/Council or by the Bureau, shall be accorded registration or approval rec'procity by any other State Apprenticeship Agency/Council or office of the Bureau if such reciprocity is requested by the sponsoring entity:

(9) Provide for the cancellation, deregistration and/or termination of approval of programs, and for temporary suspension, cancellation, deregistration and/or termination of approval of ap-

prenticeship agreements; and

(10) Provide that under a program proposed for registration by an employer or employers' association, and where the standards, collective bargaining agreement or other instrument provides for participation by a union in any manner in the operation of the substantive matters of the apprenticeship program, and such participation is exercised, written acknowledgement of union agreement or 'no objection" to the registration is required. Where no such participation is evidenced and practiced, the employer or employers' association shall simultaneously furnish to the union, if any, which is the collective bargaining agent of the employees to be trained, a copy of its application for registration and of the apprenticeship program. The State agency shall provide a reasonable time period of not less than 30 days nor more than 60 days for receipt of union comments, if any, before final action on the application for registration and/or approval.

(c) Application for recognition. A State Apprenticeship Agency/Council desiring recognition shall submit to the Administrator, BAT, the documentation specified in § 29.12(a) of this part. A currently recognized Agency/Council desiring continued recognition by the Bureau shall submit to the Administrator the documentation specified in § 29.12(a) of this part on or before July 18, 1977. An extension of time within which to comply with the requirements of this part may be granted by the Administrator for good cause upon written request by the State agency but the Administrator shall not extend the time for submission of the documentation required by § 29.12(a). The recognition of currently recognized Agencies/Councils shall continue until July 18, 1977 and during any extension period granted by the Administrator.

(d) Appeal from denial of recognition. The denial by the Administrator of a State agency's application for recognition under this part shall be in writing and shall set forth the reasons for the denial. The notice of denial shall be sent to the applicant by certified mail, return receipt requested. The applicant may appeal such a denial to the Secretary by mailing or otherwise furnishing to the Administrator, within 30 days of receipt of the denial, a notice of appeal addressed to the Secretary and setting forth the following items:

(1) A statement that the applicant appeals to the Secretary to reverse the

Administrator's decision to deny its application:

(2) The date of the Administrator's decision and the date the applicant received the decision:

(3) A summary of the reasons why the applicant believes that the Administrator's decision was incorrect;

(4) A copy of the application for recognition and subsequent modifications,

if any:

(5) A copy of the Administrator's decision of denial. Within 10 days of receipt of a notice of appeal, the Secretary shall assign an Administrative Law Judge to conduct hearings and to recommend findings of fact and conclusions of law. The proceedings shall be informal, witnesses shall be sworn, and the parties shall have the right to counsel and of cross-examination.

The Administrative Law Judge shall submit the recommendations and conclusions, together with the entire record to the Secretary for final decision. The Secretary shall make his final decision in writing within 30 days of the Administrative Law Judge's submission. The Secretary may make a decision granting recognition conditional upon the performance of one or more actions by the applicant. In the event of such a conditional decision, recognition shall not be effective until the applicant has submitted to the Secretary evidence that the required actions have been performed and the Secretary has communicated to the applicant in writing that he is satisfied with the evidence submitted.

- (e) State apprenticeship programs. (1) An apprenticeship program submitted for registration with a State Apprenticeship Agency recognized by the Bureau shall, for Federal purposes, be in conformity with the State apprenticeship law, regulations, and with the State Plan for Equal Employment Opportunity in Apprenticeship as submitted to and approved by the Bureau pursuant to 29 CFR 30.15, as amended;
- (2) In the event that a State Apprenticeship Agency is not recognized by the Bureau for Federal purposes, or that such recognition has been withdrawn, or if no State Apprenticeship Agency exists, registration with the Bureau may be requested. Such registration shall be granted if the program is conducted, administered and operated in accordance with the requirements of this part and the equal opportunity regulation in 29 CFR Part 30, as amended.

§ 29.13 Derecognition of State agencies.

The recognition for Federal purposes of a State Apprenticeship Agency or State Apprenticeship Council (hereinafter designated "respondent"), may be withdrawn for the failure to fulfill, or operate in conformity with, the requirements of this part. Derecognition proceedings for reasonable cause shall be instituted in accordance with the following:

- (a) Derecognition proceedings for failure to adopt or properly enforce a State Plan for Equal Employment Opportunity in Apprenticeship shall be processed in accordance with the procedures prescribed in 29 CFR 30.15.
- (b) For causes other than those under paragraph (a) above, the Bureau shall notify the respondent and appropriate State sponsors in writing, by certified mail, with return receipt requested. The notice shall set forth the following:
- (1) That reasonable cause exists to believe that the respondent has failed to fulfill or operate in conformity with the requirements of this part;
- (2) The specific areas of nonconformity;
- (3) The needed remedial measures; and
- (4) That the Bureau proposes to withdraw recognition for Federal purposes unless corrective action is taken, or a hearing request mailed, within 30 days of the receipt of the notice.
- (c) If, within the 30-day period, respondent:
- (1) Complies with the requirements, the Bureau shall so notify the respondent and State sponsors, and the case shall be closed;
- (2) Fails to comply or to request a hearing, the Bureau shall decide whether recognition should be withdrawn. If the decision is in the affirmative, the Administrator shall forward all pertinent data to the Secretary, together with the findings and recommendation. The Secretary shall make the final decision, based upon the record before him.
- (3) Requests a hearing, the Administrator shall forward the request to the Secretary, and the procedures under \$29.9 shall be followed, with notice thereof to the State apprenticeship sponsors.
- (d) If the Secretary determines to withdraw recognition for Federal purposes, he shall notify the respondent and

the State sponsors of such withdrawal and effect public notice of such withdrawal. The notice to the sponsors shall state that, 30 days after the date of the Secretary's order withdrawing recognition of the State agency, the Department shall cease to recognize, for Federal purposes, each apprenticeship program registered with the State agency unless, within that time, the State sponsor requests registration with the Bureau. The Bureau may grant the request for registration contingent upon its finding that the State apprenticeship program is operating in accordance with the requirements of this part and of 29 CFR Part 30, as amended. The Bureau shall make a finding on this issue within 30 days of receipt of the request. If the finding is in the negative, the State sponsor shall be notified in writing that the contingent Bureau registration has been revoked. If the finding is in the affirmative, the State sponsor shall be notified in writing that the contingent Bureau registration is made permanent.

(e) If the sponsor fails to request Bureau registration, or upon a finding of noncompliance pursuant to a contingent Bureau registration, the written notice to such State sponsor shall further advise the recipient that any actions or benefits applicable to recognition "for Federal purposes" are no longer available to participants in its apprenticeship program.

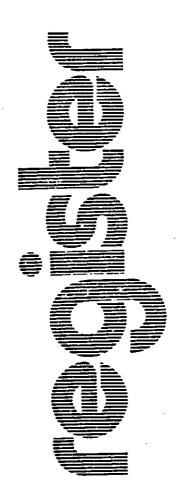
(f) Such notice shall also direct the State sponsor to notify, within 15 days, all its registered apprentices of the withdrawal of recognition for Federal purposes; the effective date thereof; and that such withdrawal removes the apprentice from coverage under any Federal provision applicable to his/her individual registration under a program recognized or registered by the Secretary of Labor for Federal purposes.

(g) A State Apprenticeship Agency or Council whose recognition has been withdrawn pursuant to this part may have its recognition reinstated upon presentation of adequate evidence that it has fulfilled, and is operating in accordance with, the requirements of this part.

Signed at Washington, D.C. this 15th day of February, 1977.

RAY MARSHALL, Secretary of Labor.

[PR Doc.77-5212 Filed 2-17-77;8:45 am]

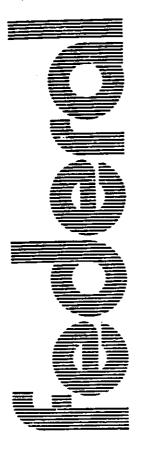


# FRIDAY, MAY 12, 1978 PART IV



# DEPARTMENT OF LABOR

Office of the Secretary



# EQUAL EMPLOYMENT OPPORTUNITY IN APPRENTICESHIP AND TRAINING

[4510-30]

Title 29—Labor

#### SUBTITLE A—OFFICE OF THE SECRETARY

#### PART 30-EQUAL EMPLOYMENT OP-PORTUNITY IN APPRENTICESHIP AND TRAINING

#### **Final Rule**

AGENCY: Department of Labor.

ACTION: Final rule.

SUMMARY: The regulation published today amends the Department of Labor's regulations concerning equal employment opportunity in apprenticeship and training to include specific provisions requiring affirmative action for women.

EFFECTIVE DATE: The regulations shall take effect June 12, 1978.

FOR FURTHER INFORMATION CONTACT:

James D. Henry, Associate Solicitor for Labor Relations and Civil Rights, Office of the Solicitor, 200 Constitution Avenue NW., Washington, D.C. 20210, 202-523-8222, of James P. Mitchell, Deputy Administrator, Bureau of Apprenticeship and Training, Patrick Henry Building, 601 D Street NW., Washington, D.C. 20212. 202-376-6488.

SUPPLEMENTARY INFORMATION: On September 30, 1977, the Office of the Secretary of Labor, U.S. Department of Labor, published in the FEDER-AL REGISTER (42 FR 52441) a proposal to amend 29 CFR Part 30 to require specific affirmative action steps, including goals and timetables, for women. The September 30 proposal provided that comments on the proposal would be received until November 14, 1977. Subsequently, the comment period was extended to November 30, 1977. As of January 3, 1978. 1,030 separate written comments had been received. More than half (579) of these comments favored the proposed amendment; 451 of the comments opposed it. Of the 1,030 comments, 144 were from apprenticeship committees: 114 from unions: 373 from individuals; 69 from government agencies; 118 from women's organizations; 100 from employees; and 112 from other organizations. Comments were received after January 3, 1978, although they are not included in the above count. Each submission has been thoroughly reviewed and each criticism and suggestion given careful consideration.

#### SUMMARY OF COMMENTS

1. Some of the comments opposed the proposed amendment because of the requirement of goals and time-

tables for women. These comments expressed the opinion that goals were the same as quotas and were illegal. Some of these comments expressed the view that the Department of Labor should withhold any action on final regulations until the U.S. Supreme Court has rendered its decision in The Regents of the University of California v. Allen Bakke. These comments maintained that the Department's final regulation would have to be consistent with this decision.

Some of the comments from those opposed to the use of goals suggested alternative means to accomplish affirmative action for women in apprenticeship. Alternatives suggested included the use of outreach programs for women, emphasis on recruitment of women, and the development of special programs to prepare women with basic skills required to enter appren-

ticeship programs.

2. Some of the comments opposed goals for women because of a belief that women as a class were unable to do the work of the skilled trades and/ or were not interested in doing such work. Some of these comments expressed the opinion that goals would require the hiring of unqualified people who would not be able to do the work and/or of people who were not sincerely interested in learning the trade.

3. Other comments were not opposed to the concept of goals for women but suggested that the proposed first-year goal for women in entering apprenticeship classes was unreasonable. They expressed the view that there were not enough women available who were able to do the work and/or interested in becoming apprentices to meet the

proposed goal.

Some of these commentors suggested alternative methods for establishing goals and timetables for women. Included in these suggestions were proposals to base the goal on current participation of women in the skilled trades, on the number of women interested in entering apprenticeships. and/or on the number of women who apply for entrance into apprenticeship programs. Some commentors suggested that the Department delay requiring goals for women for 2 years, requiring vigorous recruitment of women during the 2-year period. Goals would then be based on the number of women who demonstrated interest in apprenticeship during this 2-year period.

4. A few comments maintained that the availability of women interested in entering apprenticeships would vary from one region to another. These comments proposed that the Department take account of this and set goals on a regional rather than a nationwide basis.

5. Other comments from those opposed to the proposed amendment in-

cluded statements that the proposal was inflationary, that it was inappropriate during a time of high unemployment in the skilled trades, and that the time allowed for making the required changes in the sponsors' affirmative action plans was too short. In addition, some comments suggested that program sponsors be allowed to set minimum physical standards for entrance into their programs.

6. Most of the comments received from women's organizations, individuals, government agencies, and public interest organizations supported the proposed amendment. These comments stated that without the specified affirmative action requirements. especially the use of goals and timetables, very little would be accomplished in increasing the participation of women in apprenticeship programs.

7. A number of those who commented in favor of the proposed amendment objected to the use of the term 'qualified" modifying minorities or women in the section of the preamble entitled "Proposed Changes." These comments pointed out that the term is not used in the current regulation or the proposed amendment. They advocated as an alternative the use of the word "trainable," claiming that there was a possibility that biased program sponsors may use this language as an excuse to exclude women on the basis that they were not "qualified."

8. Others who favored the amendment generally suggested that the Department adopt the position that the ultimate goal for women in apprenticeship be work force parity, and that the goal be set at this level in 5 years.

9. Some of those favoring the amendment proposed that the use of priviate review panels in connection with complaints of discrimination be eliminated and/or that complainants be given an option to file their complaints with the Department.

10. Some proponents of the amendments suggested that the Bureau of Apprenticeship and Training be required to conduct compliance reviews

of programs annually.

11. A few organizations favoring the amendments suggested that the complaint procedure be changed in order to permit third-party complaints.

12. Some women's organizations and government agencies were concerned about the problem of double counting

minority women.

13. Other suggestions made by those who favored the amendments included the elimination of age limits, increased coordination between the Bureau of Apprenticeship and Training and the Office of Federal Contract Compliance Programs of the Department of Labor. and shortening of the time periods allowed program sponsors to come into compliance.

In the Discussion section below we will take up each of the issues listed

above as we discuss the amendment on a section-by-section basis.

#### BACKGROUND

Regulations published at 29 CFR Part 30 establish policies and procedures to promote equality of opportunity in apprenticeship programs registered with the U.S. Department of Labor or with recognized state apprenticeship agencies. The regulations prohibit discrimination based on race, color, religion, national origin or sex.

They also require the adoption of written affirmative action programs including the development of goals and timetables. But while the present regulations require the elimination of sex-based discrimination, they do not require that the written affirmative action plans cover women. Also, a sponsor currently is not required to establish and attain goals and timetables for women although goals and timetables are required for minorities.

Over the last several years the Department of Labor has received a number of requests to amend 29 CFR Part 30 to make the written affirmative action plan requirement, including goals and timetables, applicable to women. Most recently a group of organizations petitioned the Department of Labor pursuant to 5 U.S.C. 553(e) to initiate rulemaking proceedings to cover women in affirmative action plans relating to registered apprenticeship programs.

The Department of Labor has examined the status of women in apprenticeship programs and has concluded. based on their participation rate, that 29 CFR Part 30 should be amended to require that written affirmative action plans for apprenticeship programs cover women, including the establishment and implementation of goals and

timetables.

As the petition for rulemaking states:

The percentage of women in the civilian labor force has steadily increased from 1920 to 1976, when the percentage of the workforce which is female had climbed to a new high of 40.5 percent. However, despite a continuing climb in overall labor force participation, women are generally confined to five low-paying categories of work: cierical, domestic work, teaching, nursing and sales. Women comprised only 4.5 percent of all craft and kindred workers—"The skilled trades"—in 1975. A woman working fulltime, year-around, in 1974 as a clerical had a median income of \$6,827; a domestic earned \$2,676; a salesperson \$5,168; and a teacher below the college level, not a year-round worker, could expect \$7,739. In contrast, male craft workers reached a median income of \$12,028. (Footnote and reference omitted.]

Historically, women have had only limited participation in apprenticeship programs, which is how many skilled craftworkers enter their Jobs.

In 1976 of the 11 million skilled bluecollar workers, only slightly over a

half million (545,038) were women. Nearly 165,000 of these women were bakers; tailors; upholsterers; and decorators and window dressers; constituting, respectively, 37.2, 32.1, 28.6, and 70.6 percent of total employed. On the other hand, the proportion of women painters. electricians. carpenters. plumbers, machinists, mechanics, stationary engineers, and a few other skilled trades ranged from less than 1 percent to about 3 percent of the total. Although the number of women apprentices increased by 74 percent in one year (1974-75), they still represented only 1.2 percent of the total number of apprentices registered.

#### DISCUSSION

The following sections have not been significantly affected by the regulations adopted today, other than minor conforming and editorial changes: §§ 30.1, 30.2, 30.7, 30.9, 30.10, 30.12, 30.14, 30.16, 30.17, 30.18 and 30.19. The major change in the sections affected by the regulation is the insertion of appropriate words to show that the written affirmative action plan requirement applies to women as well as to minorities. Section 30.6 has been altered in this manner as well as through minor editorial and conforming changes. Other sections significantly affected by the regulation adopted today will be discussed below.

Section 30.3. This section sets forth the equal opportunity standards applicable to sponsors of apprenticeship

programs.

1. Section 30.3(e) provided that a sponsor would not be required to adopt an affirmative action plan under § 30.4 or a selection procedure under § 30.5 if it submitted to the Department satisfactory evidence that it was in compliance with an equal employment opportunity program providing for the selection of apprentices and for affirmative action in apprenticeship which had been approved as meeting the requirements of Title VII of the Civil Rights Act of 1964, as amended, or Executive Order 11246, as amended.

The proposal published in the FED-ERAL REGISTER on September 30, 1977, (42 FR 52441) proposed the following addition to § 30.3(e): "except to the extent that the goals and timetables in such program are less than would be required under this part." Several comments objected to this proposed addition, claiming that meeting the requirements of Executive Order 11246 or Title VII should adequately protect the rights of women and minorities with regard to apprenticeship. After considering these comments, the Department has decided to adopt the following language as an addition to

Provided, That programs approved, modified or renewed subsequent to the effective

date of this regulation will qualify for the exception only if the goals and timetables for both minorities and women for the selection of apprentices provided for in such programs are equal to or greater than the goals required under this part.

Thus the regulation adopted today will permit sponsors with approved equal employment opportunity programs to be exempted from the requirement to adopt an affirmative action plan or a selection procedure during the duration of their currently approved program, provided such programs contain goals and timetables for women as well as for minorities. Programs approved subsequent to the effective date of this amendment will have to be consistent with this part in order for the exemption to be allowed.

2. Section 30.3(f) provided that sponsors of programs with fewer than five apprentices not be required to adopt an affirmative action plan under § 30.4 or a selection procedure under \$30.5. The proposal published in the FEDERAL REGISTER on September 30, 1977 (42 FR 52441) proposed the following addition to § 30.3(f): "provided that such program was not adopted to circumvent the requirements of this part. This proposal has been adopted.

Section 30.4. This section sets forth the requirement that program sponsors adopt a written affirmative action plan, including the establishment of goals and timetables. This section previously required the establishment of goals and timetables for minorities only. The regulation adopted today amends this section to require the establishment of goals and timetables for women as well as for minorities. A number of comments audressed the issue of goals. Some of the commentors, particularly some of the unions and joint apprenticeship councils, characterized goals as "quotas", stated that the goal requirement would require the hiring of unqualitied persons, stated that women are not capable of or interested in working in the skilled trades, and stated that other workers would be displaced by women because of high unemployment in the skilled trades.

The Department of Labor's experience has demonstrated that goals and timetables are the most concrete and effective system for increasing the representation of women and minorities in employment areas from which they have previously been excluded or have not been represented in proportion to their availability. Initially, contractors subject to the requirements of Executive Order 11246, as amended, were required to implement goals and timetables for minorities only. Thereafter, non-construction contractors were required to establish goals and timetables for women also. Most recently, the Executive Order regulations were amended to require goals and timetables for women working in construction.

A review of the status of women in the skilled trades shows that unless specific affirmative action steps are prescribed, employment opportunities in these trades will not reach the female workforce. For example, when these regulations were proposed last September, the preamble contained the following statement (42 FR 52442):

According to the latest available data for January through June 1976, there were 3,545 women apprentices, representing 1.4 percent of the total apprentices (249,060). A further look at the number of women employed in several occupations for which apprenticeships are available shows generally that women are making very small gains. numerically and proportionately. The gains, in fact, are so small that if women are ever to be fairly representative in the skilled crafts, their entry into apprenticeship programs must be greatly accelerated. The Department of Labor's experience has shown that the use of goals and timetables is the most effective means for increasing the number of women and minorities in employment areas from which they previously have been excluded or have not been represented in proportion to their availability. Minority participation in apprenticeship and in individual construction trades, for example, has increased measurably as a result of the minority outreach program and the goals and timetables requirements under 29 CFR Part 30. The data for the first 6 months of 1976 indicate that monorities (who constitute 11.5 percent of the work force) are 17.7 percent of all apprentices. This is a rise from 9.1 percent in 1970. the last year before 29 CFR Part 30 was issued. During the same months in 1976, women (41.1 percent of the work force) held only 1.4 percent of all apprenticeship positions.

In view of these data, affirmative action goals and timetables for women in apprenticeship programs coupled with implementing affirmative action procedures would appear to be particularly appropriate at this time.

Many of the commentors opposed to this regulation claimed that women are not available for work in the skilled trades in the numbers required to achieve the goals. These commentors maintained either that women could not do the work or were not interested in apprenticeships. Information gathered by the Department, however, reveals that when opportunities are opened up for women in the skilled trades, women are available to take advantage of the opportunities.

The experience of World War II demonstrated the ability of women to perform jobs traditionally held as "male". During that period 6.7 million women entered the labor force with 2.9 million working in the crafts, as operatives or non-farm laborers. Approximately 350,000 women served in one of the four military services, and many others served in quasi-military support units. Wemen worked in essentially every occupation except

direct combat. They drove trucks, repaired airplanes, rigged parachutes, were gunnery instructors, as well as air traffic controllers. Data provided to the Department by the Office of Women's Rights, Seattle, Wash., demonstrates the success in placing women in construction trades which was achieved when the City instituted a 12 percent goal for women in all levels of city-financed construction work. The Director of the Office of Women's Rights in a September 26, 1977 letter. wrote that the 12 percent overall goal has been so achieveable that it is likely it will be raised to 15 percent in 1978.

The Maritime Administration, which oversees enforcement of Executive Order 11246 in the shipbuilding industry, has provided the Department with some very useful documentation on both the availability of women for construction-related jobs and the positive impact of goals and timetables in the employment of women in those jobs. A number of the jobs in the shipbuilding industry are comparable to Jobs in construction; the Maritime experience therefore is particularly useful. In early 1972 the Maritime Administration began requiring goals and timetables for women by shipbuilding contractors. The experience was that as more women were employed, more women applied. Once women knew that they would be hired without regard to sex, they applied in large numbers. In at least one shippard the applicant flow is now running at the rate of the normal workforce rate of women in that area, greatly exceeding the 20 percent entry level goal originaily set. Unquestionably, the key reason for the increase of women in that industry is goals and timetables.

Significant employment increases for women have resulted in the skilled and semi-skilled crafts in the Bell System of the American Telephone and Telegraph Co. under the goals required by the consent decree entered in 1973. Goals for women were set at the percentage of women in the workforce (then 38 percent) in all job groups in which they were under-represented, except for outside skilled and semiskilled craft jobs, where the goals were set at half the female work. force figure (i.e. 19 percent in 1973). Annual targets were set at these levels and carefully monitored. From January 1, 1973, to January 1, 1977, women in outside skilled crafts in AT&T rose in actual numbers from 38 to 970. Thus, despite the fact that the company was reducing its workforce in inside skilled and outside and inside semiskilled job groups during the same years, the gains for women were marked in each of these categories. Goals were also required for women in the construction of the Alaska pipeline. Not only was the goal exceeded

but women worked in areas and under conditions where many would have thought women would not accept jobs. Better than 2,500 women worked in the bush in such jobs as operating engineers, teamsters, laborers, etc. In fact, of the 19 construction crafts working on the pipeline, women were represented in all but four.

A major effort to include women in non-traditional jobs, many of them construction related, has been undertaken by the Department of Defense, particularly the Air Force, Between 1974 and 1976, the number of women trained by the Air Force in non-traditional areas increased from 19,465 to 29,235. By 1977, their number had reached 34,610. Also, many of the women who entered the Air Force training programs in the initial stages in 1972, are now entering the civilian labor force and would be available for apprenticeship programs. Some of the Air Force Speciality Codes open to women include: Telephone Switching Equipment Repairman Electrical/Mechanical in which women went from zero in 1972 to 72 in 1977; Helicopter Mechanic, Jet Engine Mechanic, Aircraft Maintenance Specialist, and other related mechanic categories. from zero in 1972 to 3,181 in 1977; Electrician, from one in 1972 to 105 in 1977; Pavement Maintenance Specialist, zero to 46; Carpenter, zero to 91; and Plumber, zero to 72. Air Force enlistees enter the service with a four year commitment; they receive training and perform the duties of these specialities for that period of time. The military has been and remains a primary source for apprenticeship training for many men entering the skilled trades. It should also become a source of recruitment for women.

Since 1971, the Department has funded outreach programs for nontraditional jobs for women. Apprenticeship outreach programs have special women's components in 23 cities which have been funded for recruitment and placement of women. The concept of nontraditional job development for women has now been incorporated in all apprenticeship outreach programs and is involving women in over 100 cities. These and other specialized onthe-Job training programs funded by the Department's Office of National Programs have contributed to opportunities for women in trades in which they were previously unrepresented. At the same time, however, overall numbers have not shown a significant increase comparable to that of minorities. Among the most successful projects are:

Better Jobs For Women—Initiated in 1971 under the leadership of the Denver Metropolitan YWCA, this project was developed by the Bureau of Apprenticeship and Training of the Department of Labor. It is one of two outreach programs operating specifically to get women into nontraditional jobs. The target population was female heads of households. Each year this project has surpassed its stated goal for placements. It has reported that there is greater interest in apprenticeship by women than there are opportunities. For example, as of April 1977 a yearly average of 150-200 women applied for registered apprenticeship but only 20 were placed.

Advocates For Women—A San Francisco project, funded by the Department of Labor since January 1974, this project serves nine counties in the San Francisco Bay Area. Its goal is to place women in apprenticeship training with

an emphasis on construction.

The project reports that 1,100 women apply each year: 125 are placed. The project has had to stop advertising because the interest generated so far exceeds the placements avail-

able. National Urban League, LEAP Apprenticeship Outreach Program For Women.-This project was funded by the Department of Labor in May 1974 to provide for greater involvement of women in apprenticeship. It is operated in conjunction with LEAP projects already providing outreach for minorities. It has operated in 15 cities across the country. This project has placed women in more than 15 crafts. The crafts in which women are participating under this project include: Asbestos workers, bricklayers, carpenters (22.8 percent of placements), cement masons, drywall tapers, electricians, ironworkers, laborers (14.9 percent), pipe trades, roofers, sheet metal workers, tilesetters, and welders.

A number of representatives of outreach programs and women's organizations commented in favor of the proposed regulation, stating that many women are eager to enter apprenticeships but that there are insufficient openings due to lack of affirmative action goals.

Thus the Department's experience indicates that there are women available and interested in entering the skilled trades. However, the longstanding reputation of the trades for excluding women discourages many women from applying for these jobs. A study by two Stanford University psychologists demonstrates that the number of women applying for jobs in the construction trades would substantially increase were there goals for women. In that study, two groups of female job seekers were given three detailed job descriptions and were asked to rate their interest in the jobs on a scale of 1 to 5, from "not interested" to "extremely interested." Two of the three jobs described were traditionally female jobs and one was a construction job. Half of the booklets contained the following statement

under the title of the construction jobs: "Equal Opportunity for Women, Note: Federal Law Now Requires That Companies Train and Hire a Certain Percentage of Women for the Job of [carpenter] Each Year." The other half of the booklets contained no statement about affirmative action. In the affirmative action group, 33 percent of the women indicated a strong interest in the construction job, twice the percentage indicating a strong interest as in the other group. Seventy percent of the women in the affirmative action group expressed some degree of positive interest in construction jobs, one and one half as many as the other group.

Thus it is clear that women are available for apprenticeship opportunities. Furthermore, if women are to receive a fair number of these opportunities it is necessary to establish specific affirmative action requirements, including goals and timetables.

The Department of Labor recognizes and adheres to the distinction between permissible affirmative action goals and timetables and impermissible quotas. In a March 23, 1973 memorandum, the Departments of Justice and Labor and the Equal Employment Opportunity Commission and the Civil Service Commission distinguished goals and timetables from quotas:

 Quota systems in the past have been used in other contexts as a quantified limitation, the purpose of which is exclusion, but this is not its sole definition. A quota system, applied in the employment context, would impose a fixed number or percentage which must be attained, or which cannot be exceeded; the crucial consideration would be whether the mandatory numbers of persons have been hired or promoted. Under such a quota system, that number would be fixed to reflect the population in the area, or some other numerical base, regardless of the number of potential applicants who meet necessary qualifications. If the employer failed, he would be subject to sanction. It would be no defense that the quota may have been unrealistic to start with, that he had insufficient vacancies, or that there were not enough qualified applicants, although he tried in good faith to obtain them through appropriate recruitment methods.

Any system which requires that consideration of relative abilities and qualifications be subordinated to considerations of race, religion, sex or national origin in determining who is to be hired, promoted, etc., in order to achieve a certain numerical position has the attributes of a quota system which is deemed to be impermissible under the standards set forth herein.

A goal, on the other hand, is a numerical objective, fixed realistically in terms of the number of vacancies expected, and the number of qualified applicants available in the relevant job market. Thus, if through no fault of the employer, he has fewer vacancies than expected, he is not subject to sanction, because he is not expected to displace existing employees or to hire unneeded employees to met his goal. Similarly, if he has demonstrated every good faith effort

to include persons from the group which was the object of discrimination into the group being considered for selection, but has been unable to do so in sufficient numbers to meet his goal, he is not subject to sanction.

The Department of Labor continues to recognize the distinction between affirmative action and impermissible quotas, and also follows the policy enunciated in the memorandum quoted above.

The Congress and the courts also have recognized and acquiesced in the affirmative action programs (including goals and timetables) required under Executive Order 11246, as amended, which is administered by the Office of Federal Contract Compliance Programs of the Department. When Congress considered the Equal Employment Opportunity Act of 1972 (Pub. L. 92-261), Senator Saxbe made the following statement (118 Cong. Rec. 1385):

The OFCCIPI's affirmative action programs have tremendous impact and require that 260,000 Government contractors in ali industries adopt positive programs to seek out minorities and women for new employment opportunities. To accomplish this objective, the OFCC(P) has utilized the proven business technique of establishing 'goals and timetables" to insure the success of the Executive Order Program. It has been the "goals and timetables" approach which is unique to the OFCC[P]'s efforts in equal employment, coupled with extensive reporting and monitoring procedures that has given the promise of equal employment opportunity a new credibility.

The Executive Order Program should not be confused with the judicial remedies for proven discrimination which unfold on a limited and expensive case-by-case basis. Rather, affirmative action means that all Government contractors must develop programs to insure that all share equally in the jobs generated by the Federal Government's spending. Proof of overt discrimination is not required.

Senator Saxbe's proposed amendment was adopted. (118 Cong. Rec. 1387-1398 (1972).) In addition, 2 days after hearing the comments of Senator Saxbe, quoted above, Congress rejected an amendment offered by Senator Ervin which would have proscribed the adoption of goals by Government contractors. See also U.S. v. Elevator Constructors (IUEC) Local Union No. 5, 538 F.2d 1012, (3rd Cir. 1976); Constructors Ass'n of Eastern Pa. v. Shullz, 442 F.2d 159 (3rd Cir. 1971), cert. denied, 404 U.S. 854 (1971).

Some of the comments which opposed the use of goals for women suggested alternative methods for achieving affirmative action. Alternatives suggested included the use of outreach programs, emphasis on recruitment, and the development of special programs to prepare women with basic skills required to enter apprenticeship programs. As has been discussed above, both outreach programs and re-

cruitment have been used in the past and while there has been some notable success, there continues to be serious underrepresentation of women in apprenticeship programs. It has been the Department's experience that this underrepresentation can best be remedied through the use of goals and timetables.

3. Section 30.4(e) sets forth the factors which should be analyzed in writing as part of the affirmative action plan. Item (1) in the existing regulation provides the following: "The minority population of the labor market area in which the program sponsor operates." This factor was inadvertently omitted from the September 30, 1977, proposal (42 FR 52441). Several comments were addressed to this issue, suggesting that the existing item (1) be amended to include the female population. The appropriate factor, however, is the working age minority and female (minority and nonminority) population.

4. Section 30.4(f) sets forth the method by which program sponsors are to establish and attain their goals and timetables. The proposal published on September 30, 1977, (42 FR 52441) contained two additions to \$30.4(f) which are included in the regulation adopted today. The first addition reads as follows:

A single goal for minorities and a separate single goal for women is acceptable unless a particular group is employed in a substantially disparate manner in which case separate goals shall be established for such group. Such separate goals would be required for example, if a specific minority group of women were underutilized even though the female goals generally had been achieved.

This addition requires sponsors to establish two goals: one for women and one for minorities. In instances where a particular group of women or a particular group of minority men is employed in a substantially disparate manner, the sponsor would be required to establish separate goals for the group in question. For example, a sponsor could meet its goals for women and minorities yet have substantial underrepresentation of minority women in its apprenticeship program. In this case the sponsor would be required to set separate goals for minority women. The same would be true if there were significant underrepresentation of white women or of a particular minority group.

The second addition to § 30.4(f) reads as follows:

However, in order to deal fairly with program sponsors and with women who are entitled to protection under the goals and timetables requirements, during the first 12 months after the effective date of these regulations, the program sponsor would generally be expected to set a goal for women for the entering year class at a rate which is not less than one half the proportion women

are of the workforce in the program sponsor's labor market area and set a percentage goal for women in all classes beyond the entering class which is not less than the participation rate of women currently in the preceding class. At the end of the first 12 months after the effective date of these regulations, sponsors are expected to make appropriate adjustments in goal levels. See 29 CFR 30.8(b).

A number of comments, primarily from unions and joint apprenticeship committees, opposed this method of establishing goals for women in the entering class of apprenticeship programs. Their main complaint was that the method would result in a goal which was unrealistic and impossible to meet because there were not enough women with the ability and/or interest to enter the skilled trades.

As we have discussed above, however, the information collected by the Department of Labor indicates that where opportunities are extended to women, there are women available. Furthermore, from the material the Department has studied in connection with the preparation of this regulation, it appears that the goal which will result from the regulation adopted today is a reasonable one. Sponsors will not be held to an absolute standard of achieving the goal but are expected to make good faith efforts to meet the goal.

As of 1976 women constituted 40.5 percent of the national labor force. While the figures will vary from one program sponsor's labor market area to another, the entering class goal resulting from the regulation adopted today should be at least 20 percent. It is to be noted that this was the goal successfully used by the Maritime Administration for apprenticeship and comparable entry level jobs in shipbuilding. Likewise the goals for hiring women in outside skilled and semiskilled crafts under the American Telephone and Telegraph Company Consent Decree were set at half the female workforce figure. In addition, as discussed above, Seattle, Wash., instituted a 12 percent goal for women in city financed construction work. This goal applied to all levels and types of construction work, not just apprenticeship. As we have seen the Office of Women's Rights in Seattle has indicated that the goal has been so achievable it is likely to be raised to 15 percent. Although the goals required for women in construction under the Executive Order 11246 regulations are lower than the entering class goal required by this regulation. this is appropriate in view of the fact that the Executive Order 11246 goals supply to all levels of construction work, not just apprenticeship. Thus, the goals set reflect the fact that there are few women journeypersons and advanced apprentices available.

Several alternatives were proposed by those who opposed the method of

establishing entering class goals required by this regulation. These included basing goals on the percentage of women currently working in the apprenticeable trades, on the number of women who apply for apprenticeships. and/or on the number of women interested in apprenticeship. The Department has considered these alternatives and found them to be unacceptable. To base goals on the current percentage of women in the skilled trades would serve to perpetuate the discrimination which has resulted in so few women entering the trades. Further, it would be inappropriate because apprenticeships are entry-level positions. requiring no previous skills or training. Thus the applicable labor market is not those in the labor force who have already acquired skills, but those who possess the capability to be trained. In the absence of any proof to the contrary, the Department assumes that the percentage of the female labor force capable of being trained in the skilled trades is approximately equal to the percentage of the male labor force with that capability. Thus the Department assumes that in the absence of discrimination women would be represented in the skilled trades in a fashion comparable to their representation in the total workforce in a given geographical area.

Basing goals on the numbers of women who have applied for apprenticeship or otherwise indicated interest in apprenticeship is likewise unacceptable. As a number of courts have held, people are often discouraged from applying for jobs with employers who have a reputation of not hiring members of their particular group. See Lea v. Cone Mills Corp., 301 F. Supp. (M.D.N.C. 1969), aff'd in relevant part, 483 F.2d 86 (4th Cir. 1971); U.S. v. Central Motor Lines, Inc., 338 F. Supp. 532 (W.D. N.C. 1971); Dobbins v. Local 212, IBEW, 292 F. Supp. 413, (S.D. Ohio 1968). Thus the number of women applying for apprenticeship should not be used as a basis for goal-setting. Basing goals on the number of women who have expressed interest in apprenticeship would be objectionable for the same reason.

Some of the comments suggested that the Department delay requiring goals for women for 2 years, requiring vigorous recruitment of women during that 2-year period. Goals would then be based on the number of women who demonstrated interest in apprenticeship during this 2-year period. It is the Department's position that this suggestion is unacceptable because women are so seriously underrepresented in the skilled trades it is necessary to begin remedial action immediately. As discussed previously, it is the Department's experience that goals and timetables are the most effective means for accomplishing such remedial action. Clearly vigorous recruitment is also required but experience has shown that it alone is not enough.

A few comments maintained that the availability of women would vary from one region to another and that this fact should be accounted for in the regulation. It is to be noted that goals are set based on a particular sponsor's labor market area. Thus if the percent of women is lower than the national average in a particular labor market area the entering class goal would be lower as well. Since we have no proof that the female interest in apprenticeship varies significantly from one geographic area to another. there is no reason to make any further distinctions based on region.

Some of the individuals and women's groups who commented in favor of the regulation recommended that the Department adopt workforce parity as the ultimate goal for women in apprenticeship and require that the goal be set at this level in 5 years. The regulation adopted today provides at § 30.8 that the goals and timetables shall be updated annually until work-

force parity is achieved.

Section 30.5. This section sets forth the obligations of sponsors in the adoption of a method for the selection of apprentices.

1. Minor changes have been made in this section to make it consistent with the Office of Federal Contract Compliance Programs Guidelines on Employee Selection Procedures, 41 CFR

Part 60-3.

- 2. Changes have been made in § 30.5(b)(1)(iii) and § 30.5(b)(4)(i)(B) to eliminate minimum physical requirements as acceptable qualifications for apprenticeship. Some of those who commented against the proposed regulation suggested that minimum physical requirements be permitted. Minimum physical requirements were eliminated from the proposal and from the regulation adopted today because such requirements have traditionally been used to exclude women and some minority groups from employment opportunities. By minimum physical requirements we are referring to such things as height and weight requirements and arbitrarily applied strength requirements. We note, however, that while a sponsor could not reject applicants on their height, weight, or apparent strength, there is nothing in the regulation adopted today which would prohibit properly job-related performance and physical ability tests. Such tests must meet the requirements of 41 CFR Part 60-3 in order to be acceptable.
- 3. In the proposal published on September 30, 1977 (42 FR 52441), changes were made in § 30.5(b)(4)(i)(A) to require that a sponsor complete development of its revised selection method along with the rest of its af-

firmative action program within 60 days of the effective date of this amendment. Some comments criticized this provision as not allowing enough time. The provision was changed from 60 to 90 days to make it consistent with § 30.3(c).

Section 30.11. This section sets forth

the complaint procedure.

i. A number of comments addressed the provision that allows complaints to be filed with a private review body, stating that such procedures should not be imposed on complainants but should be voluntary. We note that both the proposal and the regulation adopted today do make the use of private review bodies optional, as the complainant has the choice of filing his or her complaint with the Department or the private review body.

2. Section 30.11(b)(3) was added in both the proposal and in the regulation adopted today to require that sponsors provide written notice of the complaint procedure to all applicants for apprenticeship and all apprentices. A number of individuals and groups commented favorably on this addition, stating that it was very important since without it many applicants and apprentices would not know what recourse they had in the event they believed they had been subjected to dis-

crimination. Section 30.15. This section sets forth procedures to be followed by State Apprenticeship Councils. The proposal and the regulation adopted today require that each State Apprenticeship Council complete development of a revised equal opportunity plan which shall be consistent with this part within 60 days of the effective date of this regulation. The revised State plan must require all State apprenticeship programs registered with the State Apprenticeship Council to comply with the requirements of the revised State plan within 90 days of the effective date of this regulation. Some of the comments criticized the proposal on the basis that these time requirements were too short, others criticized them on the basis that they were too long. It is the Department's decision that the time periods are adequate.

#### OTHER COMMENTS

1. Some comments expressed the view that the Department of Labor should withhold a decision until the Supreme Court has ruled in The Regents of the University of California v. Bakke case. It, of course, is always difficult to predict with precision how the Supreme Court will rule in a specific case. However, it is not likely that a ruling in that case, a university admissions case, would have the type of impact on these regulations that they should be held in abeyance until the Supreme Court has ruled.

2. Some comments stated that the regulation adopted today should not

be implemented in a time of high unemployment in the skilled trades. It is to be noted, however, that this regulation does not require that any current apprentices or other workers be laid off or removed from apprenticeship programs.

3. A number of those favoring the regulation objected to the use of the word "qualified" modifying minorities or women in the section of the Preamble entitled "Proposed Changes." These comments pointed out that the term is not used in the current regulation or the proposed amendment. They advocated as an alternative the use of the word "trainable," claiming that there was a possibility that biased program sponsors may use this language as an excuse to exclude women on the basis that they are not "quallfied." As stated previously, the regulation adopted today reflects the Department's determination that apprenticeships, like other entry level jobs, do not require any particular training or qualification other than the capability to be trained. The use of the word "qualified" in the Preamble to the proposed regulation was not intended to signify anything contrary to this position.

4. Neither the proposed regulations nor the regulations adopted today amended 29 CFR 30.5(b)(4)(B) which permits school diplomas as a qualification standard. Comments were invited, however, on the issue of whether the school diploma should be retained as an alternative selection method. A number of comments were received on this issue both in favor and opposed to the retaining of the school diploma as a permissible selection criteria. No change was made in this section because current law is clear that if a high school diploma requirement has an adverse impact on any group, it must be validated. Griggs v. Duke Power Co., 401 U.S. 424 (1971). The current regulation requires such validation in accordance with the Guidelines on Employee Selection Procedures, 41 CFR Part 60-3.

In consideration of the foregoing, 29 CFR Part 30 is hereby amended as set

forth below.

Dated: May 9, 1978.

ERNEST G. GREEN,
Assistant Secretary, Employment and Training Administration.

30.1 Scope and purpose.

30.2 Definitions.

30.3 Equal opportunity standards.

30.4 Affirmative action plans.

30.5 Selection of apprentices.
30.6 Existing lists of eligibles and public notice.

30.7 [Reserved].

30.8 Records.

30.9 Compliance reviews.

30.10 Noncompliance with Federal and State equal opportunity requirements.

Sec.

30.11 Complaint procedure.

30.12 Adjustment in schedule for compliance review or complaint processing.

30.13 Sanctions.

- 30.14 Reinstatement of program registration.
- 30.15 State Apprenticeship Councils.

30.16 Hearings.
30.17 Intimidatory or retaliatory acts.

30.18 Nondiscrimination.

30.19 Exemptions.

AUTHORITY: Sec. 1, 50 Stat. 664, as amended; 29 U.S.C. 50; 40 U.S.C. 276c; 5 U.S.C. 301; Reorganization Plan No. 14 of 1950, 64 Stat. 1267, 3 CFR 1949-53 Comp. p. 1007.

#### § 30.1 Scope and purpose.

This part sets forth policies and procedures to promote equality of opportunity in apprenticeship programs registered with the U.S. Department of Labor and in state apprenticeship programs registered with recognized state apprenticeship agencies. These policies and procedures apply to the recruitment and selection of apprentices, and to all conditions of employment and training during apprenticeship. The procedures established provide for review of apprenticeship programs. for registering apprenticeship programs, for processing complaints, and for deregistering noncomplying apprenticeship programs. This part also provides policies and procedures for continuation or withdrawal of recognition of state agencies for registering of apprenticeship programs for Federal purposes. The purpose of this part is to promote equality of opportunity in apprenticeship by prohibiting discrimination based on race, color, religion, national origin, or sex in apprenticeship programs, by requiring affirmative action to provide equal opportunity in such apprenticeship programs. and by coordinating this part with other equal opportunity programs.

#### § 30.2 Definitions.

(a) "Department" means the U.S. Department of Labor.

(b) "Employer" means any person or organization employing an apprentice whether or not the apprentice is enrolled with such person or organization or with some other person or organization.

(c) "Apprenticeship program" means a program registered by the Department and evidenced by a Certificate of Registration as meeting the standards of the Department for apprenticeship. but does not include a state apprenticeship program.

(d) "Sponsor" means any person or organization operating an apprenticeship program, irrespective of whether such person or organization is an em-

ployer.

(e) "Secretary" means the Secretary of Labor, the Assistant Secretary of Labor for Employment and Training, or any person specifically designated by either of them.

(f) "State Apprenticeship Council" means a state apprenticeship council or other state agency in any of the 50 states, the District of Columbia, or any territory or possession of the United States, which is recognized by the Department as the appropriate agency for registering programs for Federal purposes.

(g) "State apprenticeship program" means a program registered with a State Apprenticeship Council and evidenced by a Certificate of Registration or other appropriate document as meeting the standards of the State Apprenticeship Council for apprenticeship.

(h) "State program sponsor" means any person or organization operating a State apprenticeship program, irrespective of whether such person or organization is an employer.

#### § 30.3 Equal opprtunity standards.

(a) Obligations of sponsors. Each sponsor of an apprenticeship program shall:

(1) Recruit, select, employ, and train apprentices during their apprenticeship, without discrimination because of race, color, religion, national origin,

or sex: and

(2) Uniformly apply rules and regulations concerning apprentices, including but not limited to, equality of wages, periodic advancement, promotion, assignment of work, job performance, rotation among all work processes of the trade, imposition of penalties or other disciplinary action, and all other aspects of the apprenticeship program administration by the program sponsor; and

(3) Take affirmative action to provide equal opportunity in apprenticeship, including adoption of an affirmative action plan as required by this

part.

(b) Equal opportunity pledge. Each sponsor of an apprenticeship program shall include in its standards the following equal opportunity pledge:

The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30.

(c) Programs presently registered. Each sponsor of a program registered with the Department as of the effective date of this part shall within 90 days of that effective date take the following action:

(1) Include in the standards of its apprenticeship program the equal opportunity pledge prescribed by paragraph (b) of this section.

(2) Adopt an affirmative action plan required by § 30.4; and

(3) Adopt a selection procedure required by § 30.5. A sponsor adopting a selection method under §30.5(b) (1), (2), or (3) shall prepare, and have available for submission upon request, copies of its amended standards, affirmative action plans, and selection procedure. A sponsor adopting a selection method under § 30.5(b)(4) shall submit to the Department copies of its standards, affirmative action plan and selection procedure in accordance with the requirements of § 30.5(b)(4)(i)(a).

(d) Sponsors seeking new registration. A sponsor of a program seeking new registration with the Department shall submit copies of its proposed standards, affirmative action plan, selection procedures, and such other information as may be required. The program shall be registered if such standards, affirmative action plan, and selection procedure meet the require-

ments of this part.

(e) Programs subject to approved equal employment opportunity programs. A sponsor shall not be required to adopt an affirmative action plan under § 30.4 or a selection precedure under § 30.5 if it submits to the Department satisfactory evidence that it is in compliance with an equal employment opportunity program providing for the selection of apprentices and for affirmative action in apprenticeship including goals and timetables for women and minorities which has been approved as meeting the requirements of Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000e et seq.) and its implementing regulations published in Title 29 of the Code of Federal Regulations, Chapter XIV or Executive Order 11246, as amended. and its implementing regulations at Title 41 of the Code of Federal Regulations, Chapter 60: Provided, That programs approved, modified or renewed subsequent to the effective date of this amendment will qualify for this exception only if the goals and timetables for minorities and women for the selection of apprentices provided for in such programs are equal to or greater than the goals required under this

(f) Program with fewer than five apprentices. A sponsor of a program in which fewer than five apprentices are indentured shall not be required to adopt an affirmative action plan under § 30 4 or a selection procedure under § 30.5° Frovided, That such program was not adopted to circumvent the requirements of this part.

#### § 50.4 Affirmative action plans.

(ic) Adoption of affirmative action plans. A sponsor's commitment to equal opportunity in recruitment, selection, employment, and training of apprentices shall include the adoption of a written affirmative action plan.

(b) Definition of alternative action. Attainative action is not mere passive nondiscrimination. It includes procedures, methods, and programs for the identification, positive recruitment, training, and motivation of present. and potential minority and female (minority and nonminority) apprentices including the establishment of goals and timetables. It is action which will equalize opportunity in apprenticeship so as to allow full utilization of the work potential of minorities and women. The overall result to be sought is equal opportunity in apprenticeship for all individuals participating in or seeking entrance to the

Nation's labor force.

(e) Outreach and positive recruitment. An acceptable affirmative action plan must also include adequate provision for outreach and positive recruitment that would reasonably be expected to increase minority and female participation in apprenticeship by expanding the opportunity of minorities and women to become eligible for apprenticeship selection. In order to achieve these objectives, sponsors shall undertake activities such as those listed below. It is not contemplated that each sponsor necessarily will include all the listed activities in its affirmative action program. The scope of the affirmative action progrant will depend on all the circumstances including the size and type of the program and its resources. However, the sponsor will be required to undertake a significant number of appropriate activities in order to enable it to meet its obligations under this part. The affirmative action plan shall set forth the specific steps the sponsor intends to take in the areas listed below. Whenever special circumstances warrant, the Department may provide such financial or other assistance as it deems necessary to implement the requirements of this paragraph.

(1) Dissemination of information concerning the nature of the apprenticeship, requirements for admission to apprenticeship, availability of apprenticeship opportunities, sources of apprenticeship applications, and the equal opportunity policy of the sponsor. For programs accepting applications only at specified intervals, such information shall be disseminated at least 30 days in advance of the earliest date for application at each interval. For programs customarily receiving applications throughout the year, such information shall be regularly disseminated but not less than semiannually. Such information shall be given to the Department, local schools, employment service offices. women's centers, outreach programs and community organizations which can effectively reach minorities and women, and shall be published in newspapers which are circulated in the minority community and among women, as well as in the general areas

in which the program sponsor oper-

(2) Participation in annual workshops conducted by employment service agencies for the purpose of familarizing school, employment service and other appropriate personnel with the apprenticeship system and current opportunities therein.

(3) Cooperation with local school boards and vocational education systems to develop programs for preparing students to meet the standards and criteria required to qualify for entry into apprenticeship programs.

(4) Internal communication of the sponsor's equal opportunity policy in such a manner as to foster understanding, acceptance, and support among the sponsor's various officers, supervisors, employees, and members and to encourage such persons to take the necessary action to aid the sponsor in meeting its obligations under this

(5) Engaging in programs such as outreach for the positive recruitment and preparation of potential applicants for apprenticeships; where appropriate and feasible, such programs shall provide for pretesting experience and training. If no such programs are in existence the sponsor shall seek to initiate these programs, or, when available, to obtain financial assistance from the Department. In initiating and conducting these programs, the sponsor may be required to work with other sponsors and appropriate community organizations. The sponsor shall also initiate programs to prepare women and encourage women to enter

(6) To encourage the establishment and utilization of programs of preapprenticeship, preparatory trade training, or others designed to afford related work experience or to prepare candidates for apprenticeship, a sponsor shall make appropriate provision in its affirmative action plan to assure that those who complete such programs are afforded full and equal opportunity for admission into the apprenticeship

traditionally male programs.

program.

(7) Utilization of journeypersons to assist in the implementation of the sponsor's affirmative action program.

(8) Granting advance standing or credit on the basis of previously acquired experience, training, skills, or aptitude for all applicants equally.

(9) Admitting to apprenticeship, persons whose age exceeds the maximum are for admission to the program, where such action assists the sponsor in achieving its affirmative action obligations.

(10) Other appropriate action to ensure that the recruitment, selection, employment, and training of apprentices during apprenticeship shall be without discrimination because of race, color, religion, national origin, or

sex (e.g., general publication of apprenticeship opportunities and advantages in advertisements, industry reports, articles, etc.; use of present minority and female apprentices and journeypersons as recruiters; career counseling; periodic auditing of affirmative action programs and activities; and development of reasonable procedures between the sponsor and employers of apprentices to ensure that employment opportunity is being granted, including reporting systems, on-site reviews, briefing sessions, etc.). The affirmative action program shall set forth the specific steps the sponsor intends to take, in the above areas. under this paragraph (c). Whenever special circumstances warrant, the Department may provide such financial or other assistance as it deems necessary to implement the above requirements.

(d) Goals and timetables. (1) A sponsor adopting a selection method under § 30.5(b) (1) or (2) which determines on the basis of the analysis described in paragraph (e) of this section that it has deficiencies in terms of underutilization of minorities and/or women (minority and nonminority) in the craft or crafts represented by the program shall include in its affirmative action plan percentage goals and timetables for the admission of minority and/or female (minority and nonminority) applicants into the eligibility

pool.

(2) A sponsor adopting a selection method under § 30.5(b) (3) or (4) which determines on the basis of the analysis described in paragraph (e) of this section that it has deficiencies in terms of the underutilization of minorities and/or women in the craft or crafts represented by the program shall include in its affirmative action plan percentage goals and timetables for the selection of minority and female (minority and nonminority) applicants for the apprenticeship pro-

(3) "Underutilization" as used in this paragraph refers to the situation where there are fewer minorities and/ or women (minority and nonminority) in the particular craft or crafts represented by the program than would reasonably be expected in view of an analysis of the specific factors in subparagraphs (1) through (5) in paragraph (e) of this section. Where, on the basis of the analysis, the sponsor determines that it has no deficiencies, no goals and timetables need be established. However, where no goals and timetables are established, the affirmative action plan shall include a detailed explanation why no goals and timetables have been established.

(4) Where the sponsor fails to submit goals and timetables as part of its affirmative action plan or submits goals and timetables which are unacceptable, and the Department determines that the sponsor has deficiencies in terms of underutilization of minorities or women (minority and nonminority) within the meaning of this section, the Department shall establish goals and timetables applicable to the sponsor for the admission of minority and female (minority and nonminority) applicants into the eligibility pool or selection of apprentices, as appropriate. The sponsor shall make good faith efforts to attain these goals and timetables in accordance with the requirements of this section.

(e) Analysis to determine if deficiencies exist. The sponsor's determination as to whether goals and timetables shall be established, shall be based on an analysis of at least the following factors, which analysis shall be set forth in writing as part of the affirma-

tive action plan.

(1) The size of the working age minority and female (minority and non-minority) population in the program sponsor's labor market area;

(2) The size of the minority and female (minority and nonminority) labor force in the program sponsor's labor market area;

- (3) The percentage of minority and female (minority and nonminority) participation as apprentices in the particular craft as compared with the percentage of minorities and women (minority and nonminority) in the labor force in the program spensor's labor market area;
- (4) The percentage of minority and female (minority and nonminority) participation as journeypersons employed by the employer or employers participating in the program as compared with the percentage of minorities and women (minority and nonminority) in the sponsor's labor market area and the extent to which the sponsor should be expected to correct any deficiencies through the achievement of goals and timetables for the selection of apprentices; and

(5) The general availability of minorities and women (minority and non-minority) with present or potential capacity for apprenticeship in the program sponsor's labor market area.

(f) Establishment and attainment of goals and timetables. The goals and timetables shall be established on the basis of the sponsor's analyses of its underutilization of minorities and women and its entire affirmative action program. A single goal for minorities and a separate single goal for women is acceptable unless a particular group is employed in a substantially disparate manner in which case separate goals shall be established for such group. Such separate goals would be required, for example, if a specific minority group of women were underutilized even though the sponsor had achieved its standards for women gen-

erally. In establishing the goals, the sponsor should consider the results which could be reasonably expected from its good faith efforts to make its overall affirmative action program work. Compliance with these requirements shall be determined by whether the sponsor has met its goals within its timetables, or failing that, whether it has made good faith efforts to meet its goals and timetables. Its "good faith efforts" shall be judged by whether it is following its affirmative action program and attempting to make it work, including evaluation and changes in its program where necessary to obtain the maximum effectiveness toward the attainment of its goals. However, in order to deal fairly with program sponsors, and with women who are entitled to protection under the goals and timetables requirements, during the first 12 months after the effective date of these regulations, the program sponsor would generally be expected to set a goal for women for the entering year class at a rate which is not less than 50 percent of the proportion women are of the workforce in the program sponsor's labor market area and set a percentage goal for women in each class beyond the entering class which is not less than the participation rate of women currently in the preceding class. At the end of the first 12 months after the effective date of these regulations, sponsors are expected to make appropriate adjustments in goal levels. See 29 CFR 30.8(b).

(g) Data and information. The Secretary of Labor, or a person or agency designated by the Secretary, shall make available to program sponsors data and information on minority and female (minority and nonminority) labor force characteristics for each Standard Metropolitan Statistical Area and for other special areas as appropriate.

#### § 30.5 Selection of apprentices.

(a) Obligations of sponsors. In addition to the development of a written affirmative action plan to ensure that minorities and women have an equal opportunity for selection as apprentices and otherwise ensure the prompt achievement of full and equal opportunity in apprenticeship, each sponsor shall further provide in its affirmative action program that the selection of apprentices shall be made under one of the methods specified in the following subparagraphs (1) through (4) of paragraph (b) of this section.

(b) Selection methods. The sponsor shall adopt one of the following methods for selecting apprentices:

(1) Selection on basis of rank from pool of eligible applicants—(1) Selection. A sponsor may select apprentices from a pool of eligible applicants created in accordance with the require-

ments of subdivision (iii) of this subparagraph on the basis of the rank order of scores of applicants on one or more qualification standards where there is a significant statistical relationship between rank order of scores and performance in the apprenticeship program. In demonstrating such relationship, the sponsor shall follow the procedures set forth in Guidelines on Employee Selection Procedures published at 41 CFR Part 60-3.

(ii) Requirements. The sponsor adopting this method of selecting apprentices shall meet the requirements of subdivisions (iii) through (vii) of

this subparagraph.

(iii) Creation of pool of eligibles. A pool of eligibles shall be created from applicants who meet the qualifications of minimum legal working age; or from applicants who meet qualification standards in addition to minimum legal working age: Provided, That any additional qualification standards conform with the following requirements:

(A) Qualification standards. The qualification standards, and the procedures for determining such qualification standards, shall be stated in detail and shall provide criteria for the specific factors and attributes to be considered in evaluating applicants for admission to the pool. The score required under each qualification standard for admission to the pool shall also be specified. All qualification standards, and the score required on any standard for admission to the pool, shall be directly related to job performance, as shown by a significant statistical relationship between the score required for admission to the pool, and performance in the apprenticeship program. In demonstrating such relationship, the sponsor shall follow the procedures set forth in 41 CFR Part 60-3. Qualifications shall be considered as separately required so that the failure of an applicant to attain the specified score under a single qualification standard shall disqualify the applicant from admission to the pool.

(B) Aptitude tests. Any qualification standard for admission to the pool consisting of aptitude test scores shall be directly related to job performance, as shown by significant statistical relationships between the score on the aptitude tests required for admission to the pool, and performance in the apprenticeship program. In determining such relationship, the sponsor shall follow the procedures set forth in 41 CFR Part 60-3. The requirements of this subparagraph (B) shall also be applicable to aptitude tests utilized by a program sponsor which are administered by a state employment agency. or any other person, agency, or organization engaged in the selection or evaluation of personnel. A national test developed and administered by a national joint apprenticeship committee will not by approved by the Department unless such test meets the requirements of this subsection.

(C) Educational attainments. All educational attainments or achievements as qualifications for admission to the pool shall be directly related to job performance as shown by a significant statistical relationship between the score required for admission to the pool and performance in the apprenticeship program. In demonstrating such relationship, the sponsor shall meet the requirements of 41 CFR Part 60-3. School records or a passing grade on the general education development tests recognized by the State or local public instruction authority shall be evidence of educational achievement. Education requirements shall be applied uniformly to all applicants.

(iv) Oral interviews. Oral interviews shall not be used as a qualification standard for admission into an eligibility pool. However, once an applicant is placed in the eligibility pool, and prior to selection for apprenticeship from the pool, he or she may be required to submit to an oral interview. Oral interviews shall be limited to such objective questions as may be required to determine the fitness of applicants to enter the apprenticeship program, but shall not include questions relating to qualifications previously determined in gaining entrance to the eligibility pool. When an oral interview is used, each interviewer shall record the questions and the general nature of the applicant's answers, and shall prepare a summary of any conclusions. Each applicant rejected from the pool of eligibles on the basis of an oral interview shall be given a written statement of such rejection, the reasons therefor, and the appeal rights available to the applicant.

(v) Notification of applicants. All applicants who meet the requirements for admission shall be notified and placed in the eligibility pool. The program sponsor shall give each rejected applicant who is not selected for the pool or the program notice of his or her rejection, including the reasons for the rejection, the requirements for admission to the pool of eligibles, and the appeal rights available to the ap-

plicant.

(vi) Goals and timetables. The sponsor shall establish where required by § 30.4(d), percentage goals and timetables for the admission of minorities and women (minority and nonminority) into the pool of eligibles, in accordance with the provisions of § 30.4 (d), (e), and (f).

(vii) Compliance. A sponsor shall be deemed to be in compliance with its commitments under subdivision (vi) of this subparagraph if it meets its goals or timetables or if it makes a good faith effort to meet these goals and

timetables. In the event of the failure of the sponsor to meet its goals and timetables, it shall be given an opportunity to demonstrate that it has made every "good faith effort" to meet its commitments (see § 30.4(f)). All the actions of the sponsor shall be reviewed and evaluated in determining whether such good faith efforts have been made.

(2) Random selection from pool of eligible applicants—(i) Selection. A sponsor may select apprentices from a pool of eligible applicants on a random basis. The method of random selection is subject to approval by the Department. Supervision of the random selection process shall be by an impartial person or persons selected by the sponsor, but not associated with the administration of the apprenticeship program. The time and place of the selection, and the number of apprentices to be selected, shall be announced. The place of the selection shall be open to all applicants and the public. The names of apprentices drawn by this method shall be posted immediately following the selection at the program sponsor's place of business.

Requirements. The sponsor adopting this method of selecting apprentices shall meet the requirements of subdivisions (iii) through (v) of subparagraph (1) of this paragraph relating to the creation of pool of eligibles, oral interviews, and notification of ap-

plicants.

(iii) Goals and timetables. The sponsor shall establish, where required by § 30.4(d), percentage goals and timetables for admission of minorities and women (minority and nonminority) into the pool of eligibles in accordance with the provisions of sections 30.4 (d), (e), and (f).

(iv) Compliance. Determinations as to the sponsor's compliance with its obligations under these regulations shall be in accordance with the provisions of subdivision (vii) of subparagraph (1) of this paragraph (b).

(3) Selection from pool of current employees-(i) Selection. A sponsor may select apprentices from an eligibility pool of the workers already employed by the program sponsor in a manner prescribed by a collective bargaining agreement where such exists, or by the sponsor's established promotion policy. The sponsor adopting this method of selecting apprentices shall establish goals and timetables for the selection of minority and female apprentices, unless the sponsor concludes, in accordance with the provisions of § 30.4 (d), (e), and (f) that it does not have deficiencies in terms of underutilization of minorities and/or women (minority and nonminority) in the apprenticeship of journeyperson crafts represented by the program.

(ii) Compliance. Determinations as to the sponsor's compliance with its

obligations under these regulations shall be in accordance with provisions of subdivision (vii) of subparagraph (1) of this paragraph (b).

(4) Alternative selection methods—(i) Selection. A sponsor may select apprentices by means of any other method including its present selection method: Provided, That the sponsor meets the following requirements:

(A) Selection method and goals and timetables. Within 90 days of the effective date of this amendment, the sponsor shall complete development of the revised selection method it proposes to use along with the rest of its written affirmative action program including, where required by § 30.4(d), its percentage goals and timetables for the selection of minority and/or female (minority and nonminority) applicants for apprenticeship and its written analysis, upon which such goals and timetables, or lack thereof, are based. The establishment of goals and timetables shall be in accordance with the provisions of §30.4 (d), (e), and (f). The sponsor may not implement any such selection method until the Department has approved the selection method as meeting the requirements of item (B) of this subdivision and has approved the remainder of its affirmative action program including its goals and timetables. If the Department fails to act upon the selection method and the affirmative action program within 30 days of its submission, the sponsor then may implement the selection method.

(B) Qualification standards. Apprentices shall be selected on the basis of objective and specific qualification standards. Examples of such standards are fair aptitude tests, school diplomas or equivalent, occupationally essential health requirements, fair interviews. school grades, and previous work experience. Where interviews are used; adequate records shall be kept including a brief summary of each interview and the conclusions on each of the specific factors, e.g., motivation, ambition, and willingness to accept direction which are part of the total judgement. In applying any such standards, the sponsor shall meet the requirements of 41

CFR Part 60-3.

(li) Compliance. Determinations as to the sponsor's compliance with its obligations under these regulations shall be in accordance with the provisions of subdivisions (vii) of subparagraph (1) of this paragraph (b). Where a sponsor, despite its good faith efforts, fails to meet its goals and timetables within a reasonable period of time, the sponsor may be required to make appropriate changes in its affirmative action program to the extent necessary to obtain maximum effectiveness toward the attainment of its goals. The sponsor may also be required to develop and adopt an alter-

native selection method, including a method prescribed by the Department, where it is determined that the failure of the sponsor to meet its goals is attributable in substantial part to the selection method. Where the sponsor's failure to meet its goals is attributable in substantial part to its use of a qualification standard which has adversely affected the opportunities of minorities and/or women (minority and nonminority) for apprenticeship, the sponsor may be required to demonstrate that such qualification standard is directly related to job performance, in accordance with the provisions of subparagraph (1)(iii)(A) of this paragraph.

## § 30.6 Existing lists of eligibles and public notice.

A sponsor adopting a selection method under § 30.5(b) (1) or (2) and a sponsor adopting a selection method under § 30.5(b)(4) who determines that there are fewer minorities and/or women (minority and nonminority) on its existing lists of eligibles than would reasonably be expected in view of the analysis described in § 30.4(e) shall discard all existing eligibility lists upon adoption of the selection methods required by this part. New eligibility pools shall be established and lists of eligibility pools shall be posted at the sponsor's place of business. Sponsors shall establish a reasonable period of not less than 2 weeks for accepting applications for admission to an apprenticeship program. There shall be at least 30 days of public notice in advance of the earliest date for application for admission to the apprenticeship program (see § 30.4(c) on affirmative action with respect to dissemination of information). Applicants who have been placed in a pool of eligibles shall be retained on lists of eligibles subject to selection for a period of 2 years. Applicants may be removed from the list at an earlier date by their request or following their failure to respond to an apprentice job opportunity given by certified mail, return receipt requested. Applicants who have been accepted in the program shall be afforded a reasonable period of time in light of the customs and practices of the industry for reporting for work. All applicants shall be treated equally in determining such period of time. It shall be the responsibility of the applicant to keep the sponsor informed of his or her current mailing address. Upon request, a sponsor may restore to the list of eligibles applicants who have been removed from the list or who have failed to respond to an apprenticeship job opportunity.

#### § 30.7 [Reserved]

#### § 30.8 Records.

(a) Obligations of sponsors. Each sponsor shall keep adequate records

including a summary of the qualifications of each applicant, the basis for evaluation and for selection or rejection of each applicant, the records pertaining to interviews of applicants, the original application for each applicant, information relative to the operation of the apprenticeship program, including but not limited to job assignment, promotion, demotion, layoff, or termination, rates of pay, or other forms of compensation or conditions of work, hours including hours of work and, separately, hours of training provided, and any other records pertinent to a determination of compliance with these regulations, as may be required by the Department. The records pertaining to individual applicants, selected or rejected, shall be maintained in such manner as to permit identification of minority and female (minority and nonminority) participants.

(b) Affirmative action plans. Each sponsor must retain a statement of its affirmative action plan required by § 30.4 for the prompt achievement of full and equal opportunity in apprenticeship, including all data and analyses made pursuant to the requirements of § 30.4. Sponsors shall review their affirmative action plans annually and update them where necessary, including the goals and timetables.

(c) Qualification standards. Each sponsor must maintain evidence that its qualification standards have been validated in accordance with the requirements set forth in § 30.5(b).

(d) Records of State Apprenticeship Councils. State Apprenticeship Councils shall keep adequate records, including registration requirements, individual program standards and registration records, program compliance reviews and investigations, and any other records pertinent to a determination of compliance with this part, as may be required by the Department, and shall report to the Department as may be required by the Department.

(e) Maintenance of records. The records required by this part and any other information relevant to compliance with these regulations shall be maintained for 5 years and made available upon request to the Department or other authorized representative.

#### § 30.9 Compliance reviews.

(a) Conduct of compliance reviews. The Department will regularly conduct systematic reviews of apprenticeship programs in order to determine the extent to which sponsors are complying with these regulations and will also conduct compliance reviews when circumstances, including receipt of complaints not referred to a private review body pursuant to § 30.11(b)(1), so warrant, and take appropriate action regarding programs which are not in compliance with the requirements of this part. Compliance reviews

will consist of comprehensive analyses and evaluations of each aspect of the apprenticeship program, including onsite investigations and audits.

(b) Reregistration. Sponsors seeking reregistration shall be subject to a compliance review as described in paragraph (a) of this section by the Department as part of the reregistration process.

(c) New registrations. Sponsors seeking new registration shall be subject to a compliance review as described in paragraph (a) of this section by the Department as part of the registration process.

(d) Voluntary compliance. Where the compliance review indicates that the sponsor is not operating in accordance with this part, the Department shall notify the sponsor in writing of the results of the review and make a reasonable effort to secure voluntary compliance on the part of the program sponsor within a reasonable time before undertaking sanctions under § 30.13. In the case of sponsors seeking new registration, the Department will provide appropriate recommendations to the sponsor to enable it to achieve compliance for registration purposes.

# § 30.10 Noncompliance with Federal and state equal opportunity requirements.

A pattern or practice of noncompliance by a sponsor (or where the sponsor is a joint apprenticeship committee, by one of the parties represented on such committee) with Federal or state laws or regulations, requiring equal opportunity may be grounds for the imposition of sanctions in accordance with \$30.13 if such noncompliance is related to the equal employment opportunity of apprentices and/ or graduates of such an apprenticeship program under this part. The sponsor shall take affirmative steps to assist and cooperate with employers and unions in fulfilling their equal employment opportunity obligations.

#### § 30.11 Complaint procedure.

(a) Filing. (1) Any apprentice or applicant for apprenticeship who believes that he or she has been discriminated against on the basis of race. color, religion, national origin, or sex with regard to apprenticeship or that the equal opportunity standards with respect to his or her selection have not been followed in the operation of an apprenticeship program may, personally or through an authorized representative, file a complaint with the Department, or, at the apprentice's or applicant's election, with a private review body established pursuant to subparagraph (3) of this paragraph. The complaint shall be in writing and shall be signed by the complainant. It must include the name, address and telephone number of the person allegedly discriminated against, the pro-

gram sponsor involved, and a brief description of the circumstances of the failure to apply the equal opportunity standards provided for in this part.

(2) The complaint must be filed not later than 180 days from the date of the alleged discrimination or specified failure to follow the equal opportunity standards; and, in the case of complaints filed directly with review bodies designated by program sponsors to review such complaints, any referral of such complaint by the complainant to the Department must occur within the time limitation stated above or 30 days from the final decision of such review body, whichever is later. The time may be extended by the Department for good cause shown.

(3) Sponsors are encouraged to establish fair, speedy, and effective procedures for a review body to consider complaints of failure to follow the equal opportunity standards. A private review body established by the program sponsor for this purpose should number three or more responsible persons from the community serving in this capacity without compensation. Members of the review body should not be directly associated with the administration of an apprenticeship program. Sponsors may join together in establishing a review body to serve the needs of programs within the commu-

(b) Processing of complaints. (1)(1) When the sponsor has designated a review body for reviewing complaints. the Department, unless the complainant has indicated otherwise or unless the Department has determined that the review body will not effectively enforce the equal opportunity standards. shall upon receiving a complaint refer

it to the review body.

(ii) The Department shall, within 30 days following the referral of a complaint to the review body, obtain reports from the complainant and the review body as to the disposition of the complaint. If the complaint has been satisfactorily adjusted and there is no other indication of failure to apply equal opportunity standards, the case shall be closed and the parties

appropriately informed.

(iii) When a complaint has not been resolved by the review body within 90 days or where, despite satisfactory resolution of the particular complaint by the review body, there is evidence that equal opportunity practices of the apprenticeship program are not in accordance with this part, the Department may conduct such compliance review as found necessary, and will take all necessary steps to resolve the complaint.

(2) Where no review body exists, the Department may conduct such compliance review as found necessary in order to determine the facts of the complaint, and obtain such other information relating to compliance with these regulations as the circumstances warrant.

(3) Sponsors shall provide written notice of the above complaint procedure to all applicants for apprenticeship and all apprentices.

#### § 30.12 Adjustments in schedule for compliance review or complaint processing.

If, in the judgment of the Department, a particular situation warrants and requires special processing and either expedited or extended determination, it shall take the steps necessary to permit such determination if it finds that no person or party affected by such determination will be prejudiced by such special processing.

#### 8 30.13 Sanctions.

(a) Where the Department, as a result of a compliance review or other reason, determines that there is reasonable cause to believe that an apprenticeship program is not operating in accordance with this part and voluntary corrective action has not been taken by the program sponsor, the Department shall institute proceedings to deregister the program or it shall refer the matter to the Equal Employment Opportunity Commission or to the Attorney General with recommendations for the institution of a court action under Title VII of the Civil Rights Act of 1964, as amended, or to the Attorney General for other court action as authorized by law.

(b) Deregistration proceedings shall be conducted in accordance with the

following procedures:

(1) The Department shall notify the sponsor, in writing, that a determination of reasonable cause has been made under paragraph (a) of this section and that the apprenticeship program may be deregistered unless, within 15 days of the receipt of the notice, the sponsor requests a hearing. The notification shall specify the facts on which the determination is based.

(2) If within 15 days of the receipt of the notice provided for in subparagraph (1) of this paragraph the sponsor mails a request for a hearing, the Secretary shall convene a hearing in

accordance with § 30.16.

(3) The Secretary shall make a final decision on the basis of the record, which shall consist of the compliance review file and other evidence presented and, if a hearing was conducted pursuant to § 30.16, the proposed findings and recommended decision of the hearing officer. The Secretary may allow the sponsor a reasonable time to achieve voluntary corrective action. If the Secretary's decision is that the apprenticeship program is not operating in accordance with this part, the apprenticeship program shall be deregistered. In each case in which deregistration is ordered, the Secretary shall

make public notice of the order and shall notify the sponsor and the complainant, if any.

#### § 30.14 Reinstatement of program registration.

Any apprenticeship program deregistered pursuant to this part may be reinstated upon presentation of adequate evidence to the Secretary that the apprenticeship program is operating in accordance with this part.

#### § 30.15 State Apprenticeship Councils.

(a) Adoption of consistent state plans. (1) The Department shall encourage State Apprenticeship Councils to adopt and implement the require-

ments of this part.

(2) Within 60 days of the effective date of these regulations, each State Apprenticeship Council shall complete development of a revised equal opportunity plan which shall be consistent with this part. The revised State plan shall require all state apprenticeship programs registered with the State Apprenticeship Council to comply with the requirements of the revised State plan within 90 days of the effective date of these regulations. No State Apprenticeship Council shall continue to be recognized by the Department if it has not adopted within 60 days of the effective date of these regulations a plan implementing the requirements of this part.

(3) The Department retains authority to conduct compliance reviews and complaint investigations to determine whether the state plan or any state apprenticeship program registered with a State Apprenticeship Council is being administered or operated in ac-

cordance with this part.

(4) It shall be the responsibility of the State Apprenticeship Council to take the necesssary action to bring a noncomplying program into compliance with the state plan. In the event the State Apprenticeship Council fails to fulfill this responsibility, the Secretary may withdraw the recognition for Federal purposes of any or all state apprenticeship programs, in accordance with the procedures of deregistration of programs registered by the Department, or refer the matter to the Equal Employment Opportunity Commission or to the Attorney General with a recommendation for the institution of a court action under Title VII of the Civil Rights Act of 1964, as amended, or to the Attorney General for other court actions as authorized by law.

(5) Each State Apprenticeship Council shall notify the Department of any state apprenticeship program deregis-

tered by it.

(6) Any state apprenticeship program deregistered by a State Apprenticeship Council for noncompliance with requirements of this part may, within 15 days of the receipt of a notice of deregistration, appeal to the Department to set aside the determination of the State Apprenticeship Council. The Department shall make its determination on the basis of the record. The Department may grant the state program sponsor, the State Apprenticeship Council and the complainant(s), if any, the opportunity to present oral or written argument.

(b) Withdrawal of recognition, (1) Whenever the Department determines that reasonable cause exists to believe that State Apprenticeship Council has not adopted or implemented a plan in accordance with the equal opportunity requirements of this part, it shall give notice to such State Apprenticeship Council and to appropriate state sponsors of this determination, stating specifically wherein the state's plan fails to meet such requirements and that the Department proposes to withdraw recognition for Federal purposes, from the State Apprenticeship Council unless within 15 days of the receipt of the notice, the State Apprenticeship Council complies with the provisions of this part or mails a request for a hearing to the Secretary.

(2) If within 15 days of the receipt of the notice provided for in subparagraph (1) of this paragraph the State Apprenticeship Council neither complies with the provisions of this part, nor mails a request for a hearing, the Secretary shall notify the State Apprenticeship Council of the withdraw-

al of recognition.

(3) If within 15 days of the receipt of the notice provided for in subparagraph (1) of this paragraph the State Apprenticeship Council mails a request for a hearing, the Secretary shall proceed in accordance with § 30.16.

(4) If a hearing is conducted in accordance with §30.16, the Secretary upon receipt of the proposed findings and recommended decision of the hearing officer shall make a final decision whether the State Apprenticeship

Council has adopted or implemented a plan in accordance with the equal opportunity requirements of this part.

(5) If the Secretary determines to withdraw recognition, for Federal purposes, from the State Apprenticeship Council, the Secretary shall notify the State Apprenticeship Council of this determination. The Secretary shall also notify the State sponsors that within 30 days of the receipt of the notice the Department shall cease to recognize, for Federal purposes, each State apprenticeship program unless the State program sponsor requests registration with the Department. Such registration may be granted contingent upon finding that the State apprenticeship program is operating in accordance with the requirements of this part.

(6) A State Apprenticeship Council whose recognition has been withdrawn pursuant to this part may have its recognition reinstated upon presentation of adequate evidence to the Secretary that it has adopted and implemented a plan carrying out the equal opportuni-

ty requirements of this part.

#### § 30.16 Hearings.

(a) Within 10 days after receiving a request for a hearing, the Secretary shall designate a hearing officer. The hearing officer shall give reasonable notice of such hearing by certified mail, return receipt requested, to the appropriate sponsor (Federal or state registered), the State Apprenticeship Council, or both, as the case may be. Such notice shall include (1) a reasonable time and place of hearing, (2) a statement of the provisions of this part, pursuant to which the hearing is to be held, and (3) a concise statement of the matters pursuant to which the action forming the basis of the hearing is proposed to be taken.

(b) The hearing officer shall regulate the course of the hearing. Hearings shall be informally conducted. Every party shall have the right to counsel, and a fair opportunity to

present his or her case including such cross-examination as may be appropriate in the circumstances. Hearing officers shall make their proposed findings and recommended decisions to the Secretary upon the basis of the record before them.

#### § 30.17 Intimidatory or retaliatory acts.

Any intimidation, threat, coercion, or retaliation by or with the approval of any sponsor against any person for the purpose of interfering with any right or privilege secured by Title VII of the Civil Rights Act of 1964, as amended, Executive Order 11246, as amended, or because he or she has made a complaint, testified, assisted. or participated in any manner in any investigation proceeding, or hearing under this part shall be considered noncompliance with the equal opportunity standards of this part. The identity of complainants shall be kept confidential except to the extent necessary to carry out the purposes of this part, including the conduct of any investigation, hearing or judicial proceeding arising therefrom.

#### § 30.18 Nondiscrimination.

The commitments contained in the sponsor's affirmative action program are not intended and shall not be used to discriminate against any qualified applicant or apprentice on the basis of race, color, religion, national origin, or sex.

#### § 30.19 Exemptions.

Request for exemption from these regulations, or any part thereof, shall be made in writing to the Secretary and shall contain a statement of reasons supporting the request. Exemptions may be granted for good cause. State Apprenticeship Councils shall notify the Department of any such exemptions granted affecting a substantial number of employers and the reasons therefor.

(FR Doc. 78-13064 Filed 5-11 78; 8:45 am)



#### Public Law 91-596 91st Congress, S. 2193 December 29, 1970

#### An Act

84 STAT, 1590

To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health; and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Occupational Safety and Health Act of 1970".

CONGRESSIONAL FINDINGS AND PURPOSE

Occupational Safety and Health Act of 1970.

Sec. (2) The Congress finds that personal injuries and illnesses arising out of work situations impose a substantial burden upon, and are a hindrance to, interstate commerce in terms of lost production, wage loss, medical expenses, and disability compensation payments.

(b) The Congress declares it to be its purpose and policy, through the exercise of its powers to regulate commerce among the several States and with foreign nations and to provide for the general welfare, to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources

(1) by encouraging employers and employees in their efforts to reduce the number of occupational safety and health hazards at their places of employment, and to stimulate employers and employees to institute new and to perfect existing programs for providing safe and healthful working conditions;

(2) by providing that employers and employees have separate but dependent responsibilities and rights with respect to achiev-

ing safe and healthful working conditions;

(3) by authorizing the Secretary of Labor to set mandatory occupational safety and health standards applicable to businesses affecting interstate commerce, and by creating an Occupational Safety and Health Review Commission for carrying out adjudicatory functions under the Act;

(4) by building upon advances already made through employer and employee initiative for providing safe and healthful working

conditions;

(5) by providing for research in the field of occupational safety and health, including the psychological factors involved. and by developing innovative methods, techniques, and approaches for dealing with occupational safety and health problems;

(6) by exploring ways to discover latent diseases, establishing causal connections between diseases and work in environmental conditions, and conducting other research relating to health problems, in recognition of the fact that occupational health standards present problems often different from those involved in occupational safety;

(7) by providing medical criteria which will assure insofar as practicable that no employee will suffer diminished health, functional capacity, or life expectancy as a result of his work

experience; (8) by providing for training programs to increase the number and competence of personnel engaged in the field of occupational safety and health;

84 STAT. 1591

(9) by providing for the development and promulgation of occupational safety and health standards;

(10) by providing an effective enforcement program which shall include a prohibition against giving advance notice of any inspection and sanctions for any individual violating this prohibition;

(11) by encouraging the States to assume the fullest responsibility for the administration and enforcement of their occupational safety and health laws by providing grants to the States to assist in identifying their needs and responsibilities in the area of occupational safety and health, to develop plans in accordance with the provisions of this Act, to improve the administration and enforcement of State occupational safety and health laws, and to conduct experimental and demonstration projects in connection therewith

(12) by providing for appropriate reporting procedures with respect to occupational safety and health which procedures will help achieve the objectives of this Act and accurately describe the nature of the occupational safety and health problem;

(13) by encouraging joint labor-management efforts to reduce injuries and disease arising out of employment.

#### DEFINITIONS

Sec. 3. For the purposes of this Act-

 The term "Secretary" mean the Secretary of Labor.
 The term "Commission" means the Occupational Safety and Health Review Commission established under this Act.

(3) The term "commerce" means trade, traffic, commerce, transportation, or communication among the several States, or between a State and any place outside thereof, or within the District of Columbia, or a possession of the United States (other than the Trust Territory of the Pacific Islands), or between points in the

same State but through a point outside thereof.

(4) The term "person" means one or more individuals, partnerships, associations, corporations, business trusts, legal representa-

tives, or any organized group of persons.

(5) The term "employer" means a person engaged in a business affecting commerce who has employees, but does not include the United States or any State or political subdivision of a State.

(6) The term "employee" means an employee of an employer who is employed in a business of his employer which affects

(7) The term "State" includes a State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Trust Territory of the Pacific Islands.

(8) The term "occupational safety and health standard" means a standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment.

(9) The term "national consensus standard" means any occupational safety and health standard or modification thereof which (1), has been adopted and promulgated by a nationally recognized standards-producing organization under procedures whereby it can be determined by the Secretary that persons interested

and affected by the scope or provisions of the standard have reached substantial agreement on its adoption. (2) was formulated in a manner which afforded an opportunity for diverse views to be considered and (3) has been designated as such a standard by the Secretary, after consultation with other appropriate Federal agencies.

(10) The term "established Federal standard" means any operative occupational safety and health standard established by any agency of the United States and presently in effect, or contained in any Act of Congress in force on the date of enactment of this

(11) The term "Committee" means the National Advisory Committee on Occupational Safety and Health established under this Act.

(12) The term "Director" means the Director of the National Institute for Occupational Safety and Health.

(13) The term "Institute" means the National Institute for Occupational Safety and Health established under this Act.

(14) The term "Workmen's Compensation Commission" means the National Commission on State Workmen's Compensation Laws established under this Act.

#### APPLICABILITY OF THIS ACT

Sec. 4. (a) This Act shall apply with respect to employment performed in a workplace in a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, Guam, the Trust Territory of the Pacific Islands, Wake Island, Outer Continental Shelf lands defined in the Outer Continental Shelf Lands Act, Johnston Island, and the Canal Zone. The Secretary of the Interior shall, by regulation, provide for judicial enforcement of this 43 150 1331 Act by the courts established for areas in which there are no United note. States district courts having jurisdiction.

(b) (1) Nothing in this Act shall apply to working conditions of employees with respect to which other Federal agencies, and State agencies acting under section 274 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2021), exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health.

(2) The safety and health standards promulgated under the Act of June 30, 1936, commonly known as the Walsh-Healey Act (41 U.S.C. 35 et seq.), the Service Contract Act of 1965 (41 U.S.C. 351 et seq.), Public Law 91-54, Act of August 9, 1969 (40 U.S.C. 333), Public Law 85-742, Act of August 23, 1958 (33 U.S.C. 941), and the National Foundation on Arts and Humanities Act (20 U.S.C. 951 et seq.) are superseded on the effective date of corresponding standards, promulgated under this Act, which are determined by the Secretary to be more effective. Standards issued under the laws listed in this paragraph and in effect on or after the effective date of this Act shall be deemed to be occupational safety and health standards issued under this Act, as well as under such other Acts.

(3) The Secretary shall, within three years after the effective date of this Act, report to the Congress his recommendations for legislation to avoid unnecessary duplication and to achieve coordination between this Act and other Federal laws.

67 Stat. 462.

73 Stat. 608.

49 Stat. 2036. 79 Stat. 1034. 83 Stat. 96. 72 Stat. 835. 79 Stat. 845; Ante, p. 443.

Report to Congress.

(4) Nothing in this Act shall be construed to supersede or in any manner affect any workmen's compensation law or to enlarge or duninish or affect in any other manner the common law or statutory rights, duties, or liabilities of employers and employees under any law with respect to injuries, diseases, or death of employees arising out of, or in the course of, employment.

#### DUTIES

Sec. 5. (a) Each employer—

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards

promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

#### OCCUPATIONAL SAFETY AND HEALTH STANDARDS

HO Stat. 381; 81 Stat. 195. 5 USC 500.

84 STAT. 1593

SEC. 6. (a) Without regard to chapter 5 of title 5, United States Code, or to the other subsections of this section, the Secretary shall, as soon as practicable during the period beginning with the effective date of this Act and ending two years after such date, by rule promulgate as an occupational safety or health standard any national consensus standard, and any established Federal standard, unless he determines that the promulgation of such a standard would not result in improved safety or health for specifically designated employees. In the event of conflict among any such standards, the Secretary shall promulgate the standard which assures the greatest protection of the safety or health of the affected employees.

(b) The Secretary may by rule promulgate, modify, or revoke any occupational safety or health standard in the following manner:

(1) Whenever the Secretary, upon the basis of information submitted to him in writing by an interested person, a representative of any organization of employers or employees, a nationally recognized standards-producing organization, the Secretary of Health, Education, and Welfare, the National Institute for Occupational Safety and Health, or a State or political subdivision, or on the basis of information developed by the Secretary or otherwise available to him, determines that a rule should be promulgated in order to serve the objectives of this Act, the Secretary may request the recommendations of an advisory committee appointed under section 7 of this Act. The Secretary shall provide such an advisory committee with any proposals of his own or of the Secretary of Health, Education, and Welfare, together with all pertinent factual information developed by the Secretary or the Secretary of Health, Education, and Welfare, or otherwise available, including the results of research, demonstrations, and experiments. An advisory committee shall submit to the Secretary its recommendations regarding the rule to be promulgated within ninety days from the date of its appointment or within such longer or shorter period as may be prescribed by the Secretary, but in no event for a period which is longer than two hundred and seventy days.

Advisory committee recommendations.

(2) The Secretary shall publish a proposed rule promulgating, modifying, or revoking an occupational safety or health standard in the Federal Register and shall afford interested persons a period of thirty days after publication to submit written data or comments. Where an advisory committee is appointed and the Secretary determines that a rule should be issued, he shall publish the proposed rule within sixty days after the submission of the advisory committee's recommendations or the expiration of the period prescribed by the Secretary for such submission.

(3) On or before the last day of the period provided for the submission of written data or comments under paragraph (2), any interested person may file with the Secretary written objections to the proposed rule, stating the grounds therefor and requesting a public hearing on such objections. Within thirty days after the last day for filing such objections, the Secretary shall publish in the Federal Register a notice specifying the occupational safety or health standard to which objections have been filed and a hearing requested, and specify-

ing a time and place for such hearing.

(4) Within sixty days after the expiration of the period provided for the submission of written data or comments under paragraph (2). or within sixty days after the completion of any hearing held under paragraph (3), the Secretary shall issue a rule promulgating, modifying, or revoking an occupational safety or health standard or make a determination that a rule should not be issued. Such a rule may contain a provision delaying its effective date for such period (not in excess of ninety days) as the Secretary determines may be necessary to insure that affected employers and employees will be informed of the existence of the standard and of its terms and that employers affected are given an opportunity to familiarize themselves and their employees with the existence of the requirements of the standard.

(5) The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life. Development of standards under this subsection shall be based upon research, demonstrations, experiments, and such other information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws. Whenever practicable, the standard promulgated shall be expressed in terms of

objective criteria and of the performance desired.

6) (A) Any employer may apply to the Secretary for a temporary order granting a variance from a standard or any provision thereof promulgated under this section. Such temporary order shall be granted only if the employer files an application which meets the requirements of clause (B) and establishes that (i) he is unable to comply with a standard by its effective date because of unavailability of professional or technical personnel or of materials and equipment needed to come into compliance with the standard or because necessary construction or alteration of facilities cannot be completed by the effective date, (ii) he is taking all available steps to safeguard his employees against the hazards covered by the standard, and (iii) he has an effective program for coming into compliance with the standard as quickly as

Publication in Federal Register.

Hearing, notice.

Publication in Federal Register.

Toxic material..

VERIANCE order.

Notice, hearing.

Renewal.

Time limitation.

practicable. Any temporary order issued under this paragraph shall prescribe the practices, means, methods, operations, and processes which the employer must adopt and use while the order is in effect and state in detail his program for coming into compliance with the standard. Such a temporary order may be granted only after notice to employees and an opportunity for a hearing: Provided. That the Secretary may issue one interim order to be effective until a decision is made on the basis of the hearing. No temporary order may be in effect for longer than the period needed by the employer to achieve compliance with the standard or one year, whichever is shorter, except that such an order may be renewed not more than twice (I) so long as the requirements of this paragraph are met and (II) if an application for renewal is filed at least 90 days prior to the expiration date of the order. No interim renewal of an order may remain in effect for longer than 180 days.

(B) An application for a temporary order under this paragraph

(6) shall contain:

(i) a specification of the standard or portion thereof from

which the employer seeks a variance,

(ii) a representation by the employer, supported by representations from qualified persons having firsthand knowledge of the facts represented, that he is unable to comply with the standard or portion thereof and a detailed statement of the reasons therefor,

(iii) a statement of the steps he has taken and will take (with specific dates) to protect employees against the hazard covered by

(iv) a statement of when he expects to be able to comply with the standard and what steps he has taken and what steps he will take (with dates specified) to come into compliance with the standard, and

(v) a certification that he has informed his employees of the application by giving a copy thereof to their authorized representative, posting a statement giving a summary of the appliention and specifying where a copy may be examined at the place or places where notices to employees are normally posted, and by other appropriate means.

A description of how employees have been informed shall be contained in the certification. The information to employees shall also inform them of their right to petition the Secretary for a hearing.

(C) The Secretary is authorized to grant a variance from any standard or portion thereof whenever he determines, or the Secretary, of Health, Education, and Welfare certifies, that such variance is necessary to permit an employer to participate in an experiment approved by him or the Secretary of Health, Education, and Welfare designed to demonstrate or validate new and improved techniques to

safeguard the health or safety of workers.

Protective equipment,

Labels, etc.

etc.

(7) Any standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure. Where appropriate, such standard shall also prescribe suitable protective equipment and control or technological procedures to be used in connection with such hazards and shall provide for monitoring or measuring employee exposure at such locations and intervals, and in such manner as may be necessary for the protection of employees. In

danger.

44 STAT. 1596 Medical

addition, where appropriate, any such standard shall prescribe the type and frequency of medical examinations or other tests which shall be made available, by the employer or at his cost, to employees exposed to such hazards in order to most effectively determine whether the health of such employees is adversely affected by such exposure. In the event such medical examinations are in the nature of research, as determined by the Secretary of Health, Education, and Welfare, such examinations may be furnished at the expense of the Secretary of Health, Education, and Welfare. The results of such examinations or tests shall be furnished only to the Secretary or the Secretary of Health, Education, and Welfare, and, at the request of the employee, to his physician. The Secretary, in consultation with the Secretary of Health, Education, and Welfare, may by rule promulgated pursuant to section 553 of title 5, United States Code, make appropriate modifications in the foregoing requirements relating to the use of labels or other forms of warning, monitoring or measuring, and medical examinations, as may be warranted by experience, information, or medical or technological developments acquired subsequent to the promulga-

examinations.

80 Stat. 161.

Harlination in Federal

Register.

Temporary

standar:.

tion of the relevant standard. (8) Whenever a rule promulgated by the Secretary differs substantially from an existing national co-sensus standard, the Secretary

shall, at the same time, publish in the Federal Register a statement of the reasons why the rule as adopted will better effectuate the pur-

poses of this Act than the national consensus standard.

(c) (1) The Secretary shall provide, without regard to the requirements of chapter 5, title 5, United States Code, for an emergency temporary standard to take immediate effect upon publication in the Federal Register if he determines (A) that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and (B) that such emergency standard is necessary to protect employees from such

Publication in Federal Register. 80 Stat. bel; 41 Stat. 195.

(2) Such standard shall be effective until superseded by a standard promulgated in accordance with the procedures prescribed in paragraph (3) of this subsection.

limitation.

(3) Upon publication of such standard in the Federal Register the Secretary shall commence a proceeding in accordance with section 6(b) of this Act, and the standard as published shall also serve as a proposed rule for the proceeding. The Secretary shall promulgate a standard under this paragraph no later than six months after publication of the emergency standard as provided in paragraph (2) of this subsection.

Variance rule.

(d) Any affected employer may apply to the Secretary for a rule or order for a variance from a standard promulgated under this section. Affected employees shall be given notice of each such application and an opportunity to participate in a hearing. The Secretary shall issue such rule or order if he determines on the record, after opportunity for an inspection where appropriate and a hearing, that the proponent of the variance has demonstrated by a preponderance of the evidence that the conditions, practices, means, methods, operations, or processes used or proposed to be used by an employer will provide employment and places of employment to his employees which are as safe and healthful as those which would prevail if he complied with the standard. The rule or order so issued shall prescribe the conditions the employer must maintain, and the practices, means, methods, operations, and processes which he must adopt and utilize to the extent they

differ from the standard in question. Such a rule or order may be modified or revoked upon application by an employer, employees, or by the Secretary on his own motion, in the manner prescribed for its issuance under this subsection at any time after six months from its issuance.

Publication in Federal Register. (e) Whenever the Secretary promulgates any standard, makes any rule, order, or decision, grants any exemption or extension of time, or compromises, mitigates, or settles any penalty assessed under this Act, lie shall include a statement of the reasons for such action, which shall be published in the Federal Register.

Petition for judicial review.

(f) Any person who may be adversely affected by a standard issued under this section may at any time prior to the sixtleth day after such standard is promulgated file a petition challenging the validity of such standard with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such standard. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary. The filing of such petition shall not, unless otherwise ordered by the court, operate as a stay of the standard. The determinations of the Secretary shall be conclusive if supported by substantial evidence in the record considered as a whole.

(g) In determining the priority for establishing standards under this section, the Secretary shall give due regard to the urgency of the need for mandatory safety and health standards for particular industries, trades, crafts, occupations, businesses, workplaces or work environments. The Secretary shall also give due regard to the recommendations of the Secretary of Health, Education, and Welfare regarding the need for mandatory standards in determining the pri-

ority for establishing such standards.

#### ADVISORY COMMITTEES; ADMINISTRATION

Establishment; membership.

80 Stat. 378. 5 USC 101. Sec. 7. (a) (1) There is hereby established a National Advisory Committee on Occupational Safety and Health consisting of twelve members appointed by the Secretary, four of whom are to be designated by the Secretary of Health, Education, and Welfare, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and composed of representatives of management, labor, occupational safety and occupational health professions, and of the public. The Secretary shall designate one of the public members as Chairman. The members shall be selected upon the basis of their experience and competence in the field of occupational safety and health.

(2) The Committee shall advise, consult with, and make recommendations to the Secretary and the Secretary of Health, Education, and Welfare on matters relating to the administration of the Act. The Committee shall hold no fewer than two meetings during each calendar year. All meetings of the Committee shall be open to the public and a transcript shall be kept and made available for public inspection.

Public transcript.

(3) The members of the Committee shall be compensated in accordance with the provisions of section 3109 of title 5, United States Code.

80 Stat. 416.

(4) The Secretary shall furnish to the Committee an executive secretary and such secretarial, clerical, and other services as are deemed necessary to the conduct of its business.

(b) An advisory committee may be appointed by the Secretary to assist him in his standard-setting functions under section 6 of this Act. Each such committee shall consist of not more than fifteen members

and shall include as a member one or more designees of the Secretary of Health, Education, and Welfare, and shall include among its members an equal number of persons qualified by experience and affiliation to present the viewpoint of the employers involved, and of persons similarly qualified to present the viewpoint of the workers involved. as well as one or more representatives of health and safety agencies of the States. An advisory committee may also include such other persons as the Secretary may appoint who are qualified by knowledge and experience to make a useful contribution to the work of such committee, including one or more representatives of professional organizations of technicians or professionals specializing in occupational safety or health, and one or more representatives of nationally recognized standards-producing organizations, but the number of persons so appointed to any such advisory committee shall not exceed the number appointed to such committee as representatives of Federal and State agencies. Persons appointed to advisory committees from private life shall be compensated in the same manner as consultants or experts under section 3109 of title 5. United States Code. The Secre- 80 Stat. 416. tury shall pay to any State which is the employer of a member of such a committee who is a representative of the health or safety agency of that State, reimbursement sufficient to cover the actual cost to the State resulting from such representative's membership on such committee. Any meeting of such committee shall be open to the public Recordseeping. and an accurate record shall be kept and made available to the public. No member of such committee (other than representatives of employers and employees) shall have an economic interest in any proposed

(c) In carrying out his responsibilities under this Act, the Secretary

is authorized to-

(1) use, with the consent of any Federal agency, the services, facilities, and personnel of such agency, with or without reimbursement, and with the consent of any State or political subdivision thereof, accept and use the services, facilities, and personnel of any agency of such State or subdivision with reimbursement;

(2) employ experts and consultants or organizations thereof as authorized by section 3109 of title 5, United States Code, except that contracts for such employment may be renewed annually; compensate individuals so employed at rates not in excess of the rate specified at the time of service for grade GS-18 under section 5332 of title 5, United States Code, including traveltime, and Ante, p. 198-1. allow them while away from their homes or regular places of business, travel expenses (including per diem in lieu of subsistence) as authorized by section 5703 of title 5, United States Code, for persons in the Government service employed intermittently, while so 83 Stat. 190. employed.

80 Stat. 499;

#### INSPECTIONS, INVESTIGATIONS, AND RECORDS EEPING

SEC. 8. (a) In order to carry out the purposes of this Act, the Secretary, upon presenting appropriate credentials to the owner, operator, or agent in charge, is authorized-

(1) to enter without delay and at reasonable times any factory, plant, establishment, construction site, or other area, workplace or environment where work is performed by an employee of an employer; and

(2) to inspect and investigate during regular working hours and at other reasonable times, and within reasonable limits and in a reasonable manner, any such place of employment and all pertinent conditions, structures, machines, apparatus, devices, equipment, and materials therein, and to question privately any such employer, owner, operator, agent or employee.

Subpoens power. (b) In making his inspections and investigations under this Act the Secretary may require the attendance and testimony of witnesses and the production of evidence under oath. Witnesses shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of a contumacy, failure, or refusal of any person to obey such an order, any district court of the United States or the United States courts of any territory or possession, within the jurisdiction of which such person is found, or resides or transacts business, upon the application by the Secretary, shall have jurisdiction to issue to such person an order requiring such person to appear to produce evidence if, as, and when so ordered, and to give testimony relating to the matter under investigation or in question, and any failure to obey such order of the court may be punished by said court as a contempt thereof.

Recordkeeping

Work-related

deaths, etc.; reports.

(c) (1) Each employer shall make, keep and preserve, and make available to the Secretary or the Secretary of Health, Education, and Welfare, such records regarding his activities relating to this Act as the Secretary, in cooperation with the Secretary of Health, Education, and Welfare, may prescribe by regulation as necessary or appropriate for the enforcement of this Act or for developing information regarding the causes and prevention of occupational accidents and illnesses. In order to carry out the provisions of this paragraph such regulations may include provisions requiring employers to conduct periodic inspections. The Secretary shall also issue regulations requiring that employers, through posting of notices or other appropriate means, keep their employees informed of their protections and obligations under this Act, including the provisions of applicable standards.

(2) The Secretary, in cooperation with the Secretary of Health, Education, and Welfare, shall prescribe regulations requiring employers to maintain accurate records of, and to make periodic reports on, work-related deaths, injuries and illnesses other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or

transfer to another job.

(3) The Secretary, in cooperation with the Secretary of Health, Education, and Welfare, shall issue regulations requiring employers to maintain accurate records of employee exposures to potentially toxic materials or harmful physical agents which are required to be monitored or measured under section 6. Such regulations shall provide employees or their representatives with an opportunity to observe such monitoring or measuring, and to have access to the records thereof. Such regulations shall also make appropriate provision for each employee or former employee to have access to such records as will indicate his own exposure to toxic materials or harmful physical agents. Each employer shall promptly notify any employee who has been or is being exposed to toxic materials or harmful physical agents in concentrations or at levels which exceed those prescribed by an applicable occupational safety and health standard promulgated under section 6, and shall inform any employee who is being thus exposed of the corrective action being taken.

(d) Any information obtained by the Secretary, the Secretary of Health, Education, and Welfare, or a State agency under this Act shall be obtained with a minimum burden upon employers, especially those operating small businesses. Unnecessary duplication of efforts in obtaining information shall be reduced to the maximum extent

(e) Subject to regulations issued by the Secretary, a representative of the employer and a representative authorized by his employees shall be given an opportunity to accompany the Secretary or his authorized representative during the physical inspection of any workplace under subsection (a) for the purpose of aiding such inspection. Where there is no authorized employee representative, the Secretary or his authorized representative shall consult with a reasonable number of employees concerning matters of health and safety in the workplace.

(f) (1) Any employees or representative of employees who believe that a violation of a safety or health standard exists that threatens physical harm, or that an imminent danger exists, may request an inspection by giving notice to the Secretary or his authorized representative of such violation or danger. Any such notice shall be reduced to writing, shall set forth with reasonable particularity the grounds for the notice, and shall be signed by the employees or representative of employees, and a copy shall be provided the employer or his agent no later than at the time of inspection, except that, upon the request of the person giving such notice, his name and the names of individual employees referred to therein shall not appear in such copy or on any record published, released, or made available pursuant to subsection (g) of this section. If upon receipt of such notification the Secretary determines there are reasonable grounds to believe that such violation or danger exists, he shall make a special inspection in accordance with the provisions of this section as soon as practicable, to determine if such violation or danger exists. If the Secretary determines there are no reasonable grounds to believe that a violation or danger exists he shall notify the employees or representative of the employees in writing of such determination.

(2) Prior to or during any inspection of a workplace, any employees or representative of employees employed in such workplace may notify the Secretary or any representative of the Secretary responsible for conducting the inspection, in writing, of any violation of this Act which they have reason to believe exists in such workplace. The Secretary shall, by regulation, establish procedures for informal review of any refusal by a representative of the Secretary to issue a citation with respect to any such alleged violation and shall furnish the employees or representative of employees requesting such review a written statement of the reasons for the Secretary's final disposition

of the case

(g) (1) The Secretary and Secretary of Health, Education, and Reports, Welfare are authorized to compile, analyze, and publish, either in publication. summary or detailed form, all reports or information obtained under

(2) The Secretary and the Secretary of Health, Education, and Rules and Welfare shall each prescribe such rules and regulations as he may regulations. deem necessary to carry out their responsibilities under this Act, including rules and regulations dealing with the inspection of an employer's establishment.

Limitation.

#### CITATIONS

Sec. 9. (a) If, upon inspection or investigation, the Secretary or his authorized representative believes that an employer has violated a requirement of section 5 of this Act, of any standard, rule or order promulgated pursuant to section 6 of this Act, or of any regulations prescribed pursuant to this Act, he shall with reasonable promptness issue a citation to the employer. Each citation shall be in writing and shall describe with particularity the nature of the violation, including a reference to the provision of the Act, standard, rule, regulation, or order alleged to have been violated. In addition, the citation shall fix a reasonable time for the abatement of the violation. The Secretary may prescribe procedures for the issuance of a notice in lieu of a citation with respect to de minimis violations which have no direct or immediate relationship to safety or health.

(b) Each citation issued under this section, or a copy or copies thereof, shall be prominently posted, as prescribed in regulations assued by the Secretary, at or near each place a violation referred to in

the citation occurred.

(c) No citation may be issued under this section after the expiration of six months following the occurrence of any violation.

#### PROCEDURE FOR ENPORCEMENT

SEC. 10. (a) If, after an inspection or investigation, the Secretary issues a citation under section 9(a), he shall, within a reasonable time after the termination of such inspection or investigation, notify the employer by certified mail of the penalty, if any, proposed to be assessed under section 17 and that the employer has fifteen working days within which to notify the Secretary that he wishes to contest the citation or proposed assessment of penalty. If, within fifteen working days from the receipt of the notice issued by the Secretary tho employer fails to notify the Secretary that he intends to contest the citation or proposed assessment of penalty, and no notice is filed by any employee or representative of employees under subsection (c) within such time, the citation and the assessment, as proposed, shall be deemed a final order of the Commission and not subject to review by

(b) If the Secretary has reason to believe that an employer has failed to correct a violation for which a citation has been issued within the period permitted for its correction (which period shall not begin to run until the entry of a final order by the Commission in the case of any review proceedings under this section initiated by the employer in good faith and not solely for delay or avoidance of penalties), the Secretary shall notify the employer by certified mail of such failure and of the penalty proposed to be assessed under section 17 by reason of such failure, and that the employer has fifteen working days within which to notify the Secretary that he wishes to contest the Secretary's notification or the proposed assessment of penalty. If, within fifteen working days from the receipt of notification issued by the Secretary, the employer fails to notify the Secretary that he intends to contest the notification or proposed assessment of penalty, the notification and assessment, as proposed, shall be deemed a final order of the Commission and not subject to review by any court or agency.

(c) If an employer notifies the Secretary that he intends to contest a citation issued under section 9(a) or notification issued under subsection (a) or (b) of this section, or if, within fifteen working days

of the issuance of a citation under section 9(a), any employee or representative of employees files a notice with the Secretary alleging that the period of time fixed in the citation for the abatement of the violation is unreasonable, the Secretary shall immediately advise the Commission of such notification, and the Commission shall afford an opportunity for a hearing (in accordance with section 554 of title 5, United States Code, but without regard to subsection (a) (3) of such section). The Commission shall thereafter issue an order, based on findings of fact, affirming, modifying, or vacating the Secretary's citation or proposed penalty, or directing other appropriate relief, and such order shall become final thirty days after its issuance. Upon a showing by an employer of a good faith effort to comply with the abatement requirements of a citation, and that abatement has not been completed because of factors beyond his reasonable control, the Secretary, after an opportunity for a hearing as provided in this subsection, shall issue an order affirming or modifying the abatement requirements in such citation. The rules of procedure prescribed by the Commission shall provide affected employees or representatives of affected employees an opportunity to participate as parties to hearings under this subsection.

80 Stat. 384.

JUDICIAL REVIEW

Sec. 11. (a) Any person adversely affected or aggrieved by an order of the Commission issued under subsection (c) of section 10 may obtain a review of such order in any United States court of appeals for the circuit in which the violation is alleged to have occurred or where the employer has its principal office, or in the Court of Appeals for the District of Columbia Circuit, by filing in such court within sixty days following the issuance of such order a written petition praying that the order be modified or set aside. A copy of such petition shall be forthwith transmitted by the clerk of the court to the Commission and to the other parties, and thereupon the Commission shall file in the court the record in the proceeding as provided in section 2112 of title 28, United States Code. Upon such filing, the court shall have jurisdiction of the proceeding and of the question determined therein, and shall have power to grant such temporary relief or restraining order as it deems just and proper, and to make and enter upon the pleadings, testimony, and proceedings set forth in such record a decree affirming, modifying, or setting aside in whole or in part, the order of the Commission and enforcing the same to the extent that such order is affirmed or modified. The commencement of proceedings under this subsection shall not, unless ordered by the court, operate as a stay of the order of the Commission. No objection that has not been urged before the Commission shall be considered by the court, unless the failure or neglect to urge such objection shall be excused because of extraordinary circumstances. The findings of the Commission with respect to questions of fact, if supported by substantial evidence on the record considered as a whole, shall be conclusive. If any party shall apply to the court for leave to adduce additional evidence and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the hearing before the Commission, the court may order such additional evidence to be taken before the Commission and to be made a part of the record. The Commission may modify its findings as to the facts, or make new findings, by reason of additional evidence so taken and filed, and it shall file such modified or new findings, which findings with respect to questions of fact, if supported by substantial evi-

72 Stat. 941; 80 Stat. 1323. dence on the record considered as a whole, shall be conclusive, and its recommendations, if any, for the modification or setting aside of its original order. Upon the filing of the record with it, the jurisdiction of the court shall be exclusive and its judgment and decree shall be final, except that the same shall be subject to review by the Supreme Court of the United States, as provided in section 1254 of title 28, United States Code. Petitions filed under this subsection shall be heard expeditiously.

62 Stat. 928.

(b) The Secretary may also obtain review or enforcement of any final order of the Commission by filing a petition for such relief in the United States court of appeals for the circuit in which the alleged violation occurred or in which the employer has its principal office, and the provisions of subsection (a) shall govern such proceedings to the extent applicable. If no petition for review, as provided in subsection (a), is filed within sixty days after service of the Commission's order, the Commission's findings of fact and order shall be conclusive in connection with any petition for enforcement which is filed by the Secretary after the expiration of such sixty-day period. In any such case, as well as in the case of a noncontested citation or notification by the Secretary which has become a final order of the Commission under subsection (a) or (b) of section 10, the clerk of the court, unless otherwise ordered by the court, shall forthwith enter a decree enforcing the order and shall transmit a copy of such decree to the Secretary and the employer named in the petition. In any concempt proceeding brought to enforce a decree of a court of appeals entered pursuant to this subsection or subsection (a), the court of appeals may assess the penalties provided in section 17, in addition to invoking any

(c) (1) No person shall discharge or in any manner discriminate against any employee because such employee has filed any complaint or instituted or caused to be instituted any proceeding under or related to this Act or has testified or is about to testify in any such proceeding or because of the exercise by such employee on behalf of himself or others

of any right afforded by this Act.

other available remedies.

(2) Any employee who believes that he has been discharged or otherwise discriminated against by any person in violation of this subsection may, within thirty days after such violation occurs, file a complaint with the Secretary alleging such discrimination. Upon receipt of such complaint, the Secretary shall cause such investigation to be made as he deems appropriate. If upon such investigation, the Secretary determines that the provisions of this subsection have been violated, he shall bring an action in any appropriate United States district court against such person. In any such action the United States district courts shall have jurisdiction, for cause shown to restrain violations of paragraph (1) of this subsection and order all appropriate relief including rehiring or reinstatement of the employee to his former position with back pay.

. (3) Within 90 days of the receipt of a complaint filed under the subsection the Secretary shall notify the complainant of his determina-

tion under paragraph 2 of this subsection.

#### THE OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

Establishment; membership.

SEC. 12. (a) The Occupational Safety and Health Review Commission is hereby established. The Commission shall be composed of three members who shall be appointed by the President, by and with the advice and consent of the Senate, from among persons who by reason

of training, education, or experience are qualified to carry out the functions of the Commission under this Act. The President shall designate one of the members of the Commission to serve as Chairman.

(b) The terms of members of the Commission shall be six years Terms. except that (1) the members of the Commission first taking office shall serve, as designated by the President at the time of appointment, one for a term of two years, one for a term of four years, and one for a term of six years, and (2) a vacancy caused by the death, resignation, or removal of a member prior to the expiration of the term for which he was appointed shall be filled only for the remainder of such unexpired term. A member of the Commission may be removed by the President for inefficiency, neglect of duty, or malfensance in office.

(c) (1) Section 5314 of title 5, United States Code, is amended by 80 Stat. 460,

adding at the end thereof the following new paragraph:

"(57) Chairman, Occupational Safety and Health Review

Commission." (2) Section 5315 of title 5, United States Code, is amended by add- ante, p. 776, ing at the end thereof the following new paragraph:

"(94) Members, Occupational Safety and Health Review

Commission. (d) The principal office of the Commission shall be in the District Location. of Columbia. Whenever the Commission deems that the convenience of the public or of the parties may be promoted, or delay or expense may be minimized, it may hold hearings or conduct other proceedings

at any other place. (e) The Chairman shall be responsible on behalf of the Commission for the administrative operations of the Commission and shall appoint such hearing examiners and other employees as he deems necessary to assist in the performance of the Commission's functions and to fix their compensation in accordance with the provisions of chapter 51 and subchapter III of chapter 53 of title 5, United States Code, 5 USC 5101, relating to classification and General Schedule pay rates: Provided, That assignment, removal and compensation of hearing examiners Ante, p. 198-1. shall be in accordance with sections 3105, 3344, 5362, and 7521 of title 5,

United States Code. (f) For the purpose of carrying out its functions under this Act, two Quorum. members of the Commission shall constitute a quorum and official action can be taken only on the affirmative vote of at least two

members (g) Every official act of the Commission shall be entered of record, Public records. and its hearings and records shall be open to the public. The Commission is authorized to make such rules as are necessary for the orderly transaction of its proceedings. Unless the Commission has adopted a different rule, its proceedings shall be in accordance with the Federal Rules of Civil Procedure.

(h) The Commission may order testimony to be taken by deposition in any proceedings pending before it at any state of such proceeding. Any person may be compelled to appear and depose, and to produce books, papers, or documents, in the same manner as witnesses may be compelled to appear and testify and produce like documentary evidence before the Commission. Witnesses whose depositions are taken under this subsection, and the persons taking such depositions, shall be entitled to the same fees as are paid for like services in the courts of the United States.

(i) For the purpose of any proceeding before the Commission, the provisions of section 11 of the National Labor Relations Act (29 U.S.C. 161) are hereby made applicable to the jurisdiction and powers 61 Stat. 150; of the Commission.

28 USC app.

Ante, p. 930.

Report.

(j) A hearing examiner appointed by the Commission shall hear, and make a determination upon, any proceeding instituted before the Commission and any motion in connection therewith, assigned to such hearing examiner by the Chairman of the Commission, and shall make a report of any such determination which constitutes his final disposition of the proceedings. The report of the hearing examiner shall become the final order of the Commission within thirty days after such report by the hearing examiner, unless within such period any Commission member has directed that such report shall be reviewed by the Commission.

(k) Except as otherwise provided in this Act, the hearing examiners shall be subject to the laws governing employees in the classified civil service, except that appointments shall be made without regard to section 5108 of title 5, United States Code. Each hearing examiner shall receive compensation at a rate not less than that prescribed for GS-16 under section 5332 of title 5, United States Code.

90 Stat. 453.

28 USC app.

Ante, p. 198-1.

#### PROCEDURES TO COUNTERACT IMMINENT DANGERS

SEC. 13. (a) The United States district courts shall have jurisdiction, upon petition of the Secretary, to restrain any conditions or practices in any place of employment which are such that a danger exists which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated through the enforcement procedures otherwise provided by this Act. Any order issued under this section may require such steps to be taken as may be necessary to avoid, correct, or remove such imminent danger and prohibit the employment or presence of any individual in locations or under conditions where such imminent danger exists, except individuals whose presence is necessary to avoid, correct, or remove such imminent danger or to maintain the capacity of a continuous process operation to resume normal operations without a complete cessation of operations, or where a cessation of operations is necessary, to permit such to be accomplished in a safe and orderly

manner.
(b) Upon the filing of any such petition the district court shall have jurisdiction to grant such injunctive relief or temporary restraining order pending the outcome of an enforcement proceeding pursuant to this Act. The proceeding shall be as provided by Rule 65 of the Federnl Rules, Civil Procedure, except that no temporary restraining order issued without notice shall be effective for a period longer than

five days.

(c) Whenever and as soon as an inspector concludes that conditions or practices described in subsection (a) exist in any place of employment, he shall inform the affected employees and employers of the danger and that he is recommending to the Secretary that relief be

sought.

(d) If the Secretary arbitrarily or capriciously fails to seek relief under this section, any employee who may be injured by reason of such failure, or the representative of such employees, might bring an action against the Secretary in the United States district court for the district in which the imminent danger is alleged to exist or the employer has its principal office, or for the District of Columbia, for a writ of mandamus to compel the Secretary to seek such an order and for such further relief as may be appropriate.

D38

#### REPRESENTATION IN CIVIL LITIGATION

SEC. 14. Except as provided in section 518(a) of title 28, United States Code, relating to litigation before the Supreme Court, the 80 Stat. 613. Solicitor of Labor may appear for and represent the Secretary in any civil litigation brought under this Act but all such litigation shall be subject to the direction and control of the Attorney General.

#### CONFIDENTIALITY OF TRADE SECRETS

Szc. 15. All information reported to or otherwise obtained by the Secretary or his representative in connection with any inspection or proceeding under this Act which contains or which might reveal a trade secret referred to in section 1905 of title 18 of the United States Code shall be considered confidential for the purpose of that section, 62 Stat. 791. except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act. In any such proceeding the Secretary, the Commission, or the court shall issue such orders as may be appropriate to protect the confidentiality of trade secrets.

#### VARIATIONS, TOLERANCES, AND EXEMPTIONS

SEC. 16. The Secretary, on the record, after notice and opportunity for a hearing may provide such reasonable limitations and may make such rules and regulations allowing reasonable variations, tolerances, and exemptions to and from any or all provisions of this Act as he may find necessary and proper to avoid serious impairment of the national defense. Such action shall not be in effect for more than six months without notification to affected employees and an opportunity being afforded for a hearing.

#### PENALTIES

SEC. 17. (a) Any employer who willfully or repeatedly violates the requirements of section 5 of this Act, any standard, rule, or order promulgated pursuant to section 6 of this Act, or regulations prescribed pursuant to this Act, may be assessed a civil penalty of not more than \$10,000 for each violation.

(b) Any employer who has received a citation for a serious violation of the requirements of section 5 of this Act, of any standard, rule, or order promulgated pursuant to section 6 of this Act, or of any regulations prescribed pursuant to this Act, shall be assessed a civil

penalty of up to \$1,000 for each such violation.

(c) Any employer who has received a citation for a violation of the requirements of section 5 of this Act, of any standard, rule, or order promulgated pursuant to section 6 of this Act, or of regulations prescribed pursuant to this Act, and such violation is specifically determined not to be of a serious nature, may be assessed a civil

penalty of up to \$1,000 for each such violation.

(d) Any employer who fails to correct a violation for which a citation has been issued under section 9(a) within the period permitted for its correction (which period shall not begin to run until the date of the final order of the Commission in the case of any review proceeding under section 10 initiated by the employer in good faith and not solely for delay or avoidance of penalties), may be assessed a civil penalty of not more than \$1,000 for each day during which such failure or violation continues.

(e) Any employer who willfully violates any standard, rule, or order promulgated pursuant to section 6 of this Act, or of any regulations prescribed pursuant to this Act, and that violation caused death to any employee, shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than six months, or by both; except that if the conviction is for a violation committed after a first conviction of such person, punishment shall be by a fine of not more than \$20,000 or by imprisonment for not more than one year, or by both.

(f) Any person who gives advance notice of any inspection to be conducted under this Act, without authority from the Secretary or his designees, shall, upon conviction, be punished by a fine of not more than \$1,000 or by imprisonment for not more than six months, or by

both.

(g) Whoever knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to this Act shall, upon conviction, be punished by a fine of not more than \$10,000, or by

imprisonment for not more than six months, or by both.

(h)(1) Section 1114 of title 18. United States Code, is hereby amended by striking out "designated by the Secretary of Health, Education, and Welfare to conduct investigations, or inspections under the Federal Food, Drug, and Cosmetic Act" and inserting in lieu thereof "or of the Department of Labor assigned to perform investigative, inspection, or law enforcement functions".

(2) Notwithstanding the provisions of sections 1111 and 1114 of title 18, United States Code, whoever, in violation of the provisions of section 1114 of such title, kills a person while engaged in or on account of the performance of investigative, inspection, or law enforcement functions added to such section 1114 by paragraph (1) of this subsection, and who would otherwise be subject to the penalty provisions of such section 1111, shall be punished by imprisonment for any term of years or for life.

(i) Any employer who violates any of the posting requirements, as prescribed under the provisions of this Act, shall be assessed a civil

penalty of up to \$1,000 for each violation.

(j) The Commission shall have authority to assess all civil penalties provided in this section, giving due consideration to the appropriateness of the penalty with respect to the size of the business of the employer being charged, the gravity of the violation, the good faith of the employer, and the history of previous violations.

(k) For purposes of this section, a serious violation shall be deemed to exist in a place of employment if there is a substantial probability that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation.

(1) Civil penalties owed under this Act shall be paid to the Secretary for deposit into the Treasury of the United States and shall accrue to the United States and may be recovered in a civil action in the name of the United States brought in the United States district court for the district where the violation is alleged to have occurred or where the employer has its principal office.

62 Stat. 756.

65 Stat. 721;

79 Stat. 234.

### STATE JURISDICTION AND STATE PLANS

Sec. 18. (a) Nothing in this Act shall prevent any State agency or court from asserting jurisdiction under State law over any occupational safety or health issue with respect to which no standard

is in effect under section 6.

(b) Any State which, at any time, desires to assume responsibility for development and enforcement therein of occupational sufety and health standards relating to any occupational safety or health issue with respect to which a Federal standard has been promulgated under section 6 shall submit a State plan for the development of such standards and their enforcement.

(c) The Secretary shall approve the plan submitted by a State under subsection (b), or any modification thereof, if such plan in his

judgment-

(1) designates a State agency or agencies as the agency or agencies responsible for administering the plan throughout the

State.

(2) provides for the development and enforcement of safety and health standards relating to one or more safety or health issues, which standards (and the enforcement of which standards) are or will be at least as effective in providing safe and healthful employment and places of employment as the standards promulgated under section 6 which relate to the same issues, and which standards, when applicable to products which are distributed or used in interstate commerce, are required by compelling local conditions and do not unduly burden interstate commerce.

(3) provides for a right of entry and inspection of all workplaces subject to the Act which is at least as effective as that provided in section 8, and includes a prohibition on advance notice

of inspections,

(4) contains satisfactory assurances that such agency or agencies have or will have the legal authority and qualified personnel necessary for the enforcement of such standards,

(5) gives satisfactory assurances that such State will devote adequate funds to the administration and enforcement of such

standards,

(6) contains satisfactory assurances that such State will, to the extent permitted by its law, establish and maintain an effective and comprehensive occupational safety and health program applicable to all employees of public agencies of the State and its political subdivisions, which program is as effective as the standards contained in an approved plan,

(7) requires employers in the State to make reports to the Secretary in the same manner and to the same extent as if the plan

were not in effect, and

(8) provides that the State agency will make such reports to the Secretary in such form and containing such information, as the Secretary shall from time to time require.

(d) If the Secretary rejects a plan submitted under subsection (b), he shall afford the State submitting the plan due notice and oppor-

tunity for a hearing before so doing.

(e) After the Secretary approves a State plan submitted under subsection (b), he may, but shall not be required to, exercise his authority under sections 8, 9, 10, 13, and 17 with respect to comparable standards promulgated under section 6, for the period specified in the next sentence. The Secretary may exercise the authority referred to above until he determines, on the basis of actual operations under the

Notice of

State plan, that the criteria set forth in subsection (c) are being applied, but he shall not make such determination for at least three years after the plan's approval under subsection (c). Upon making the determination referred to in the preceding sentence, the provisions of sections 5(a)(2), 8 (except for the purpose of carrying out subsection (f) of this section), 9, 10, 13, and 17, and standards promulgated under section 6 of this Act, shall not apply with respect to any occupational safety or health issues covered under the plan, but the Secretary may retain jurisdiction under the above provisions in any proceeding commenced under section 9 or 10 before the date of determination.

Continuing evaluation.

(f) The Secretary shall, on the basis of reports submitted by the State agency and his own inspections make a continuing evaluation of the manner in which each State having a plan approved under this section is carrying out such plan. Whenever the Secretary finds, after affording due notice and opportunity for a hearing, that in the administration of the State plan there is a failure to comply substantially with any provision of the State plan (or any assurance contained therein), he shall notify the State agency of his withdrawal of approval of such plan and upon receipt of such notice such plan shall cease to be in effect, but the State may retain jurisdiction in any case commenced before the withdrawal of the plan in order to enforce standards under the plan whenever the issues involved do not relate to the reasons for the withdrawal of the plan.

Plan rejection, review.

(g) The State may obtain a review of a decision of the Secretary withdrawing approval of or rejecting its plan by the United States court of appeals for the circuit in which the State is located by filing in such court within thirty days following receipt of notice of such decision a petition to modify or set aside in whole or in part the action of the Secretary. A copy of such petition shall forthwith be served upon the Secretary, and thereupon the Secretary shall certify and file in the court the record upon which the decision complained of was issued as provided in section 2112 of title 28, United States Code. Unless the court finds that the Secretary's decision in rejecting a proposed State plan or withdrawing his approval of such a plan is not supported by substantial evidence the court shall affirm the Secretary's decision. The judgment of the court shall be subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of title 28, United States Code.

72 Stat. 941; 80 Stat. 1323.

62 Stat. 928.

(h) The Secretary may enter into an agreement with a State under which the State will be permitted to continue to enforce one or more occupational health and safety standards in effect in such State until final action is taken by the Secretary with respect to a plan submitted by a State under subsection (b) of this section, or two years from the date of enactment of this Act, whichever is earlier.

# PEDERAL AGENCY SAFETY PROGRAMS AND RESPONSIBILITIES

Sec. 19. (a) It shall be the responsibility of the head of each Federal agency to establish and maintain an effective and comprehensive occupational safety and health program which is consistent with the standards promulgated under section 6. The head of each agency shall (after consultation with representatives of the employees thereof)—

(1) provide safe and healthful places and conditions of employment, consistent with the standards set under section 6;

(2) acquire, maintain, and require the use of safety equipment, personal protective equipment, and devices reasonably necessary to protect employees;

84 STAT, 1610 Recordkeeping.

(3) keep adequate records of all occupational accidents and illnesses for proper evaluation and necessary corrective action;

(4) consult with the Secretary with regard to the adequacy as to form and content of records kept pursuant to subsection (a) (3) of this section; and

(5) make an annual report to the Secretary with respect to occupational accidents and injuries and the agency's program under this section. Such report shall include any report submitted under section 7902(e) (2) of title 5, United States Code.

(b) The Secretary shall report to the President a summary or digest of reports submitted to him under subsection (a)(5) of this section, together with his evaluations of and recommendations derived from such reports. The President shall transmit annually to the Senate and the House of Representatives a report of the activities of Federal agencies under this section.

(c) Section 7902(c)(1) of title 5, United States Code, is amended by inserting after "agencies" the following: "and of labor organiza-

tions representing employees".

(d) The Secretary shall have access to records and reports kept and filed by Federal agencies pursuant to subsections (a) (3) and (5) of this section unless those records and reports are specifically required by Executive order to be kept secret in the interest of the national defense or foreign policy, in which case the Secretary shall have access to such information as will not jeopardize national defense or foreign policy.

Annual report.

80 Stat. 530. Report to President.

Report to Congress.

Records, etc.; availability.

### RESEARCH AND RELATED ACTIVITIES

SEC. 20. (a) (1) The Secretary of Health, Education, and Welfare, after consultation with the Secretary and with other appropriate Federal departments or agencies, shall conduct (directly or by grants or contracts) research, experiments, and demonstrations relating to occupational safety and health, including studies of psychological factors involved, and relating to innovative methods, techniques, and approaches for dealing with occupational safety and health problems.

(2) The Secretary of Health, Education, and Welfare shall from time to time consult with the Secretary in order to develop specific plans for such research, demonstrations, and experiments as are necessary to produce criteria, including criteria identifying toxic substances, enabling the Secretary to meet his responsibility for the formulation of safety and health standards under this Act; and the Secretary of Health, Education, and Welfare, on the basis of such research, demonstrations, and experiments and any other information available to him, shall develop and publish at least annually such criteria as will effectuate the purposes of this Act.

(3) The Secretary of Health, Education, and Welfare, on the basis of such research, demonstrations, and experiments, and any other information available to him, shall develop criteria dealing with toxic materials and harmful physical agents and substances which will describe exposure levels that are safe for various periods of employment, including but not limited to the exposure levels at which no employee will suffer impaired health or functional capacities or diminished life expectancy as a result of his work experience.

(4) The Secretary of Health, Education, and Welfare shall also conduct special research, experiments, and demonstrations relating to occupational safety and health as are necessary to explore new problems, including those created by new technology in occupational safety and health, which may require ameliorative action beyond that

which is otherwise provided for in the operating provisions of this Act. The Secretary of Health, Education, and Welfare shall also conduct research into the motivational and behavioral factors relating to the field of occupational safety and health.

Toxic substances, records.

Medical examinations.

(5) The Secretary of Health, Education, and Welfare, in order to comply with his responsibilities under paragraph (2), and in order to develop needed information regarding potentially toxic substances or harmful physical agents, may prescribe regulations requiring employers to measure, record, and make reports on the exposure of employees to substances or physical agents which the Secretary of Health, Education, and Welfare reasonably believes may endanger the health or safety of employees. The Secretary of Health, Education, and Welfare also is authorized to establish such programs of medical examinations and tests as may be necessary for determining the incidence of occupational illnesses and the susceptibility of employees to such illnesses. Nothing in this or any other provision of this Act shall be deemed to authorize or require medical examination, immunization, or treatment for those who object thereto on religious grounds, except where such is necessary for the protection of the health or safety of others. Upon the request of any employer who is required to measure and record exposure of employees to substances or physical agents as provided under this subsection, the Secretary of Health, Education, and Welfure shall furnish full financial or other assistance to such

employer for the purpose of defraying any additional expense incurred by him in carrying out the measuring and recording as provided in this subsection.

Toxic substances, publication.

(6) The Secretary of Health, Education, and Welfare shall publish within six months of enactment of this Act and thereafter as needed but at least annually a list of all known toxic substances by generic family or other useful grouping, and the concentrations at which such toxicity is known to occur. He shall determine following a written request by any employer or authorized representative of employees, specifying with reasonable particularity the grounds on which the request is made, whether any substance normally found in the place of employment has potentially toxic effects in such concentrations as used or found; and shall submit such determination both to employers and affected employees as soon as possible. If the Secretary of Health, Education, and Welfare determines that any substance is potentially toxic at the concentrations in which it is used or found in a place of employment, and such substance is not covered by an occupational safety or health standard promulgated under section 6, the Secretary of Health, Education, and Welfare shall immediately submit such determination to the Secretary, together with all pertinent criteria.

Arnual studies.

Inspections.

(7) Within two years of enactment of this Act, and annually thereafter the Secretary of Health, Education, and Welfare shall conduct and publish industrywide studies of the effect of chronic or low-level exposure to industrial materials, processes, and stresses on the potential for illness, disease, or loss of functional capacity in aging adults.

(b) The Secretary of Health, Education, and Welfare is authorized to make inspections and question employers and employees as provided in section 8 of this Act in order to carry out his functions and responsibilities under this section.

Contract authority.

(c) The Secretary is authorized to enter into contracts, agreements, or other arrangements with appropriate public agencies or private organizations for the purpose of conducting studies relating to his responsibilities under this Act. In carrying out his responsibilities

under this subsection, the Secretary shall cooperate with the Secretary of Health, Education, and Welfare in order to avoid any duplication of efforts under this section.

(d) Information obtained by the Secretary and the Secretary of Health, Education, and Welfare under this section shall be disseminated by the Secretary to employers and employees and organizations

(e) The functions of the Secretary of Health, Education, and Welfare under this Act shall, to the extent feasible, be delegated to the Director of the National Institute for Occupational Safety and Health established by section 22 of this Act.

Delegation of

### TRAINING AND EMPLOYEE EDUCATION

SEC. 21. (a) The Secretary of Health, Education, and Welfare, after consultation with the Secretary and with other appropriate Federal departments and agencies, shall conduct, directly or by grants or contracts (1) education programs to provide an adequate supply of qualified personnel to carry out the purposes of this Act, and (2) informational programs on the importance of and proper use of adequate safety and health equipment.

(b) The Secretary is also authorized to conduct, directly or by grants or contracts, short-term training of personnel engaged in work

related to his responsibilities under this Act.

(c) The Secretary, in consultation with the Secretary of Health, Education, and Welfare, shall (1) provide for the establishment and supervision of programs for the education and training of employers and employees in the recognition, avoidance, and prevention of unsafe or unhealthful working conditions in employments covered by this Act, and (2) consult with and advise employers and employees, and organizations representing employers and employees as to effective means of preventing occupational injuries and illnesses.

# NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

SEC. 22. (a) It is the purpose of this section to establish a National Establishment. Institute for Occupational Safety and Health in the Department of Health, Education, and Welfare in order to carry out the policy set forth in section 2 of this Act and to perform the functions of the Secretary of Health, Education, and Welfare under sections 20 and 21 of this Act.

(b) There is hereby established in the Department of Health, Education, and Welfare a National Institute for Occupational Safety and Health. The Institute shall be headed by a Director who shall be appointed by the Secretary of Health, Education, and Welfare, and who shall serve for a term of six years unless previously removed by

the Secretary of Health, Education, and Welfare.

(c) The Institute is authorized to-

(1) develop and establish recommended occupational safety and health standards; and

(2) perform all functions of the Secretary of Health, Education, and Welfure under sections 20 and 21 of this Act.

(d) Upon his own initiative, or upon the request of the Secretary or the Secretary of Health, Education, and Welfare, the Director is authorized (1) to conduct such research and experimental programs as he determines are necessary for the development of criteria for new and improved occupational safety and health standards, and (2) after

Director, appointment,

consideration of the results of such research and experimental programs make recommendations concerning new or improved occupational safety and health standards. Any occupational safety and health standard recommended pursuant to this section shall immediately be forwarded to the Secretary of Labor, and to the Secretary of Health, Education, and Welfare.

- 24 -

(e) In addition to any authority vested in the Institute by other provisions of this section, the Director, in carrying out the functions of

the Institute, is anthorized to-

(1) prescribe such regulations as he deems necessary governing

the manner in which its functions shall be carried out;

(2) receive money and other property donated, bequeathed, or devised, without condition or restriction other than that it be used for the purposes of the Institute and to use, sell, or otherwise dispose of such property for the purpose of carrying out its functions;

(3) receive (and use, sell, or otherwise dispose of, in accordance with paragraph (2)), money and other property donated, bequenthed, or devised to the Institute with a condition or restriction, including a condition that the Institute use other funds of the Institute for the purposes of the gift;

(4) in accordance with the civil service laws, appoint and fix the compensation of such personnel as may be necessary to carry

out the provisions of this section;

(5) obtain the services of experts and consultants in accordance with the provisions of section 3109 of title 5. United States Code:

(6) accept and utilize the services of voluntary and noncompensated personnel and reimburse them for travel expenses, including per diem, as authorized by section 5703 of title 5, United States Code;

(7) enter into contracts, grants or other arrangements, or modifications thereof to carry out the provisions of this section, and such contracts or modifications thereof may be entered into without performance or other bonds, and without regard to section 3709 of the Revised Statutes, as amended (41 U.S.C. 5), or any other provision of law relating to competitive bidding;

(8) make advance, progress, and other payments which the Director deems necessary under this title without regard to the provisions of section 3648 of the Revised Statutes, as amended

(31 U.S.C. 529); and

(9) make other necessary expenditures.

(f) The Director shall submit to the Secretary of Health, Education, and Welfare, to the President, and to the Congress an annual report of the operations of the Institute under this Act, which shall melude a detailed statement of all private and public funds received and expended by it, and such recommendations as he deems appropriate.

GRANTS TO THE STATES

Sec. 23. (a) The Secretary is authorized, during the fiscal year ending June 30, 1971, and the two succeeding fiscal years, to make grants to the States which have designated a State agency under section 18 to assist them-

(1) in identifying their needs and responsibilities in the area of

occupational safety and health,

(2) in developing State plans under section 18, or

80 Stat. 416.

83 Stat. 190.

Annual report

to HEW. President, and

Congress.

(3) in developing plans for-

(A) establishing systems for the collection of information concerning the nature and frequency of occupational injuries and diseases:

- 25 -

(B) increasing the expertise and enforcement capabilities of their personnel engaged in occupational safety and health

programs; or

(C) otherwise improving the administration and enforcement of State occupational safety and health laws, including standards thereunder, consistent with the objectives of this

(b) The Secretary is authorized, during the fiscal year ending June 30, 1971, and the two succeeding fiscal years, to make grants to the States for experimental and demonstration projects consistent with the objectives set forth in subsection (a) of this section.

(c) The Governor of the State shall designate the appropriate State agency for receipt of any grant made by the Secretary under this

(d) Any State agency designated by the Governor of the State desiring a grant under this section shall submit an application therefor to the Secretary.

(e) The Secretary shall review the application, and shall, after consultation with the Secretary of Health, Education, and Welfare,

approve or reject such application.

(f) The Federal share for each State grant under subsection (a) or (b) of this section may not exceed 90 per centum of the total cost of the application. In the event the Federal share for all States under either such subsection is not the same, the differences among the States shall be established on the basis of objective criteria.

(g) The Secretary is authorized to make grants to the States to assist them in administering and enforcing programs for occupational safety and health contained in State plans approved by the Secretary pursuant to section 18 of this Act. The Federal share for each State grant under this subsection may not exceed 50 per centum of the total cost to the State of such a program. The last sentence of subsection (f) shall be applicable in determining the Federal share under this

(h) Prior to June 30, 1973, the Secretary shall, after consultation with the Secretary of Health, Education, and Welfare, transmit a report to the President and to the Congress, describing the experience under the grant programs authorized by this section and making any recommendations he may deem appropriate.

President and Congress.

### STATISTICS

SEC. 24. (a) In order to further the purposes of this Act, the Secretary, in consultation with the Secretary of Health, Education, and Welfare, shall develop and maintain an effective program of collection, compilation, and analysis of occupational safety and health statistics. Such program may cover all employments whether or not subject to any other provisions of this Act but shall not cover employments excluded by section 4 of the Act. The Secretary shall compile accurate statistics on work injuries and illnesses which shall include all disabling, serious, or significant injuries and illnesses, whether or not involving loss of time from work, other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.

Reports.

- (b) To carry out his duties under subsection (a) of this section, the
  - (1) promote, encourage, or directly engage in programs of studies, information and communication concerning occupational sufety and health statistics;
  - (2) make grants to States or political subdivisions thereof in order to assist them in developing and administering programs dealing with occupational safety and health statistics; and
  - (3) arrange, through grants or contracts, for the conduct of such research and investigations as give promise of furthering the objectives of this section.

(c) The Federal share for each grant under subsection (b) of this

section may be up to 50 per centum of the State's total cost.

- (d) The Secretary may, with the consent of any State or political subdivision thereof, accept and use the services, facilities, and employees of the agencies of such State or political subdivision, with or without reimbursement, in order to assist him in carrying out his functions under this section.
- (e) On the basis of the records made and kept pursuant to section 8(c) of this Act, employers shall file such reports with the Secretary as he shall prescribe by regulation, as necessary to carry out his functions under this Act.
- (f) Agreements between the Department of Labor and States pertaining to the collection of occupational safety and health statistics already in effect on the effective date of this Act shall remain in effect until superseded by grants or contracts made under this Act.

### AUDITS

SEC. 25. (a) Each recipient of a grant under this Act shall keep such records as the Secretary or the Secretary of Health, Education, and Welfare shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such grant, the total cost of the project or undertaking in connection with which such grant is made or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(b) The Secretary or the Secretary of Health, Education, and Welfure, and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipients of any grant under this Act that are pertinent to any such

### ANNUAL REPORT

SEC. 26. Within one hundred and twenty days following the convening of each regular session of each Congress, the Secretary and the Secretary of Health, Education, and Welfare shall each prepare and submit to the President for transmittal to the Congress a report upon the subject matter of this Act, the progress toward achievement of the purpose of this Act, the needs and requirements in the field of occupational safety and health, and any other relevant information. Such reports shall include information regarding occupational safety and health standards, and criteria for such standards, developed during the preceding year; evaluation of standards and criteria previously developed under this Act, defining areas of emphasis for new criteria and standards; an evaluation of the degree of observance of applicable occupational safety and health standards, and a summary

of inspection and enforcement activity undertaken; analysis and evaluation of research activities for which results have been obtained under governmental and nongovernmental sponsorship; an analysis of major occupational diseases; evaluation of available control and measurement technology for hazards for which standards or criteria have been developed during the preceding year; description of cooperative efforts undertaken between Government agencies and other interested parties in the implementation of this Act during the preceding year; a progress report on the development of an adequate supply of trained manpower in the field of occupational safety and health, including estimates of future needs and the efforts being made by Government and others to meet those needs; listing of all toxic substances in industrial usage for which labeling requirements, criteria, or standards have not yet been established; and such recommendations for additional legislation as are deemed necessary to protect the safety and health of the worker and improve the administration of this Act.

# NATIONAL COMMISSION ON STATE WORKMEN'S COMPENSATION LAWS

Sec. 27. (a) (1) The Congress hereby finds and declares that-

(A) the vast majority of American workers, and their families, are dependent on workmen's compensation for their basic economic security in the event such workers suffer disabling injury or death in the course of their employment; and that the full protection of American workers from job-related injury or death requires an adequate, prompt, and equitable system of workmen's compensation as well as an effective program of occupational health and safety regulation; and

(B) in recent years serious questions have been raised concerning the fairness and adequacy of present workmen's compensation laws in the light of the growth of the economy, the changing nature of the labor force, increases in medical knowledge, changes in the hazards associated with various types of employment, new technology creating new risks to health and safety, and increases in the general level of wages and the cost of living.

(2) The purpose of this section is to authorize an effective study and objective evaluation of State workmen's compensation laws in order to determine if such laws provide an adequate, prompt, and equitable system of compensation for injury or death arising out of or in the course of employment.

(b) There is hereby established a National Commission on State

Workmen's Compensation Laws.

(c) (1) The Workmen's Compensation Commission shall be composed of fifteen members to be appointed by the President from among members of State workmen's compensation boards, representatives of insurance carriers, business, labor, members of the medical profession having experience in industrial medicine or in workmen's compensation cases, educators having special expertise in the field of workmen's compensation, and representatives of the general public. The Secretary, the Secretary of Commerce, and the Secretary of Health, Education, and Welfare shall be ex officio members of the Workmen's Compensation Commission:

(2) Any vacancy in the Workmen's Compensation Commission

shall not affect its powers. (3) The President shall designate one of the members to serve as Chairman and one to serve as Vice Chairman of the Workmen's Compensation Commission.

Establishment.

Quorum. Study. (4) Eight members of the Workmen's Compensation Commission

- 28 -

shall constitute a quorum.

(d) (1) The Workmen's Compensation Commission shall undertake a comprehensive study and evaluation of State workmen's compensation laws in order to determine if such laws provide an adequate, prompt, and equitable system of compensation. Such study and evaluation shall include, without being limited to, the following subjects:
(A) the amount and duration of permanent and temporary disability benefits and the criteria for determining the maximum limitations thereon, (B) the amount and duration of medical benefits and provisions insuring adequate medical care and free choice of physician, (C) the extent of coverage of workers, including exemptions based on numhers or type of employment, (D) standards for determining which injuries or diseases should be deemed compensable, (E) rehabilitation, (F) coverage under second or subsequent injury funds, (G) time limits on filing claims. (H) waiting periods, (I) compulsory or elective coverage, (J) administration, (K) legal expenses, (L) the feasibility and desirability of a uniform system of reporting information concerning job-related injuries and diseases and the operation of workmen's compensation laws, (M) the resolution of conflict of laws, extraterritoriality and similar problems arising from claims with multistate aspects, (N) the extent to which private insurance carriers are excluded from supplying workmen's compensation coverage and the desirability of such exclusionary practices, to the extent they are found to exist, (O) the relationship between workmen's compensation on the one hand, and old-age, disability, and survivors insurance and other types of insurance, public or private, on the other hand, (P) methods of implementing the recommendations of the Commission,

(2) The Workmen's Compensation Commission shall transmit to the President and to the Congress not later than July 31, 1972, a final report containing a detailed statement of the findings and conclusions of the Commission, together with such recommendations as it deems

advisable.

(e)(1) The Workmen's Compensation Commission or, on the authorization of the Workmen's Compensation Commission, any subcommittee or members thereof, may, for the purpose of carrying out the provisions of this title, hold such hearings, take such testimony, and sit and act at such times and places as the Workmen's Compensation Commission deems advisable. Any member authorized by the Workmen's Compensation Commission may administer oaths or affirmations to witnesses appearing before the Workmen's Compensation Commission or any subcommittee or members thereof.

(2) Each department, agency, and instrumentality of the executive branch of the Government, including independent agencies, is authorized and directed to furnish to the Workmen's Compensation Commission, upon request made by the Chairman or Vice Chairman, such information as the Workmen's Compensation Commission deems nec-

essary to carry out its functions under this section.

(f) Subject to such rules and regulations as may be adopted by the Workmen's Compensation Commission, the Chairman shall have the

power to-

(1) appoint and fix the compensation of an executive director, and such additional staff personnel as he deems necessary, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule

Report to President and Congress.

Hearings.

80 Stat. 378. 5 USC 101.

5 USC 5101, 5331.

84 STAT, 1618 Ante, p. 198-1.

80 Stat. 416.

Contract authorization.

travel ex-

pay rates, but at rates not in excess of the maximum rate for GS-18 of the General Schedule under section 5332 of such title, and

(2) procure temporary and intermittent services to the same extent as is authorized by section 3109 of title 5, United States

Code. (g) The Workmen's Compensation Commission is authorized to enter into contracts with Federal or State agencies, private firms, institutions, and individuals for the conduct of research or surveys, the preparation of reports, and other activities necessary to the discharge of its duties.

(h) Members of the Workmen's Compensation Commission shall Compensation; receive compensation for each day they are engaged in the performance of their duties as members of the Workmen's Compensation penses. Commission at the daily rate prescribed for GS-18 under section 5332 of title 5, United States Code, and shall be entitled to reimbursement for travel, subsistence, and other necessary expenses incurred by them in the performance of their duties as members of the Workmen's Compensation Commission.

(i) There are hereby authorized to be appropriated such sums as Appropriation.

may be necessary to carry out the provisions of this section. (i) On the ninetieth day after the date of submission of its final Termination. report to the President, the Workmen's Compensation Commission shall cease to exist.

### ECONOMIC ASSISTANCE TO SMALL BUSINESSES

SEC. 28. (a) Section 7(b) of the Small Business Act, as amended, is 72 Stat. 387; 83 Stat. 802.

(1) by striking out the period at the end of "paragraph (5)" and inserting in lieu thereof"; and"; and

(2) by adding after paragraph (5) a new paragraph as

"(6) to make such loans (either directly or in cooperation with banks or other lending institutions through agreements to participate on an immediate or deferred basis) as the Administration may determine to be necessary or appropriate to assist any small business concern in effecting additions to or alterations in the equipment, facilities, or methods of operation of such business in order to comply with the applicable standards promulgated pursuant to section 6 of the Occupational Safety and Health Act of 1970 or standards adopted by a State pursuant to a plan approved under section 18 of the Occupational Safety and Health Act of 1970, if the Administration determines that such concern is likely to suffer substantial economic injury without assistance under this paragraph."

(b) The third sentence of section 7(b) of he Small Business Act, as \*mended, is amended by striking out "or (5)" after "paragraph (3)" and inserting a comma followed by "(5) or (6)".

(c) Section 4(c)(1) of the Small Business Act, as amended, is 80 Stat. 132. amended by inserting "7(b)(6)," after "7(b)(5),". 15 USC 633.

(d) Loans may also be made or guaranteed for the purposes set forth in section 7(b) (6) of the Small Business Act, as amended, pursuant to the provisions of section 202 of the Public Works and Economic Development Act of 1965, as amended.

79 Stat. 556. 42 USC 3142.

# ADDITIONAL ASSISTANT SECRETARY OF LABOR

SEC. 29. (a) Section 2 of the Act of April 17, 1946 (60 Stat. 91) as amended (29 U.S.C. 553) is amended by-

75 Stat. 338.

### RULES -

# OF THE

# DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY CHAPTER 38C-16

38C-16.01	Purpose and Scope
38C-16.02	Definitions
38C-16.03	Eligibility and Procedure for Bureau Registration
38C-16.04	Standards of Apprenticeship
38C-16.05	Apprenticeship Agreement
38C-16.06	Deregistration of Bureau Registered Program
38C-16.07	Hearings
38C-16.08	Complaints
38C-16.09	Reinstatement of Program Registration
38C-16.10	Pre-Apprenticeship Programs

# 38C-16.01 Purpose and Scope

- (1) Section 446.031 (2), Florida Statutes, authorizes and directs the Division of Labor to formulate and promote the furtherance of labor standards necessary to safeguard the welfare and wages of apprentices and to extend the application of such standards by requiring the inclusion thereof in contracts of apprenticeship.
- (2) The purpose of this chapter is to set forth labor standards to safeguard the welfare and wages of apprentices and to extend the application of such standards by prescribing policies and procedures concerning the registration of acceptable

apprenticeship programs with the State of Florida, Department of Labor and Employment Security, Division of Labor, Bureau of Apprenticeship. These labor standards and procedures cover the registration, cancellation and deregistration of apprenticeship programs and of apprenticeship agreements; and matters relating thereto.

General Authority 446.031(2) FS. Law Implemented 446.031(2) FS. 38C-16.02 Definitions.

As used in this part:

- (1) "Registrant or Sponsor" means any person, association, committee, or organization in whose name or title the program is or is to be registered, irrespective of whether such entity is an employer.
- (2) "employer" means a signatory party to a collective bargaining agreement or signatory to a participating employer agreement with the program sponsor which will be registered with the Bureau of Apprenticeship.
- (3) "Apprenticeship Agreement" means a written agreement between an apprentice and either his employer or an agreement between an apprentice and either his employer or an apprenticeship committee acting a sagent for employer(s) which agreement contains the terms and conditions of the employment and training of the apprentice.
- (4) "Joint-Apprenticeship Committee" means a committee, composed of an equal number of representatives of employers and employees, which has been established by an employer or group of

employers and a bona fide collective bargaining agent or agents to conduct, operate, or administer an apprenticeship program and enter into apprenticeship agreement with apprentices selected for employment under the particular program.

- apprenticeship sponsor who does not participate in a bona fide collective bargaining agreement; it includes an individual nonjoint sponsor (apprenticeship program sponsored by one employer without the participation of a union) and a group nonjoint sponsor (apprenticeship program sponsored by one employer without the participation of a union).
- (6) "Registration of an Apprenticeship Program" means the acceptance and recording of such program by the Bureaus meeting the basic standards and requirements of the Division for approval of such program. Approval is evidenced by a certificate or other written indicia.
- (7) Registration of an Apprenticeship Agreement" means the acceptance and recording thereof by Bureau as evidence of the participation of the apprentice in a particular registered apprenticeship program.
- (8) "Established journeyman hourly rate" means the average of the hourly rates paid to all journeymen, as defined by Section 446.021(4), Florida Statutes, by all participating employers in an apprenticeship program.
- (9) "Journeyman" means a person working in an apprenticeable occupation who has successfully completed a

registered apprenticeship program or who has worked the number of years required by established industry practices" means the number of years of training required by the majority of registered program standards for the particular trade or occupation.

General Authority 446.031(2) FS. Law Implemented 446.021, FS.

38C-16.03 Eligibility and Procedure for Bureau Registration.

- (1) No apprenticeship program or agreement shall be eligible for Bureau registration unless it is in conformity with the applicable provisions of Chapter 446, Florida Statutes and the training is in an apprenticable occupation.
- (a) Prior to the registration of any apprenticeship sponsor, all of the standards established by the Division of Labor shall be met.
- (b) The Bureau shall cooperate with and give all possible assistance to employers, associations, committees and other organizations that request registration of an apprenticeship program.
- (c) There shall be a presumption that there is a need for apprenticeship training in each county in Florida unless proven to the contrary.
- (2) Reasonable assurance of employment opportunities for training purposes necessary for completion of the contemplated program by individual apprentices shall be demonstrated prior to registration of a program by the Bureau. The number and size

(number of employees) of employers committed to support the program will be considered in making this determination.

- (3) Apprentices must be individually registered under a registered program. Such registration shall be effected by filing copies of each apprenticeship agreement with the Bureau.
- (4) The Bureau must be promptly notified through the appropriate field office of the cancellation, suspension, or termination of any apprenticeship agreements, with cause for same, and of apprenticeship completions.
- (5) Approved apprenticeship programs shall be accorded registration, evidenced by a certificate of registration.
- (6) Any modification(s) or change(s) to registered standards shall be promptly submitted to the Bureau through the appropriate field office, and if approved, shall be recorded and acknowledged as an amendment to such standards.
- (7) The certificate of registration for an approved program will be made in the name of the program sponsor and must be renewed every three (3) years.
- (8) The request for registration, together with all documents and data required by this chapter, shall be submitted in five copies.
- (9) Under a program proposed for registration by an employer or employers' association, where the standards, collective bargaining agreement, or other instrument, provides for participation by a union in any manner in the operation of the substantive matters of the apprenticeship program, and such

participation is exercised, written acknowledgement of union agreement or "no objection" to the registration is required. Where no such participation is evidenced and practiced, the employer or emoloyers' association shall simultaneously furnish to the union local, if any, which is the recognized or certified collective bargaining agent of the employees to be trained, a of the and for registration application copy of its upon receipt of the In addition, apprenticeship program. application and apprenticeship program, the Bureau shall promptly send by certified mail to such union local another copy of the application and of the apprenticeship program together with a notice that union comments will be accepted for 30 days after the date of the agency transmittal.

- (10) Where the employees to be trained have no collective bargaining agent, an apprenticeship program may be proposed for registration by an employer or group of employers.
- (11) An apprenticeship program may be registered in one or more occupations simultaneously or individually with the provision that the program sponsor shall, within sixty (60) days of registration, be actively training apprentices on the job in each occupation for which registration is granted.
- (12) Each occupation for which a program sponsor holds registration shall be subject to cancellation if no active training of apprentices on the job has occurred within one consecutive ninety (90) day period.

procedure, apprenticeship programs and standards of sponsoring entities in other than the building and construction industry formed on a multi-state basis and registered pursuant to all requirements of Title 29CFR, Section 29, by any federally recognized state apprenticeship agency/council or by the Bureau of Apprenticeship and Training of the U.S. Department of Labor shall be afforded approval reciprocity by the Florida Bureau of Apprenticeship if such reciprocity is requested by the sponsoring entity and if a determination of need has been made as provided by Section 446.071, Florida Statutes, as amended.

General Authority 446.031(2), FS. Law Implemented 446.031; 446.041; 446.052; 446.071; 446.075, FS.

38C-16.04 Standards of Apprenticeship.

The following standards are prescribed for an apprenticeship program:

- (1) the program must be an organized, written plan embodying the terms and conditions of employment, training, and supervision of one or more apprentices in an apprenticeable occupation, as defined in this chapter, and subscribed to by a sponsor who has undertaken to carry out the apprentice training program.
- (2) The standards must contain provisions concerning the following:
- (a) The employment and training of the apprentice in a skilled trade;

- (b) A term of apprenticeship, not less than 2,000 hours of work and training, which hours are excluded from the time spent at related instruction, and which shall be consistent with training requirements as established by industry practice;
- (c) An outline of the work processes in which the apprentice will receive supervised work experience and training on the job, and the allocation of the approximate time to be spent in each major process;
- (d) Provision for organized related and supplemental instruction in technical subjects related to the trade. A minimum of 144 hours for each year of apprenticeship is required. Such instruction may be given in a classroom, through trade, industrial, or approved correspondence courses of equivalent value approved by the Bureau;
  - (e) Wage Provisions -
- 1. A progressively increasing schedule of wage rates to be paid the apprentice, consistent with the skill acquired, which shall be expressed in percentages of the established journeyman hourly rate. The rates represent the minimum for each incremental period of apprenticeship. The established journeyman hourly rate applicable among all participating employers shall be stated in dollars and cents.

- 2. The entry apprentice wage rate shall be no less than 35 percent of the established journeyman hourly rate paid by all participating employers in the program. Provided, however, that in no event shall the apprentice wage rate be less than the minimum wage prescribed by the Fair Labor Standards Act.
- 3. No apprentice shall receive an hourly wage less than the percentage for the incremental period in which he is serving applied to the established journeyman rate.
- 4. The established journeyman hourly rate provided for by the standards shall be reviewed and adjusted annually.
- 5. The minimum hourly apprentice wage rate paid during the last incremental period of apprenticeship shall be not less than 75 percent of the established journeyman wage rate.
- 6. This subsection governing apprentice wages shall not be interpreted or construed in a manner that would cause a conflict with applicable federal law or regulations. The minimum entry apprentice wage rate and the minimum apprentice wage rate during the last incremental period of apprenticeship shall be reviewed periodically by the Division of Labor and amended when determined necessary.

Specific Authority 446.031 F.S. Law Implemented 446.041, 446.075 F.S. History-New 6/9/81: Amended \_\_\_\_\_\_\_.

(f) Periodic review and evaluation of the apprentice's progress in job performance and related instruction, and the maintenance of appropriate progress records;

- (g) The ratio of apprentices to journeymen consistent with proper supervision training, and continuity of employment or applicable provisions in collective bargaining agreements, but in a ratio of not more than one apprentice to the employer in each apprenticeable occupation, and one apprentice for each three journeymen thereafter. It shall be the responsibility of the committee to ensure that the allowable ratio of apprentices to journeymen is consistently maintained in the program as a whole, by each participating employer, and on the job site;
- (h) A probationary period reasonable in relation to the full apprenticeship term, with full credit for such period toward completion of apprenticeship;
- (i) Adequate and safe equipment facilities for training and supervision, and safety training for apprentices on the job and in related instruction;
- (j) The required minimum qualifications for persons entering an apprenticeship program;
- (k) The placement of an apprentice under an apprenticeship agreement. The agreement shall directly, or by reference, incorporate the standards of the program as part of the agreement;
- (1) Grant of advance standing or credit for previously acquired experience, training, skills, or aptitude for all applicants equally, with commensurate wages for any accorded progression step;

- (m) Transfer of employer's training obligation through the committee, if one exists and as warranted, to another employer, with fill credit to the apprentice for satisfactory time and training earned;
  - (n) Assurance of qualified training personnel;
- (o) Recognition for successful completion of apprenticeship evidenced by an appropriate certificate;
  - (p) Identification of the registration agency;
- (q) Provision for the registration, cancellation and deregistration of the program; and requirement for the prompt submission of any modification or amendment thereto;
- (r) Provision for registration of apprenticeship agreements, modifications, and amendments; notice to the Bureau of persons who have successfully completed apprenticeship programs; and notice of cancellations, suspensions and terminations of apprenticeship agreements and causes therefor;
- (s) Authority for the termination of an apprenticeship agreement during the probationary period by either party without stated cause;
- (t) Provision for not less than five days' notice to apprentice of any proposed adverse action and cause therefor with stated opportunity to apprentice during such period for corrective action, unless other acceptable procedures are provided for in the collective bargaining agreement;

- (u) Provision for a grievance procedure, and the name and address of the appropriate authority under the program to receive, process and make disposition of, complaints;
- (v) Recording and maintenance of all records concerning apprenticeship as may be required by state or federal law;
  - (w) Provision for a participating employer's agreement -
- 1. Each participating employer shall sign a participating employer's agreement with the program sponsor accepting the funding formula and all other requirements of the program standards, unless otherwise provided for in a collective bargaining agreement.
- 2. The program sponsor shall notify the Bureau on a current basis who its participating employers are and shall notify the Bureau of any change in the status of each participating employer. Where the program sponsor uses a participating employers' agreement, a copy of same and the cancellation thereof, being furnished to the Bureau will satisfy the requirements of this subsection;
- (x) A funding formula providing for the equitable participation of each participating employer in funding of the program;
- (y) All apprenticeship standards must contain articles necessary to comply with Federal laws, regulations, and rules pertaining to apprenticeship;

apprentice in the jurisdiction of another committee until he so notifies the Bureau and all local joint apprenticeship committees if covered by a collective bargaining agreement or the Bureau and all local nonjoint committees if not covered by a collective bargaining agreement. The purpose of this notice is to provide the opportunity for a mutually agreeable, voluntary assignment of apprentices from a local committee if apprentices are available. This provision shall not be construed as relieving a contractor of his diligent effort requirements as provided in Section 446.101, F.S., and Chapter 38C-19, Florida Administrative Code. General Authority 446.031(2) FS. Laws Implemented 446.041; 446.075; 446.092, FS.

38C-16.05 Apprenticeship Agreement

The apprenticeship agreement shall contain:

- (1) Names and signature of the contracting parties (apprentice, and the program registrant or employer), and the signature of a parent or guardian if the apprentice is a minor;
  - (2) The date of birth of apprentice;
- (3) Name and address of the program registrant and registration agency;
- (4) A statement of the trade or craft which the apprentice is to be taught, and the beginning date and term (duration) of apprenticeship;

- (5) A statement showing:
- (a) The number of hours to be spent by the apprentice in work on the job;
- (b) The number of hours to be spent in related and supplemental instruction which is required to be not less than 144 hours per year;
  - (6) Statements providing:
- (a) For a specific period of probation during which the apprenticeship agreement may be terminated by either party to the agreement upon written notice to the registration agency;
- (b) That, after the probationary period, the agreement may be suspended, cancelled, or terminated for good cause, with due notice to the apprentice and a reasonable opportunity for corrective action, and with written notice to the apprentice and said agency of the final action taken;
- (7) A reference incorporating, as part of the agreement, the standards of the apprenticeship program as it exists on the date of the agreement and as it may be amended during the period of the agreement;
- (8) A statement that the apprentice will be accorded equal opportunity in all phases of apprenticeship employment and training without discrimination because of race, color, religion, national origin or sex;
- (9) A statement that if an employer is unable to fulfill his obligation under his apprenticeship agreement, the agreement may, with consent of the apprentice and committee if one exists,

be transferred to another employer under a registered program with written notice of the transfer to the registration agency and with full credit to the apprentice for satisfactory time and training earned;

- (10) Name and address of the appropriate authority, if any, designated under the program to receive, process and make disposition of controversies or differences arising out of the apprenticeship agreement when the controversies or differences cannot be adjusted locally or resolved in accordance with the established trade procedure or applicable collective bargaining provisions;
- (11) A statement that in the event the registration of the program has been cancelled or revoked, the apprentice will be notified within 15 days of the event.

General Authority 446.031(2) FS. Law Implemented 446.041; 446.071; 446.092 FS.

38C-16.06 Deregistration of Bureau Registered Program.

Deregistration of a program may be effected either upon the voluntary action of the registrant by a request for cancellation of the registration or upon notice by the Bureau to the registrant stating cause, and instituting formal deregistration proceedings in accordance with the provisions of this chapter.

- (1) Request by registrant. The Chief may cancel the registration of an apprenticeship program by a written acknowledgement if such request stating, but not limited to, the following:
- (a) The registration is cancelled at registrant's request, and giving the effective date of such cancellation;
- (b) That, within 15 workdays of the date of the acknowledgement, the registrant must notify all apprentices of such cancellation and the effective date; that such cancellation automatically deprives the apprentice of his individual registration.
  - (2) Deregistration by Bureau.
- (a) Deregistration proceedings may be undertaken when the apprenticeship program is not conducted, operated, or administered in accordance with the registered standards or the requirements of this chapter.
- (b) Where it appears the program is not being operated in accordance with the registered standards or with the requirements of this chapter, the apprenticeship representative shall notify the Chief, and the Chief shall so notify the program registrant in writing.
- (c) The notice shall be sent by registered or certified mail, return receipt requested, shall state the deficiency(s) and remedy(s) required and shall state that the program will be deregistered for cause unless corrective action is taken within 30 days.

- (d) During the period for correction, the registrant shall be assisted in every reasonable way by the Bureau.
- (e) If the required action is not taken within the allotted time, the CHief shall send a notice to the registrant by registered or certified mail, return receipt requested, stating the following:
  - 1. This notice is sent pursuant to this subsection;
- 2. That certain deficiencies were called to registrant's attention and remedial actions requested;
- 3. Based upon the stated cause, the program will be deregistered, unless within 15 workdays of receipt of this notice the registrant requests a hearing;
- 4. If a hearing is not requested by the registrant, the program will be automatically deregistered.
- shall notify the Division. The Division Director shall conduct the hearing or request hat the Division of Administrative Hearings conduct the hearing as provided in Chapter 120, Florida Statutes. In either case, the Administration Commission model rules of procedure shall be used.
- (g) Based upon the evidence presented at the hearing, the hearing officer may recommend and the Division Director, within his decretion may allow the registrant a reasonable time to achieve voluntary corrective action.
- (h) Every order of deregistration shall contain a provision that the registrant shall, within 15 workdays of the

effective date of the order, notify all registered apprentices of the deregistration of the program, the effective date, and that such action automatically deprives the apprentice of his individual registration.

General Authority 446.031(2) FS. Law Implemented 443.041(2) FS.

38C-16.07 Hearings.

- (1) Upon denial by the Bureau of request for approval of an apprentice program, the applicant shall have the opportunity for a public hearing on the said denial. Notice of denial by the Bureau shall be by registered or certified mail, return receipt requested. A request for hearing shall be made (postmarked) within fifteen (15) work days of receipt of the notice of denial. Hearings shall either be conducted by the Division Director or, upon request of the Division Director, by a hearing officer assigned from the Department of Administration, Division of Administrative Hearings, as provided in Chapter 120, Florida Statutes. In either case, the Administration Commission model rules of procedure shall govern.
- (2) Deregistration hearings shall either be conducted by the Division Director, or, upon request of the Division Director, by a hearing officer assigned from the Department of Administration, Division of Administrative Hearings, as provided in Chapter 120, Florida Statutes. In either case, the Administration Commission model rules of procedure shall govern. General Authority 446.031(2) FS. Law Implemented 446.041(2); 446.071; 446.081(3) FS.

38C-16.08 Complaints.

- apprenticeship agreement or under the registered apprenticeship or preapprenticeship standards, which cannot be resolved locally, or which is not covered by a collective bargaining agreement, may be submitted by an apprentice or other affected person, or by the authorized representative of either, to the Bureau for review. Matters covered by a collective bargaining agreement, however, shall be submitted and processed in accordance with the procedures therein provided.
- (2) The complaint shall be in writing, signed by the complainant and be submitted within 60 days of receipt of the local decision or within 60 days of the date it becomes apparent that a decision at the local level cannot be reached. The complaint shall set forth the specific problem, including a statement of all relevant facts and circumstances. Copies of all pertinent documents and correspondence shall accompany the complaint.
- (3) The Chief or his designee shall review the complaint and all available pertinent information and shall conduct such investigation as may be necessary to make a decision on the complaint. A request by an affected party for a hearing on the complaint shall be granted or denied within 15 days of receipt by the Bureau in Tallahassee. Hearings shall be conducted in accordance with the Administration Commission model rules of procedure.

General Authority 446.031(2), FS. Law Implemented 446.041(2), 120.57, FS.

38C-16.09 Reinstatement of Program Registration.

Any apprenticeship program deregistered pursuant to this chapter may be reinstated upon presentation of adequate evidence that the apprenticeship program is operating in accordance with this chapter. Such evidence shall be presented to the Chief if the registrant had not requested a hearing or to the Director if an order of deregistration was entered pursuant to a hearing.

General Authority 446.031(2) FS. Law Implemented 446.041(2) FS.

38C-16.10 Preapprenticeship Programs.

- (1) The sponsor of an apprenticeship program shall give primary consideration for admission to persons who complete the sponsor's preapprenticeship program.
- (2) The preapprenticeship graduates who enter an apprenticeship program may be exempted from repeating any related course of instruction equal to the time period of their preappprenticeship if the graduate passes a competency examination.

General Authority 446.031(2) FS. Law Implemented 446.052 FS.

### CHAPTER 446

### JOB TRAINING

446 011	Declaration of legislative intent with respect to apprenticeship training.
446 021	Definitions of terms used in ss 446.011-446.092
446 032	General duties of division with respect to apprenticeship training.
446 041	Apprenticeship program, duties of division.
446 045	State Apprenticeship Council
446 051	Related instruction for apprentices.
446.052	Preapprenticeship program
446.051	Expenditures.
446.071	Apprenticeship sponsors.
446 075	Federal and state cooperation.
446 081	Limitation.
446 091	On-the-job training program.
446 092	Criteria for apprenticeship occupations.
446.20	Administration of responsibilities under the
	federal Job Training Partnership Act.
446'-0	Rural Manpower Services Act, short title
446 41	Legislative intent with respect to rural man- power training and development, estab- lishment of Rural Manpower Services Pro-
	gram .
446 42	General purpose of Rural Manpower Services , Program
446 43	Scope and coverage of Rural Manpower Ser-

446.011 Declaration of legislative intent with re-

**Duties of Rural Manpower Services Program** 

vices Program.

446 44

spect to apprenticeship training.-(1) It is the intent of the State of Florida to provide educational opportunities for its young people so that they can be trained for trades, occupations, and professions suited to their abilities. It is the intent of this act to promote the mode of training known as apprenticeship in occupations throughout industry in the state that require physical manipulative skills. By broadening job training opportunities and providing for increased coordination between public school academic programs, vocational programs, and registered apprenticeship programs, the young people of the state will benefit from the valuable training opportunities developed when onthe job training is combined with academic-related classroom experiences. This act is intended to develop the apparent potentials in apprenticeship training by assisting in the establishment of preapprenticeship programs in the public school system and elsewhere and by expanding presently registered programs as well as promoting new registered programs in jobs that lend themselves to apprenticeship training.

(2) It is the intent of the Legislature that the Division of Labor, Employment, and Training of the Department of Labor and Employment Security have responsibility for the development of the apprenticeship and preapprenticeship uniform minimum standards for the apprenticeable trades and that the Division of Vocational, Adult and Community Education of the Department of Education have rescunded-stated as a security of Education by the Community Education of the Department of Education have rescunded-stated as a security of the Community Education of the Co

school boards and community college district boards of trustees in developing preapprenticeship programs in compliance with the standards established by the Division of Labor, Employment, and Training.

(3) It is the further intent of this act that the Division of Labor, Employment, and Training ensure quality training through the adoption and enforcement of uniform minimum standards and that the Bureau of Apprenticeship of the Division of Labor promote, register, monitor, and service apprenticeship and training programs and ensure that such-programs adhere to the standards.

(4) It is the intent of the Legislature that this act not require the use of apprentices on construction projects financed by the state or any county, municipality, town or township, public authority, special district, municipal service taxing unit, or other agency of state or local government. Notwithstanding this intent, whenever any government or agency of government employs, of its own choice, apprentices or employs contractors who employ apprentices, the behavior of the government and the contractors employed by the government shall be governed by the provisions of this act.

History. — \$ 1 ch 20134 1947 \$ 11 ch 20035 1949 \$ 1, ch 20037 1953 \$ 1, ch 63 193 19 17 35 ch 59 195 \$ 1 ch 72 113 \$ 53 ch 73 338 \$ 29 ch 79 7 \$ 1 ch 73 197 \$ 794 ch 81 259 \$ 1, ch 82 52, \$ 18, ch 83 174 \$ 4 ch 85 75 Note: — 10 mmer \$ 445 06

446.021 Definitions of terms used in ss. 446.011-446.092.—As used in ss. 446.011-446.092, the following words and terms shall have the following meanings unless the context clearly indicates otherwise:

(1) "Preapprentice" means any person 16 years of age or over engaged in any course of instruction in the public school system or elsewhere, which course is registered as a preapprenticeship program with the Division of Labor, Employment, and Training of the Department of Labor and Employment Security

(2) "Apprentice" means a person at least 16 years of age who is engaged in learning a recognized skilled trade through actual work experience under the supervision of journeymen craftsmen, which training should be combined with properly coordinated studies of related technical and supplementary subjects, and who has entered into a written agreement, hereinafter called an apprentice agreement, with a registered apprenticeship sponsor who may be either an employer, an association of employers, or a local joint apprenticeship committee

(3) "Trainee" means a person at least 16 years of age who is engaged in learning a specific skill, trade, or occupation within a formalized, on-the-job training program.

(4) "Journeyman" means a person working in an apprenticeable occupation who has successfully completed a registered apprenticeship program or who has worked the number of years required by established industry practices for the particular trade or occupation.

(5) "Preapprenticeship program" means an organized course of instruction in the public school system or element, which course is designed to prepare as efficient's year. If a gentricities to the to he tome an appreciate

and which course is approved by and registered with the Bureau of Apprenticeship of the Division of Labor, Employment, and Training and sponsored by a registered apprenticeship program.

- (6) "Apprenticeship program" means an organized course of instruction, registered and approved by the division, which course shall contain all terms and conditions for the qualifications, recruitment, selection, employment, and training of apprentices including such matters as the requirements for a written apprenticeship agreement.
- (7) "On-the-job training program" means a formalized system of job processes which may be augmented by related instruction that provides the experience and knowledge necessary to meet the training objective of learning a specific skill, trade, or occupation. Such training program shall be at least 6 months and not more than 2 years in duration and shall be registered with the division.
- (8) "Uniform minimum preapprenticeship standards" means the minimum requirements established uniformly for each craft under which a preapprenticeship program is administered and includes standards of admission, training goals, training objectives, curriculum outlines, objective standards to measure successful completion of the preapprenticeship program, and the percentage of credit that may be given to preapprenticeship graduates upon acceptance into the apprenticeship program.
- (9) "Related instruction" means an organized and systematic form of instruction designed to provide the apprentice with knowledge of the theoretical subjects related to a specific trade or occupation.
- (10) "Cancellation" means the deregistration of an apprenticeship program or the termination of an apprenticeship agreement.
- (11) "Jurisdiction" means the specific geographical area for which a particular program is registered.
- (12) "Division" means the Division of Labor, Employment, and Training of the Department of Labor and Employment Security.
- (13) "Director" means the director of the Division of Labor, Employment, and Training.
- History.—s 2 ch 23334 1347 s 1 ch 63 153 s 2 ch 72 113 s 54 ch 73 338 s 30 ch 79 7, s 2 ch 79 337, s 19 ch 83 174

  Note.—Former s 446 07

446.032 General duties of division with respect to apprenticeship training.—The Division of Labor, Employment, and Training shall:

(1) Establish uniform minimum standards and policies governing apprentice programs and agreements. Such standards and policies shall govern the terms and conditions of the apprentice's employment and training, including the quality training of the apprentice with respect to, but not limited to, such matters as ratios of apprentices to journeymen, safety, related instruction, and on-the-job training, but such standards and policies shall not include rules, standards, or guidelines that require the use of apprentices and job trainees on state, county, or municipal contracts. The division may adopt rules as necessary to carry out such standards and policies.

- (2) Establish by rule procedures to be utilized by the State Apprenticeship Council in accordance with the provisions of s. 446,045.
- (3) Establish a Bureau of Apprenticeship pursuant to the instructions of the Secretary of Labor and Employment Security

History,-s 2, ch 82 52, s 1, ch 82 55, s 20, ch 83 174

- 446.041 Apprenticeship program, duties of division.—The Division of Labor, Employment, and Training shall:
  - (1) Administer the provisions of ss. 446 011-446 092.
- (2) Administer the standards established by the division.
- (3) Register in accordance with this chapter any apprenticeship or preapprenticeship program, regardless of affiliation, which meets standards established by the division.
- (4) Investigate complaints concerning the failure of any registered program to meet the standards established by the division.
- (5) Cancel the registration of any program which fails to comply with the standards and policies of the division or which unreasonably fails or refuses to cooperate with the division in monitoring and enforcing compliance with such standards.
- (6) Develop and encourage apprenticeship programs.
- (7) Cooperate with and assist local apprenticeship sponsors in the development of their apprenticeship standards and training requirements.
- (8) Cooperate with and assist the Division of Vocational, Adult, and Community Education of the Department of Education and appropriate vocational education institutions in the development of viable apprenticeship and preapprenticeship programs
- (9) Encourage registered apprenticeship programs to grant consideration and credit to individuals completing registered preapprenticeship programs.
- (10) Monitor registered apprenticeship programs to ensure that they are being operated in compliance with all applicable standards.
- (11) Supervise all apprenticeship programs which are registered with the division
- (12) Adopt rules as required to implement the provisions of this act
- Mistory. s 4 ch 23934 1947 s 3, ch 29037 1953 s 1, ch 63 153, s 19 ch 63 400, ss 17, 35 ch 69 100 s 163 ch 71 377 s 3 ch 72-113 s 1 ch 73 283, s 56 ch 73 338 s 1, ch 77 174 s 11, ch 78 95 s 32 ch 79-7, s 4 ch 79 397, s 21, ch 83 174 s 5 ch 85 75

## 446.045 State Apprenticeship Council.—

- (1) For the purposes of this section:
- (a) "Joint employee organization" means an apprenticeship sponsor who participates in a collective bargaining agreement and represents employees.
- (b) "Nonjoint employer organization" means an apprenticeship sponsor who does not participate in a collective bargaining agreement and who represents management
- (2)(a) There is created a State Apprenticeship Council to be composed of 12 members, which shall be advisory to the Division of Labor, Employment, and Training of the Department of Labor, and Employment Security

The purpose of the council shall be to advise the division on matters relating to apprenticeship. In no event shall the council establish policy, promulgate rules, or consider whether particular apprenticeship programs should be approved by the division or bureau. Meetings of the council shall be subject to the provisions of chapter 286. and only those matters contained in the notice of meeting provided by the division pursuant thereto shall be considered by the council.

(b) The division director or his designee shall be ex officio chairman of the State Apprenticeship Council, except that he shall have voting power in cases of tie votes. The administrator of industrial education of the Department of Education shall be appointed a nonvoting member of the council. The Governor shall appoint two three-member committees for the purpose of nominating candidates for appointment to the council. One nominating committee shall be composed of joint employee organization representatives, and the other nominating committee shall be composed of nonjoint employer organization representatives. The joint employee organization nominating committee shall submit to the Governor the names of three persons for each vacancy occurring among the joint employee organization members on the council, and the nonjoint employer organization nominating committee likewise shall submit to the Governor the names of three persons for each vacancy occurring among the nonjoint employer organization members on the council. The Governor shall appoint to the council five members representing joint employee organizations and five members representing nonjoint employer organizations from the candidates nominated for each position by the respective nominating committees. Each member shall represent industries which have registered apprenticeship programs or in which a need for apprenticeship programs has been demonstrated, the terms of the members shall run concurrently with the Governor's term of office.

(c) The council shall meet in a government office building twice a year. In addition, the council shall meet at the call of the chairman for special meetings when justified by the circumstances. However, the council members representing the joint employee organizations and the council members representing the nonjoint employer organizations shall meet separately twice a year

- (d) Each council member is accountable to the Governor for the proper performance of the duties of the member's office. The Governor shall cause to be investigated any complaint or unfavorable report received concerning the actions of the council or any member and shall take appropriate action thereon. The Governor may remove any member from office for malfeasance, misfeasance, neglect of duty, incompetence, permanent inability to perform official duties, pleading guilty or nolo contendere to a felony, or being found guilty of a felony.
- (e) Each member of the council shall serve at his own expense, but shall be entitled to per diem and travel expenses
- (3) The State Apprenticeship Council is repealed on October 1, 1988, and shall be reviewed by the Legislature pursuant to the Sundown Act

History Fiss 1, 2 on #255 s 22 on #3174 s 99 on 55 s1 of #s 11 bit Subbuwh Act

a 446 032 Division of Labor, Employment, and Training to establish council pro

### 446.051 Related instruction for apprentices.—

(1) The administration and supervision of related and supplemental instruction for apprentices, coordination of such instruction with job experiences, and selection and training of teachers and coordinators for such instruction, all as approved by the registered program sponsor, shall be the responsibility of the appropriate vocational education institution.

(2) The appropriate vocational education institution shall be encouraged to cooperate with and assist in providing to any registered program sponsor facilities, equipment and supplies, and instructors' salaries for the performance of related and supplemental instruction associated with the registered program.

History. -s 5, ch 20034, 1947, s 4, ch 28037, 1953, s 1, ch 63-153, ss 15, 17, 35, ch 63-166, s 5, ch 70-397

Note.-Former s 446 10

### 446.052 Preapprenticeship program.—

(1) There is created and established a preapprenticeship education program, as defined in s. 446,021.

(2) The Division of Vocational, Adult, and Community Education of the Department of Education, under regulations established by the State Board of Education, is authorized to administer the provisions of ss. 446 011-446,092 that relate to preapprenticeship programs in cooperation with district school boards and community college district boards of trustees. District school boards, community college district boards of trustees. and registered program sponsors shall cooperate in developing and establishing programs that include vocational instruction and general education courses reguired to obtain a high school diploma.

(3) The Division of Vocational, Adult, and Community Education, the district school boards, the community college district boards of trustees, and the Division of Labor, Employment, and Training shall work together with existing registered apprenticeship programs so that individuals completing such preapprenticeship programs may be able to receive credit towards completing a registered apprenticeship program

(4) Veterans who have received discharges other than dishonorable discharges shall, if qualified, receive the same priorities given to registered preapprentices History. - s 4 ch 72 113 s 57, ch 73 338, s 6, ch 79 397, s 285, ch 81-259, s 23, ch 83-174, s 19, ch 84 114, s 6, ch 85-75

446.061 Expenditures. - The Division of Labor, Employment, and Training shall make necessary expenditures from the appropriation provided by law for personal services, travel, printing, equipment, office space, and supplies as provided by law History.—s 6 cn 23934, 1947 s 24 ch 57-1 s 1, ch 63-153, ss 17, 35, ch 69-106 s 1, cn 72-183 s 1, cn 77-174, s 24, ch 83-174

Note.—Former s 440-11

# 446.071 Apprenticeship sponsors. --

(1) One or more local apprenticeship sponsors shall be approved in any trade or group of trades by the Division of Labor, Employment, and Training, upon a determination of need, provided the apprenticeship sponsor meets all of the standards established by the division \*Need" refers to the need of state residents for apprenticeship training. In the absence of proof to the contrary, it shall be presumed that there is need for apprenticeship and preapprenticeship training in each county in this state.

(2) A local apprenticeship sponsor may be a committee, a group of employers, an employer, or a group

of employees, or any combination thereof.

(3) The division has authority to grant a variance from the standards upon a showing of good cause for such variance by program sponsors in nonconstruction trades. The purpose of this provision is to recognize the unique and varying training requirements in nontraditional apprenticeable occupations and to authorize the division and bureau to adapt the standards to the needs of such programs.

History. -- s 7, cn 2334-1947, s 1 ch 63 153, ss 17, 35, ch 69 105, s 5, ch 72 113, s 58, ch 73 338 s 1 ch 77 183, s 7, ch 79 397, s 25, ch 83 174

Note. - Former s 446 12

446.075 Federal and state cooperation.—The Division of Labor, Employment, and Training of the Department of Labor and Employment Security is authorized to make and enter into contracts with the United States Department of Labor, and to assume such other functions and duties as are necessary for the division to serve as registration agent for federal apprenticeship registration purposes, except that the division shall not enforce any federal apprenticeship requirement unless the division first adopts such requirement as a rule. All rules promulgated and administrative hearings afforded by the division because of this section shall be in accordance with the requirements of chapter 120. Mistory.-s 1, ch. 77-182, s. 33, ch. 79-7; s. 8, ch. 79-397, s. 26, ch. 83-174

### 446.081 Limitation.—

(1) Nothing in ss. 446 011-446 092 or in any apprentice agreement approved under those sections shall operate to invalidate any apprenticeship provision in any collective agreement between employers and employees setting up higher apprenticeship standards

(2) No person shall institute any action for the enforcement of any apprentice agreement, or for damages for the breach of any apprentice agreement, made under ss. 446 011-446 092, unless he has first exhausted all administrative remedies provided by this section

(3) Any person aggrieved by any determination or act of the division shall have the right to an administralive hearing.

History,—s 8 ch 23934 1947 s 5 ch 29037, 1953 s 1, ch 63 153 s 1 ch 69 267, s 1, ch 73 283, s 120, ch 73 333, s 1, ch 77.174 s 11 ch 78 95, s 27, ch 83 174

446.091 On-the-job training program.—All provisions of ss. 446 011-446 092 relating to apprenticeship and preapprenticeship, including, but not limited to, programs, agreements, standards, administration, procedures, definitions, expenditures, local committees, powers and duties, limitations, grievances, ratios of apprenlices and job trainees to journeymen on state, county, and municipal contracts, and functions of the Division of Labor, Employment, and Training shall be appropriately adapted and made applicable to a program of on-the-job training hereby authorized for persons other than apprentices

History. - s 2 ch 63 (53 ss 17 35 ch 69 (06 s 1, ch 73 283 s 59 ch 73 338, s 1, ch 77 174 s 28 ch 83 174 s 76 ch 83 218

446,092 Criteria for apprenticeship occupations.— An apprenticeable occupation is a skilled trade which possesses all of the following characteristics:

(1) It is customarily learned in a practical way through a structured, systematic program of on-the-job,

supervised training.

(2) It is commonly recognized throughout the industry or recognized with a positive view towards changing technology.

(3) It involves manual, mechanical, or technical skills and knowledge which require a minimum of 2,000 hours of work and training, which hours are excluded from the time spent at related instruction.

(4) It requires related instruction to supplement onthe job training. Such instruction may be given in a classroom or through correspondence courses

- (5) It involves the development of skill sufficiently broad to be applicable in like occupations throughout an industry, rather than of restricted application to the products or services of any one company.
- (6) It does not fall into any of the following categories:
- (a) Selling, retailing, or similar occupations in the distributive field.

(b) Managerial occupations.

(c) Professional and scientific vocations for which entrance requirements customarily require an academic degree.

History.-s 9, ch. 79 337, s. 77, ch. 83 218

### 446.20 Administration of responsibilities under the federal Job Training Partnership Act. -

 The Department of Labor and Employment Security is responsible for carrying out the duties and responsibilities assigned by the Governor under the Job Training Partnership Act, Pub. L. No. 97-300.

- (2) The State Job Training Coordinating Council, which is hereby created, as provided by Pub. L. No. 97-300, shall have the responsibilities as assigned by the Governor pursuant to the Job Training Partnership Act. Such responsibilities shall include reviewing the duties and responsibilities of the Department of Labor and Employment Security pursuant to this section. The State Job Training Coordinating Council is repealed October 1, 1990, and shall be reviewed by the Legislature pursuant to the Sundown Act.
- (3) The director of the Division of Labor, Employment, and Training may, upon delegation from the Secretary of Labor and Employment Security, sign contracts, grants, and other instruments on behalf of the Governor as necessary to execute the functions assigned to the Governor under the Job Training Partnership Act.

(4) The director of the Division of Labor, Employment, and Training shall be the authority, upon delegation from the Secretary of Labor and Employment Security, to make rules for the administration of this act

(5) The Division of Labor, Employment, and Training may assume such duties as are delegated to it by the United States Government and its agencies for the purpose of obtaining federal funding to carry out the purposes of the Job Training Partnership Act in this state.

(6) The assignment of powers and duties to the Division of Labor, Employment, and Training shall not be construed to limit the authority and responsibility of the Secretary of Labor and Employment Security as provided in s. 20.05(1)(a).

Mistory. -ss 44 46, ch 83 174, s 70, ch 85-81 cf -s 11 611 Sundown Act

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446.40 Rural Manpower Services Act; short title.— Sections 446.40-446.44 shall be cited as the "Rural Manpower Services Act."

History.—s 1, ch 72 338 Note.—Former s 450 40

446.41 Legislative intent with respect to rural manpower training and development; establishment of Rural Manpower Services Program.—In order that the state may achieve its full economic and social potential, consideration must be given to rural manpower training and development to enable its rural citizens as well as urban citizens to develop their maximum capacities and participate productively in our society. It is, therefore, the policy of the state to make available those services needed to assist individuals and communities in rural areas to improve their quality of life. It is with a great sense of urgency that a Rural Manpower Services Program is established within the Division of Labor, Employment, and Training of the Department of Labor and Employment Security to provide equal access to all manpower training programs available to rural as well as urban ar-

History, -- s 2, cn. 72 339 s 1, cn. 72 283 s 1, cn. 77-174, s 45, ch. 79-7, s 42, ch. 83 174

Nate, -- Former s 450 41

446.42 General purpose of Rural Manpower Services Program.—A trained labor force is an essential ingredient for industrial as well as agricultural growth. Therefore, it shall be the general responsibility of the Rural Manpower Services Program to provide rural business and potential rural businesses with the employment and manpower training services and resources necessary to train and retain Florida's rural work force.

History. —s 3, ch. 72 39t Note, —Framer s. 450 42

446.43 Scope and coverage of Rural Manpower Services Program.—The scope of the area to be covered by the Rural Manpower Services Program will include all counties of the state not classified as standard metropolitan statistical areas (SMSA) by the United States Department of Labor Manpower Administration Florida's designated SMSA labor areas include: Broward, Dade, Duval, Escambia, Hillsborough, Pinellas, Leon, Orange, and Palm Beach Counties.

History. - s 4 ch 72 335 Note, -- Former s 450 43

446.44 Duties of Rural Manpower Services Program.—It shall be the direct responsibility of the Rural Manpower Services Program to promote and deliver all employment and manpower services and resources to the rural undeveloped and underdeveloped counties of the state in an effort to

- (1) Slow down out-migration of untrained rural residents to the state's overcrowded large metropolitan centers
- (2) Assist the department's Economic Development Division in attracting light, pollution-free industry to the rural counties.
- (3) Improve the economic status of the impoverished rural residents
- (4) Provide present and new industry with the manpower training resources necessary for them to train the untrained rural work force toward gainful employment.
- (5) Develop rural manpower programs which will be evaluated, planned, and implemented through communications and planning with appropriate:
  - (a) Departments of state and federal governments
- (b) Divisions, bureaus, or sections of the Department of Commerce.
- (c) Agencies and organizations of the public and private sectors at the state, regional, and local levels.

  History.--s 5 on 72.3-d s 1, on 73.743 s 1 on 77.174.

  Note.--Furner s 4/0.44

# DEFINITION OF A CARPENTER

860\_381-022 CARPENTER (const.) · Constructs, erects, installs, and repairs structures and fixtures of wood, plywood, and wallboard, using carpenter's handtools and power tools, and conforming to local building codes: Studies blueprints, sketches, or building plans for information pertaining to type of material required, such as lumber or fiberboard, and dimensions of structure or fixture to be fabricated. Selects specified type of lumber or other materials. Prepares layout, using rule, framing square, and calipers. Marks cutting and assembly lines on materials, using pencil, chalk, and marking gage. Shapes materials to prescribed measurements, using saws, chisels, and planes. Assembles cut and shaped materials and fastens them together with nails, dowel pins, or glue. Verifies trueness of structure with plumb bob and carpenter's level. Erects framework for structure with plumb bob and carpenter's level. tures and lays subflooring. Builds stairs and lays out and installs partitions and cabinet work. Covers subfloor with building paper to keep out moisture and lays hardwood, parquet, and wood-strip-block floors by nailing floors to subfloor or cementing them to mastic or asphalt base. Applies shock-absorbing, sound-deadening, and decorative paneling to ceilings and walls. Fits and installs prefabricated window frames, doors, doorframes, weather stripping, interior and exterior trim, and finish hardware, such as locks, letterdrops, and kick plates. Constructs forms and chutes for pouring concrete. Erects scaffolding and ladders for assembling structures above ground level. May weld metal parts to steel structural members. When specializing in particular phase of carpentry is designated according to specialty as COMBINATION-WINDOW IN-STALLER (const.): LAY-OUT CARPENTER (const.). When specializing in finish carpentry, such as installing interior and exterior trim, building stairs, and laying hardwood floors is designated FINISH CAR-PENTER (const.). When erecting frame buildings and performing general carpentry work in residential construction is designated HOUSE CARPENTER (const.). May remove and replace sections of structures prior to and after installation of insulating materials and be designated BUILDING-INSULATING CARPENTER (const.; ret. tr.). May perform carpentry work in construction of walk-in freezers and environmental test chambers and be designated CARPENTER, REFRIGERA-TOR (refrigerat equip.). Additional titles: DOOR HANGER (const.); FINISHED-HARDWARE ERECTOR (const.); GARAGE-DOOR HANGER (const.); HARDWOOD-FLOOR INSTALLER (const.); JA-LOUSIE INSTALLER (const.); STAIR BUILDER (const.); TRIM SETTER (const.); WEATHER STRIPPER (const.); WOOD-SASH-AND-FRAME CARPENTER (const.); WOOD-STRIP-BLOCK FLOOR INSTALLER (const.).

Source: U.S. Department of Labor, Employment and Training Administration, Dictionary of Occupational Titles, 4th Edition, 1977.

# **BIBLIOGRAPHY**

- Belcher, George U.S. Department of Labor, Bureau of Apprenticeship and Training, Tallahasee. Personal Interview. 26 May 1987.
- "Building Trends for the Rest of the Eighties." Florida Construction Industry Magazine. Nov./Dec. 1986, p. 18-22.
- Cohen, Arthur Training Director, Associated General Contractors, West Palm Beach. Personal Interview. 15 April 1987.
- Construction Labor Research Council. "Meeting The Future Need for Construction Labor, 1990-1995." October, 1985.
- Crouch, Gregory. "Orlando Slows Down to Catch Its Breath."

  Florida Trend. vol. 29, no. 13, Yearbook 1987, p.97-103.
- Crouch, Gregory. "The Most Overbuilt Florida Has Ever Been". Florida Trend. vol. 29, no. 13., Yearbook 1987, p. 163-165.
- Florida Rules of the Department of Labor and Employment Security
  Chapter 38C-16. Tallahassee, Florida.
- Floyd, Susan S. and Anne H. Shoemyen, eds.. <u>1986 Florida</u>

  <u>Statistical Abstract.</u> Gainesville, Florida: The University
  Presses of Florida, 1986.
- Foster, Dwight L. Executive Director, Associations of Builders and Contractors Institute, Inc.. Personal Interview. 15 April 1987.
- Foster, Dwight Associations of Builders and Contractors Institute, Inc.. Letter dated May 12, 1986.
- Herndon, Al Florida Bureau of Apprenticeship, Jacksonville.

  Personal Interview. 16 December 1986.
- Job Training, Florida Statute Chapter 446. 1985 Edition, Tallahasee, Florida.
- "Job Outlook Cluster." Occupational Outlook Quarterly. Spring 1986, p. 26-34.
- "Labor Shortage Grips Several Cities." Engineering News Record.
  25 September 1986, p. 10-11.

pose of obtaining federal funding to carry out the purposes of the Job Training Partnership Act in this state.

(6) The assignment of powers and duties to the Division of Labor. Employment, and Training shall not be construed to limit the authority and responsibility of the Secretary of Labor and Employment Security as provided in s. 20.05(1)(a).

History, -ss 44 46, ch 83 174, s 70, ch 85-81 cf -s 11 611 Sundown Act

446.40 Rural Manpower Services Act; short title.— Sections 446.40-446.44 shall be cited as the "Bural Manpower Services Act."

Mistary.—s 1, ch. 72 398 Nate.—Farmer s 450 40

446.41 Legislative intent with respect to rural manpower training and development; establishment of Rural Manpower Services Program.—In order that the state may achieve its full economic and social potential. consideration must be given to rural manpower training and development to enable its rural citizens as well as urban citizens to develop their maximum capacities and participate productively in our society. It is, therefore, the policy of the state to make available those services needed to assist individuals and communities in rural areas to improve their quality of life. It is with a great sense. of urgancy that a Rural Manpower Services Program is established within the Division of Labor, Employment, and Training of the Department of Labor and Employment Security to provide equal access to all manpower training programs available to rural as well as urban ar-

History,--s 2, ch. 72:398 s 1, ch. 73:283 s 1, ch. 77:174, s 45, ch. 79-7, s 42, ch. 83:174

Note, -- Former s 450 41

446.42 General purpose of Rural Manpower Services Program.—A trained labor force is an essential ingredient for industrial as well as agricultural growth Therefore, it shall be the general responsibility of the Rural Manpower Services Program to provide rural business and potential rural businesses with the employment and manpower training services and resources necessary to train and retain Florida's rural work force.

History. - s 3 ch 72 394 Note. - Framer s 450 42

446.43 Scope and coverage of Rural Manpower Services Program.—The scope of the area to be covered by the Rural Manpower Services Program will include all counties of the state not classified as standard metropolitan statistical areas (SMSA) by the United States Department of Labor Manpower Administration Florida's designated SMSA labor areas include Broward, Dade, Duval, Escambia, Hillsborough, Pinellas, Leon, Orange, and Palm Beach Counties.

History.—s. 4. cn. 72 358 Note.—Former s. 450 43

- 446.44 Duties of Rural Manpower Services Program.—It shall be the direct responsibility of the Rural Manpower Services Program to promote and deliver all employment and manpower services and resources to the rural undeveloped and underdeveloped counties of the state in an effort to
- Slow down out migration of untrained rural residents to the state's overcrowded large metropolitan centers
- (2) Assist the department's Economic Development Division in attracting light, pollution-free industry to the rural counties.
- (3) Improve the economic status of the impoverished rural residents
- (4) Provide present and new industry with the manpower training resources necessary for them to train the untrained rural work force toward gainful employment
- (5) Develop rural manpower programs which will be evaluated, planned, and implemented through communications and planning with appropriate.
  - (a) Departments of state and federal governments
- (b) Divisions, bureaus, or sections of the Department of Commerce.
- (c) Agencies and organizations of the public and private sectors at the state, regional, and local levels. History, --s 5 on 72.3 of s 1, on 73.2kl s 1 on 77.174. Note.—Furner's 450.44

- U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training, National Apprenticeship and Training Standards for Carpentry. 1973.
- Weicherding, John Associated General Contractors. Letter dated April 6, 1987.
- Welch, Bonnie. "A New Attitude Embraces Growth". Florida Trend. vol. 29, no. 13, Yearbook 1987, p. 73-79.
- Wilson, Elizabeth. "Lakeland Makes the Most of Location." Florida Trend. vol. 29, no. 13, Yearbook 1987, p. 89-95.
- Wilson, Elizabeth. "Much More Than A Pass-Through Place." Florida Trend. vol. 29, no. 13, Yearbook 1987, p.105-111.
- Wittwer, Charlotte. "Trying to Diversify a Two Track Economy." Florida Trend. vol. 29, no. 13, Yearbook 1987, p.129-135.
- Wittwer, Charlotte. "A Push For Industryu Begins to Pay Off." Florida Trend. vol. 29, no. 13, Yearbook 1987, p.137-143.
- "Yesterday, Today and Tomorrow". 29th Annual Florida
  Apprenticehsip Conference. Atlantic Beach, Florida. Attended
  conference 11 June 1987.

- Lauver, William Florida Bureau of Apprenticeship, Jacksonville. Personal Interview. 14 May 1987.
- Lukasiewicz, John and John Tschetter. "Employment Trends in the Building Trades." Occupational Outlook Quarterly. Spring, 1983, p.4.
- McCauley, Richard Y. Chief, Florida Bureau of Apprenticeship, Tallahassee. Personal Interview. 26 May 1987.
- Nipper, Charles Business representative, United Brotherhood of Carpenters and Joiners of America. Telephone conversation. 25 August 1987.
- Riviere, Nancy. Associated Builders and Contractors, Washington D.C.. Telephone conversation. 3 August 1987.
- Selz, Michael. "Jacksonville Shows Signs of Oversupply." Florida Trend. vol 29, no. 13, Yearbook 1987, p. 113-119.
- "Some Trades Cooling To Givebacks." Engineering News Record. 18
  September 1986, p. 51-61.
- "State Overview." Florida Trend. vol. 29, no. 13, Yearbook 1987, p. 46-55.
- Taylor, John. "Development Finds Its Way Up The Coast." Florida Trend. vol. 29, no. 13, Yearbook 1987, p. 65-71.
- Taylor, John. "Tampa Bay Takes Big-League Strides." Florida Trend. vol. 29, no. 13, Yearbook 1987, p. 81-87.
- U.S. Congress. Occupational Safety and Health Act of 1970, Public Law 91-596, 84 Stat. 1590. 91st Congress, 29 December 1970. Washington, D.C.
- U.S. Department of Labor, Employment and Training Administration.

  <u>Apprenticeship: Past and Present.</u> 1982.
- U.S. Department of Labor, Employment and Training Administration.

  <u>Dictionary of Occupational Titles.</u> 4th Edition, 1977.
- U.S. Department of Labor, Office of the Secretary. Apprenticeship Programs, Labor Standards for Registration (Title 29 CFR Part 29). Federal Register, vol. 42, no. 34, 18 February 1987.
- U.S. Department of Labor, Office of the Secretary. Equal Employment Opportunity in Apprenticeship and Training (Title 29 CFR Part 30). Federal Register, vol. 43, no. 93, 12 May 1978.