

LABOR-MANAGEMENT TRAINING PROGRAMS ESTABLISHED AND
FUNDED THROUGH COLLECTIVE BARGAINING AGREEMENTS AT FIRMS
EMPLOYING 1000 OR MORE PERSONS

By

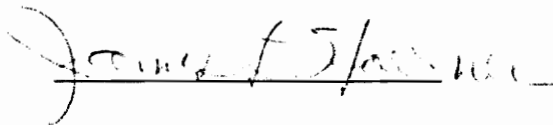
Stephen Michael Hensley

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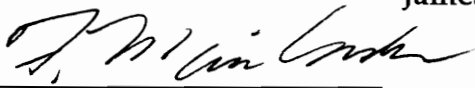
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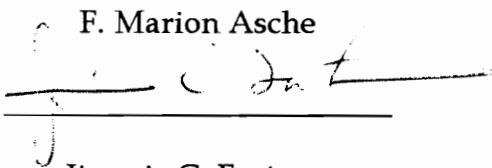
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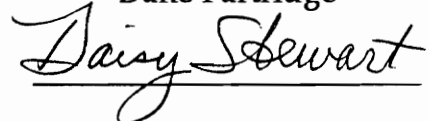
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(ABSTRACT)

Throughout the United States, workers are participating in training programs jointly established by their union and their company. These joint training programs have emerged as a significant innovation in employee training programs during the past fifteen years and are helping workers learn new technical skills, develop better basic skills, and enrich their personal lives. These programs share unique characteristics including their contract language, funding arrangements, programmatic content, educational approach, and shared governance.

Unfortunately, comprehensive information regarding these programs' origins, distribution, governance, organization, structure, operation, and management has been reported only using anecdotal approaches. This research void has constrained policy, pedagogical, and technical application of these programs' principles.

This study used content analysis methodology to systematically collect and analyze information regarding 798 existing joint training programs that

were established and conducted through the collective bargaining process. In addition, the study synthesized the existing literature regarding joint training programs including information from three previous studies.

Specific research questions were used to analyze four types of existing joint labor-management training programs: skills training, apprenticeships, tuition assistance, and educational leave programs. Information regarding these programs' governance, organization, structure, operation, and management was also collected, analyzed, and reported. Selected findings and conclusions from the study include:

1. Current joint training programs for active workers are oriented toward providing technical skills needed in today's workplace rather than building the individual worker's basic skills. Over 90% of the agreements included in this study supported training workers in currently required job skills, general job skills, and new technology implementation.
2. Though popular literature indicates that reading, writing, and mathematics skills are becoming more important skills for today's workers, companies appear inclined to believe that these skills only obliquely impact their profitability or, more likely, see these activities as the individual workers' responsibilities. Among the agreements included in this study, support for career counseling, personal

development courses, or high school diploma completion programs was limited to relatively few companies, unions, and standard industrial classifications.

3. Apprenticeship programs are the most common joint training program model and are found in all industrial classifications. This training process is not, as previously reported, overwhelmingly dominated by the construction industry. Apprenticeship provisions at companies in construction oriented standard industrial classifications represented just 39% of the total agreements with apprenticeship provisions. This percentage is only slightly higher than these agreements' representation within the study population as agreements with construction oriented companies represented 34% of the agreements included in the study.

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Chapter 1

Introduction of the Study

Introduction

Behind the buzzwords trumpeted by today's corporate leaders -- "economic competitiveness," "training and retraining," "employee empowerment," and "high performance work organizations" -- lie a clear message. Competitive workers must be able to adapt to changing situations, make good decisions quickly, and use their creative skills to resolve workplace dilemmas (Carnevale, 1991) or their jobs will become endangered. Skill requirements are changing rapidly with a higher premium placed on cognitive and reasoning skills (Brock, 1991).

Organized labor unions have played a vital role in resolving our nation's workforce deficiencies by developing training programs that provide their members with the high skill levels and versatility needed in today's workplace. Collective bargaining agreements provide an appropriate vehicle through which workers and employers can establish and fund the complex educational programs needed by today's organized labor union members. According to AFL-CIO President Lane Kirkland, "Unions will be going to the bargaining table to negotiate learning programs and learning time, along with work time" (Sarmiento, 1989, p.3). Joint union-management

training programs that benefit both workers and employers and provide training, raise productivity, improve work morale, and strengthen worker security are an excellent vehicle for accomplishing this critical goal. These programs have become more commonplace in collective bargaining agreements.

Numerous social and economic conditions catalyzed development of joint union-management training programs. These conditions included: intensified global and local competition; industrial restructuring including deregulation; geographic shifts in primary industry locations; relative decline in goods producing industries; growth in service sector industries; technology changes including their impact on work processes; and workforce composition and quality (Petersen, 1987; Ferman, Hoyman, Cutcher-Gersensfeld, & Savoie, 1991; Katz & Keefe, 1993).

These factors, individually and collectively, have affected unions and union members. Many labor organizations have suffered severe financial losses, dwindling membership, unavoidable concessionary bargaining, and reduced wages. In some instances, unions and employers responded by becoming more contentious. In other cases, companies and unions began working together in nontraditional ways with the focus on increasing

product quality and production inefficiency through increased worker participation.

As unions attempted to arrest this decline, their most significant efforts focused on joint training programs that were established through the collective bargaining process and cooperatively funded, administered, and operated. These programs have improved job security, expanded opportunities for workers, and stabilized union-management relations.

Industrial relations scholars believe these joint training programs indicate the beginning of an era (Kochan, Katz, & McKersie, 1987) in which union-employer relations, including individual job structures, will be fundamentally transformed. Initially, these joint training programs were designed to help laid off workers cope with dislocation and permanent layoffs. Active workers were provided training that would help them face the workplace changes caused by technological innovations, global competition, and new business practices. Management acknowledged that these programs would help workers adjust to shortened product cycles, altered production processes, increased quality standards, and heightened productivity pressures. Labor has agreed that these programs are “win-win” arrangements that increase the company’s profitability while increasing the job security of union workers. Thomas R. Donahue (1982) stressed the need

for labor-management cooperation when he explained the contemporary union perspective:

I do believe that the adversarial role, appropriate to the conflict of collective bargaining, ought to be limited to the period of negotiation... and during the lifetime of the contract so arrived at, it ought to be replaced by a period of cooperation, aimed at maximizing the potential success of the joint enterprise, i.e. the company's business or production. (p. 1).

Unions and union members who initiate these joint training programs also reap specific longer term advantages from their participation. The unions have realized that their members' job responsibilities will change many times during their career even if their job title remains the same. Production workers will have two or three careers during their lifetime with each career requiring new skills and additional training. These programs provide an excellent means through which individual union members can prepare themselves for this new work environment.

Statement of Problem

Significant forces, including deindustrialization, deregulation, globalization, and technological change, are placing substantial pressures on

employers and unions to invest in production workers' training needs. Joint union-management training programs have emerged as one to the most significant innovations in worker training programs during the past fifteen years.

Research has shown that joint labor-management training programs have distinctive characteristics: negotiated contract language through which they are established; substantial funds available for their operation; joint decisionmaking as an inherent operating principle; and a wider range of services than nearly any other training program.

Unfortunately, unanswered questions regarding potential problem areas in these programs have made some companies hesitant to adopt joint labor-management programs. What is the true significance of existing joint training programs? Which models are most effective or most commonly used in specific industrial sectors? Are these programs structurally changing the industrial relations and industrial training processes? How are these programs distinct from other public or private training programs?

Purposes of the Study

Comprehensive information regarding joint labor-management training programs has not been systematically collected and analyzed. No

information regarding these programs' origins, prevalence, or distribution has been available. Information regarding these programs' governance, organization, structure, operation, and management has been reported only using anecdotal approaches. This information void has constrained systematic program evaluation. It has also limited policy, pedagogical, or technical application of the potentially valuable lessons learned during these programs.

This study systematically collects and analyzes information regarding existing joint labor-management training programs that were established and conducted through a collective bargaining agreement. The study determines the geographic, union, and industrial classification distribution of four program types: apprenticeships, training programs, educational leave programs, and tuition assistance programs. Information regarding these programs' governance, organization, structure, operation, and management has also been collected, analyzed, and reported.

Research Questions

This study achieved its purpose by conducting research and analysis that focused on three research questions:

1. What joint union-management training programs are most commonly included in collective bargaining agreements?
2. What are the characteristics of common joint union-management training programs?
3. What are the geographic, union, and industrial classification distribution of the joint union-management training programs?

Significance of the Study

Joint training programs are among the most significant innovations developed during the past fifteen years in worker training and retraining (United States Department of Labor, Federal Mediation and Conciliation Service, January, 1995). Unfortunately, only anecdotal information about these programs is available with quantified data either unavailable or unacceptably inaccurate. This information void makes it very difficult to effectively use the policy, pedagogical, or technical knowledge gained from these programs.

This study provides quantified data regarding these programs and illustrated the potential benefits of these joint union management training programs. This information is needed by persons or institutions developing

relationships with these programs including educators, business owners, labor officials, and government officials.

Limitations

This research has three limitations that could potentially impact its usefulness. First, joint union-management efforts evolve at different times, places, and paces. This process usually begins with apprenticeship programs, progresses through joint committees charged with addressing specific issues like health or safety, and evolves into full-fledged joint union-management training programs as the relationship matures. These programs often originate as employee involvement initiatives and may be less significant within a specific company than a program that has developed over an extended period. This difference in how programs may originate made it imperative that “joint training programs” be defined as apprenticeships, skills training programs, educational assistance programs, or tuition assistance programs. More subtle information that could have been gathered from programs that are in earlier development stages and did not meet this joint training program definition may have been excluded.

Second, most joint training programs had operated for less than ten years and could not provide quantitative data regarding the impact on either

their employees or employer. Typically, the parties involved in operating and managing the training program viewed delivering programs, not data collection, as their primary role. Their funding sources were more flexible about evaluation than the traditional government agencies that have operated similar training programs in the past. These parties were not eager to have outside researchers study their programs since the political costs of any public criticisms could be quite high.

Third, it should be noted that the Labor Management Relations Act of 1947, Section 211, required that companies who have entered into a collective bargaining agreement provide the Bureau of Labor Statistics with a copy of the collective bargaining agreement if the bargaining unit represents 1,000 or more workers. This clause was often ignored. Agency staff reported inordinate delays by companies responding to their requests and suggested that this may result in some incomplete master files. This condition may have caused some eligible agreements to be excluded from the sample.

Definitions

The following terms or phrases were frequently used in this study and must be understood to effectively analyze this study's research results. These

definitions reflect the context in which the term or phrase was used in this study.

1. Apprenticeship programs are on-the-job training processes that provide technical skill training for younger workers and are a passage into certain skilled jobs. Apprenticeship training commonly lasts three to four years and includes not less than 2000 hours of on-the-job experience in all aspects of the craft. Most programs also include not less than 144 hours per year of related technical instruction at a vocational school or community college.
2. Educational leave programs allow union members to take approved extended absences for educational purposes. Some educational leave programs incorporate educational loan programs that provide low interest loans for union members.
3. Joint labor-management training programs are training and development processes that incorporate four unique characteristics. First, the program is governed jointly by the employer and employees. Second, the program focuses on training and personal development. Third, the program involves workers who are not usually reached by unilateral programs (Ferman, et al, 1991). Fourth, the program includes collaboration, cooperation, and conflict.

4. Skills training programs include personal development, personal enrichment, and technical training courses. These programs are developed to meet company, union, and union member perceptions regarding their need for increased skills.
5. Tuition assistance programs, support employees, spouses, and dependents during study at higher education institutions by providing funds for tuition, books, and supplies.

Organization of the Study

This study is organized in five chapters. Chapter One includes an introduction, justification, problem statement, purpose statement, research questions, limitations, and definitions. Chapter Two contains a review of related literature and research regarding current joint labor-management training programs. Chapter Three outlines the research design and methodology including a discussion of the population and sample, development of the content analysis guide, data collection procedures, and data analysis procedures. Chapter Four reports the findings based on the responses to the proposed content analysis guide, a description of the population, and an analysis of the data pertinent to the research questions. Chapter Five provides a summary, discussion, conclusions, and

recommendations. All chapters are concluded with a summary section that describes the information contained within the chapter.

Summary

During the past fifteen years, companies and unions have begun working together in nontraditional ways to increase product quality and production efficiency through worker participation. The most significant efforts have focused on joint training programs established through the collective bargaining process and cooperatively funded, administered, and operated. These programs have improved job security, expanded opportunities for workers, and stabilized union-management relations.

This chapter provides background information on these programs and discusses why unions and companies find these programs beneficial. Other sections describe the study's potential significance, outline the study's research focus, and discuss the study's possible limitations. Key terms used throughout the study are also defined in this chapter.

Chapter 2

Review of Related Literature and Research

Introduction

This chapter presents a review of the related literature and research regarding joint union-management training programs. The content analysis process, through which most data in this study were obtained, highlights only limited functions and elements of joint union-management training programs. Understanding the historic strands that have catalyzed development of these programs is needed to fully consider these powerful tools' potential applications.

This chapter also discusses definitive studies that have concentrated on various elements of this study's topic. These studies gathered information by surveying questionable samples and, by doing so, created serious limitations. This section reviews each study, highlights its major contributions, and discusses any limitations.

Historical Perspective

Since the late nineteenth century, organized labor unions have helped their members manage workplace changes by making sure the education and training they needed were available. The National Association of

Manufacturers was among the earliest supporters of vocational training in public schools, maintaining that students should be taught skills that would help American industry compete in world markets. Business and labor support virtually assured passage of two seminal vocational training bills, the Smith-Lever Act of 1914 and the Smith Hughes Act of 1917.

Labor leader Samuel Gompers, during a speech to the National Education Association in 1916, confirmed labor's commitment to lifelong learning saying, "...education must continue throughout life if the individual is to really live and make progress.... unions realize that education is an attitude toward life -- an ability to see and understand problems and to utilize information and forces for the best solution of life's problems" (Sarmiento, 1989, p.15). Gompers acknowledged that cooperation between union members and management was needed to achieve mutual goals, as he said "...industry, like government, can only exist by the cooperation of all... every edifice, every product of human toil is the creation of the cooperation of all the people... it is the right of all to have a voice and to share in an equitable proportion of the fruits of these collective enterprises." (Cohen-Rosenthal & Burton, 1987, p. 23).

In 1918, organized labor demonstrated its continuing support for free public postsecondary education. At its annual convention, the American

Federation of Labor endorsed the concept of junior colleges that would provide two years of tuition-free postsecondary education and allow students to remain at home (Gray, 1966).

During the 1920s, the Central Labor Council established Labor Colleges to provide education for organized labor union members. These colleges cooperated with local universities to provide college diplomas. In 1923, the National University Extension Association set up a standing committee on labor education. As workplace change accelerated, education and training began playing a broader role in organized labor unions' strategies for helping their members. The newly formed Congress of Industrial Organizations began emphasizing worker education as an organizing gambit and established an education department in late 1938. The CIO also asked each local affiliated union to establish an education committee and to set aside money for training of stewards and organizers. Formal training programs were still the exception, however, as most union members learned through on-the-job experiences (Gray, 1966).

Following World War II, union membership surged to almost 14 million members and their political influence grew proportionately. In 1947, organized labor unions pressed for passage of the G.I. Bill to provide educational opportunities for returning veterans. The unions were later able

to get the Labor Management Relations Act of 1947 amended to allow employer contributions to educational benefits trust funds (Gray, 1966).

The readjustment to a peacetime economy, however, brought inevitable economic disruption. Strikes were rampant and unemployment rose. In 1955, the American Federation of Labor and the Congress of Industrial Organizations merged into a single organization and had begun focusing on developing a strong but cooperative labor relations position. Union education committees became vehicles for political action, union building, and union loyalty. Union negotiators received extensive arbitration, negotiation, and collective bargaining training through universities. Local unions emphasized skills training and, especially among craft unions, controlled apprenticeship programs (Eiger, 1976).

Cooperative union-management programs were encouraged by many reports developed during the economic crises experienced by industry during the 1970's and early 1980's. Reports recommending increased cooperative union-management efforts included those published by the National Commission on Productivity and Work Quality, the National Commission on Work Peace, the National Productivity Advisory Committee, and the White House Conference on Productivity. These calls for more cooperative union-management relations emerged from a faith that more

cooperative relations would reduce problems caused by rising inflation, rapid structural changes, and reduced productivity rather than as an effort to avoid overt conflict (Kasselow, 1987).

During the early 1980s, organized labor unions vigorously opposed the regressive federal educational policies proposed by President Reagan stating, "What the Reagan administration has proposed is not simply a cut in programs but a reduction in the quality of education. Labor supports a massive national effort to provide quality education for all children and young people, wherever they may live, whatever their race or national background, whatever their family income. Only through such efforts can we realize our goals and objectives of providing equal opportunity needed for Americans to acquire the necessary tools for better life." (AFL-CIO, 1981, p.5). Included among the reductions that the organized labor unions opposed were massive federal cuts in the basic educational aid that had been distributed to the states.

Organized labor unions had also recognized that government and employer sponsored training programs would not provide the skills their members really need and had begun developing an unprecedented number of worker education and training programs. State AFL-CIO federations in Illinois, Indiana, Louisiana, Massachusetts, Michigan, Minnesota, Missouri,

Montana, New York, Pennsylvania, Tennessee, Texas, and Wisconsin received federal funds to develop significant worker training programs within the past ten years. These programs were among the most innovative worker training programs developed during this decade and often used actual job situations or materials to help workers learn within a functional context (Sarmiento, 1989).

During this same period, cooperative union-management sponsored literacy programs were begun at companies and were tied to a broader strategy to promote job security and advancement. The companies and organized labor unions involved in these programs recognized that raising an individual worker's basic and technical skill levels could also benefit the employer and the organized labor union. The individual workers gained job security as they gained skills; the employers experienced productivity increases and higher profits; and the organized labor unions continued to improve the lives of their members by improving their working conditions and insuring respect for their dignity and rights as workers.

Related Studies

This section describes the approach, design, and results found in the only three known studies that have addressed this study's topic. Subsequent

sections describe specific results reported by these studies as related to apprenticeship, training, tuition assistance, and educational leave programs.

United States Department of Labor, Bureau of Labor Statistics (1969)

In 1969, the United States Department of Labor, Bureau of Labor Statistics, published a comprehensive analysis of the negotiated training provisions in collective bargaining agreements. This study examined 1,823 major collective bargaining agreements that had been in effect during the 1966-67 time period and represented nearly all major collective bargaining agreements in effect during that time. Collective bargaining agreements covering railroads, airlines, and government agencies were not included. The study initially determined only the prevalence and location of training provisions in these contracts and did not include apprenticeship or short-term training provisions. Contracts having training provisions were analyzed in detail. Statements or phrases that illustrated commonly included clauses were excerpted and included in the report.

This study reported that only 344 (18.8%) of the 1,823 collective bargaining agreements included training provisions. These agreements covered about 2.4 million workers. However, the study's authors acknowledged that their data tended to understate the incidence of training, as compared to training provisions, in private industry. First, a significant

number of negotiated programs were outside the study's scope including apprenticeship programs and short-term familiarization training programs. Second, informal training programs and ad hoc training programs existed but were excluded from consideration due to the study's methodology.

The authors reported that clauses were concentrated in six industries, each accounting for more than 20 provisions. The six industries represented over 53.2% of the training clauses in the study and 72.5% of all workers covered by training provisions. These industries included transportation equipment, communications, machinery except electrical, primary metals, utilities, and food. It should be noted that the study's design, by excluding apprenticeship training provisions from consideration, effectively excluded the construction sectors since apprenticeships were the primary training process in this industry.

Three unions were parties to significant numbers of negotiated training and retraining provisions including the United Steelworkers, the United Auto Workers, and the International Brotherhood of Electrical Workers. These unions accounted for 1.8 million (75%) of the workers covered by training provisions.

The study's tabulations tended to reinforce basic beliefs regarding training in industry. Larger industries employing 10,000 or more workers

tended to provide about twice as much training (32.3%) for their workers when compared to smaller industries (17.1%). White collar workers, particularly professional workers who tended to use tuition assistance benefits, tended to benefit more than blue collar workers from the company's training investments.

Ferman & Hoyman (1987)

In 1987, University of Michigan researchers Louis Ferman and Michele Hoyman surveyed 204 employers regarding the training programs that they conducted jointly with organized labor unions. Fifty-five (27%) public sector organizations were included among the survey sample. This study's results were reported four years later in a book, Joint Training Programs, that Ferman and Hoyman co-authored with Joel Cutcher-Gersensfeld and Ernest Savoie.

This study's researchers noted that no lists of companies that had joint training programs were available at that time although lists that named union-management pairs were available (Cooke, 1990). The researchers used a list of employers that had indicated that they were engaged in joint union-management efforts. This list had been developed by the United States Department of Labor in 1978. These employers were primarily large, national companies with multiple locations and multiple bargaining units.

These characteristics were commonly associated with joint training programs and may have caused this study to overstate the amount of joint training that was occurring. The researchers acknowledged that their sampling frame was circumspect and described their approach as "... more like that used in a census than a survey." (p. 14).

This study's researchers administered a ten-page telephone survey and gathered information from 107 (52%) respondents. This survey gathered information regarding training frequency, training purposes, program characteristics, program structure, and program distribution by industry and geographic location.

The researchers found that 42% of the companies indicated they had training programs that were administered or operated cooperatively with an organized labor union. The respondents primary reasons for developing cooperative training programs included: improving employees' knowledge regarding safety and health (33%); upgrading employees' skills (26%); enhancing employees' basic skills (15%); and, meeting staffing needs (13%). The researchers expressed their curiosity regarding these responses noting that basic skill development was more important than they thought it would be and that emphasis on displaced worker services was surprising.

The researchers concluded that industries in heavy manufacturing or those that consistently found themselves at a competitive disadvantage were most likely to establish joint training programs. Industries listed as most likely to have joint training programs included communications, specialty chemicals, oil refineries, writing instruments, and transportation services. It should be noted that telephone communications and automobile manufacturing were undergoing substantial changes during the past two decades due to pressures from international competition and technological changes. Their inclusion on this list would tend to support the researchers' contention that industries and unions undergoing substantial change are more likely to participate in joint training programs.

Joint training programs were most likely to occur at companies located either in the midwestern United States or the "rustbelt" region. The researchers acknowledged that although they believed a regional bias toward joint programs existed, this distribution could also be attributed to the extant union-management relations environment found in other regions.

The researchers also found that larger firms were more likely to participate in joint training programs. At firms with more than 600 employees, 57% indicated they were participating in joint training programs. At firms with less than 600 employees, only 34 percent indicated they were

participating in joint training programs. The researchers did note that their data could be distorted since larger firms would be more likely to have the resources needed to participate in joint training programs, i.e. a training department.

Katz & Keefe (1993)

In 1993, Harry Katz and Jeffrey Keefe surveyed 800 private sector firms to determine the training practices and work restructuring that were occurring at large, unionized firms. Katz and Keefe noted that no prior comprehensive and systematic assessment of training activities underway at large unionized firms in the United States had been done. The firms included in this study's sample employed not less than 1,000 unionized employees and were gleaned from the United States Department of Labor, Bureau of Labor Statistics contract files.

The researchers mailed an eleven page questionnaire to the labor relations managers and union officers associated with each contract file. Union officers were not asked questions regarding expenditures or other matters that they would not have the information needed for accurately responding. Given 800 potential respondents in each category, responses were significant with 276 (35%) management and 155 (19%) union surveys returned. Further, 45 matched pairs were identified where a management

and union response covering the same bargaining unit was received. All information was analyzed and presented in tabular format in the study's appendices.

For some questions, the respondents were asked to contrast employee or company participation in a given activity in 1980 and 1990. Unfortunately, between these dates, many corporations have undergone personnel turnover in their labor relations managers. Records needed to provide precise responses to these questions were archived or were not maintained originally. Additionally, union officials responding to this survey were primarily elected union officials and were unlikely to have been serving in the same capacity in 1980. These conditions made accurate responses to questions requiring contrasting data more difficult and were a substantial limitation in the study.

The researchers found that the level of training provided for blue collar workers rose by one-third from 1980 to 1990. Managers reported that average workers received 42.5 hours (2% of their working time) of formal training during 1990. Managers also reported that the cost to the company for all types of training and education provided to unionized employees in 1990 averaged \$1121 per employee. This equals 4.5% of total hourly earnings based on average wages reported by management. It should be noted that

question phrasing influenced management responses to their survey.

Managers reported twice as high an amount if asked the total cost of education and training as compared to their responses to a question posed in terms of the number of hours devoted to training.

The average expenditure for all training activities was skewed because some firms were spending larger amounts on training. The median cost per blue collar employee was only \$501 versus the mean cost of \$1121. Consideration of only the mean expenditure level would result in a severe overestimate of the level of training being provided.

Training provided to unskilled blue collar employees focused on safety and health (9.5 hours), quality improvement (5.8 hours), and technical skills upgrading and refresher courses (4.8 hours). Remedial courses, touted as being needed by our nation's ill prepared workforce, were given only cursory attention with basic mathematics training (.5 hour) and basic English literacy (.4 hour) receiving almost no attention. Only 17 respondents indicated their firm provided remedial English courses while 31 indicated they provided basic math courses.

This study found that even though managers and union officials both felt substantial increases in training investments were warranted, employers were relatively satisfied with the skills held by their blue collar workers.

Managers did not indicate they anticipated any troubles hiring unskilled or skilled employees in the near future. Although saturated labor markets in the early 1990's may influence these findings, it does suggest that predictions of imminent critical skill shortages or recruitment difficulties were overstated. These findings are consistent with other studies that indicate employers are primarily concerned with the social skills, not the technical skills, held by their workforce (Capelli & O'Shaughnessy, 1993).

The study also found that seniority, new technology, reorganized work processes, and supervisor recommendations were the most important factors considered when selecting persons for training. The least important factors were tests, work samples, and performance appraisals. This performance oriented finding lends additional credibility to the premise that companies facing intense crises or competition are more likely to accept innovations, i.e., joint training programs.

Joint Union-Management Program Characteristics

Joint training programs' success is dependent on: the existence of a cooperative union-management relationship; an understanding by all parties of the potential value of new training initiatives; the commitment of substantial resources; leadership and vision; and the ability to manage a

complex and constantly evolving set of activities. Though one might expect programs with such stringent needs to be rare, they are actually quite common among larger companies.

Joint training programs share four general characteristics. First, joint training programs are governed jointly by unions and employers. These programs have increased input, especially from workers, into the content of training programs, powerful systems of checks and balances in program administration, and meaningful linkages with government and educational institutions. This contrasts with training programs that are governed unilaterally by the employers, unions, or government agencies.

Second, joint training programs focus on training and personal development. These programs offer personal development classes that hourly employees would not normally be offered, i.e., strategic planning skills or economic principles, as well as traditional, job specific training programs. Joint training programs focus more on employee goals during the training process rather than on employer goals.

Third, joint training programs involve workers who are not usually reached by unilateral programs. Employer sponsored training programs are generally aimed at professional, technical, and managerial employees (Fossum, 1990). Clerical and production employees tend to receive little

employer sponsored training and, if they do, it tends to focus on job specific skill building. In contrast, most union sponsored training is either skill oriented or applied training aimed at enhancing union members' abilities or apprenticeship training for skilled trades employees (Gray & Kornbluth, 1990). Most government sponsored training programs focus on disadvantaged persons who are subject to discrimination in the labor market (Levitan & Gallo, 1990). By comparison, most participants in joint training programs are active workers who have not traditionally had access to training (Katz & Keefe, 1993).

Fourth, although there is a great deal of collaboration and shared problem solving associated with joint training programs, there is also substantial conflict between the program's governing entities. Collaboration and conflict are generally acknowledged to be normal elements in the joint training process (Katz & Keefe, 1993).

Joint Training Program Categories

Joint union-management training programs included in collective bargaining agreements negotiated during the past fifteen years can be grouped into four categories. These categories include apprenticeship programs, training programs, tuition assistance programs, and educational

leave programs (Hansen, 1984; Savoie, 1985; Hansen, 1985; Rosow, 1986; Bron-Wojciechowska, 1989; Phelps, Brandenburg, & Jacobs, 1990; Ferman, et al, 1991; Cohen-Rosenthal & Burton, 1987; Roberts & Wozniak, 1994; Rosow & Casner-Lotto, 1994; and Ingram, 1995).

Apprenticeship Programs

The first category, apprenticeship programs, provides technical skill training for younger workers and is viewed as a passage to certain skilled jobs. These programs are a core activity for maintaining the unions' membership levels and their reputations as guilds of skilled workers. Apprenticeship training commonly lasts three to four years and includes not less than 2000 hours of on-the-job experience in all aspects of the craft. Most programs also include not less than 144 hours per year of related technical instruction at a vocational school or community college (Carnevale & Goldstein, 1990).

The United States Department of Labor, Bureau of Apprenticeship and Training found that apprenticeship programs have historically met only part of the training needs for craft workers. For example, not more than 0.4 percent of all persons employed in craft occupations completed apprenticeship programs in any single year between 1983-1990.

Ferman and Hoyman (1987) did not concentrate on apprenticeships but did note that 33% of the companies responding to their survey participated in apprenticeship programs that served their employees. Ferman and Hoyman did not contrast training provided through certified apprenticeship programs with all training provided by the company.

Katz and Keefe (1993) also did not focus their research efforts on apprenticeships and did not report how many respondents to their survey participated in apprenticeship programs. They did report, however, that only 4.6% of the total training provided by responding companies for unskilled workers was provided through certified apprenticeship programs. This figure is in stark contrast to the training provided by in-house trainers (43.7%) and on-the-job training processes (34.6%).

Katz and Keefe further reported that only 5.7% of the total training given skilled workers were provided through certified apprenticeship programs. Though in-house trainers (21.7%) and on-the-job training processes (13.6%) continued to be important means for providing training for these workers, skilled workers frequently were trained by equipment vendors (14.2%) or local community colleges (11.2%).

Apprenticeship program participation decreased during the early 1980's but has recently begun recovering. The United States Department of

Labor, Bureau of Apprenticeship and Training reported that between 1980-1987, the number of registered apprentices in all occupations shrunk from 313,000 to 243,000 persons. Recently, these rolls have shown slight increases. For example, approximately 38,000 apprentices completed their four year training program in 1987 while 100,400 became newly indentured (Carnevale & Goldstein, 1990).

The building trades have historically had the largest apprenticeship programs. Three construction areas - carpentry, electrical work, and pipe trades - enrolled nearly forty percent of all registered apprentices (Carnevale & Goldstein, 1990) during the 1980-1990 period.

Skills Training Programs

The second category, skills training programs, includes personal development, personal enrichment, and technical training courses. These programs are developed to meet company, union, and union member perceptions regarding the need for developing increased skills. Petersen (1987) noted that today's intensely competitive environment is a clear signal that workers need even more skills and a more solid foundation on which to build their careers. Besides technical skills, Petersen noted that companies would need workers who will understand and commit to common goals,

accept responsibility for their work, and contribute their personal best to the job every day.

The United States Department of Labor, Bureau of Labor Statistics (1969) acknowledged that training provisions were becoming commonplace in collective bargaining agreements and noted that 74% of all agreements analyzed in the study included some provisions regarding technical training. These provisions generally (98%) stipulated on-going, on-the-job training programs focused on meeting the employer's staffing needs. These programs included those which would certify employees in new technology operations or facilitate their movement into administrative or managerial positions.

Ferman and Hoyman (1987) reported that the primary reasons companies and unions enter into joint training programs included improving employee knowledge regarding safety and health (73%), upgrading employees skills (58%), improving employees communications skills (53%), and enhancing employees personal development (34%). Obviously, programs developed to achieve these purposes meet both employer and employee needs. For example, upgrading an individual employee's job skills theoretically increases the employee's job security. These increased skills should also benefit the company as the employee should also be more productive.

Among the services which Ferman and Hoyman reported companies were providing for active workers were skills upgrading (45%), vocational training (44%), new technology instruction (42%), career retooling (42%), and personal skills development (38%). These services seemed to be oriented toward meeting demands placed on companies and employees by a changing economy. This further supports Ferman and Hoyman's contention that companies facing crises or competition are more likely to participate in joint training programs.

Katz and Keefe (1993) did not analyze why companies or unions participate in joint programs but did report the average number of hours skilled and unskilled workers participated in specific skill development courses. The researchers noted that skilled workers received training in technical skills upgrading or refreshers (12.8 hours), safety and health (11.1 hours), new technology (8.2 hours), and quality improvement processes (5.9 hours). Unskilled workers received substantially less training each year with most of their training focused on safety and health (9.5 hours), quality improvement processes (5.8 hours), technical skills upgrading or refreshers (4.8 hours), new technology (3.7 hours), and statistical process controls (2.8 hours).

Training is most frequently provided through in-house, on-the-job processes. The United States Department of Labor, Bureau of Labor Statistics (1969) reported that training provisions largely stressed on-the-job instruction rather than outside, job schooling. Katz and Keefe (1993) noted that training for skilled workers was most frequently provided through in-house trainers (35.9%), on-the-job training (27.2 %), and equipment vendors (10.5%). Training outside the company locations was limited and was most frequently provided through community colleges (8%) or vocational schools (4.8%).

Ferman and Hoyman (1987) did not analyze training providers but did note that a substantial percentage (48%) of their respondents reported they were offering joint training classes at both on-site and off-site locations while a much smaller percentage (28%) reported that their classes were being offered only at their work site. Their data conflicts with other studies and indicate a need for further research regarding how class locations and training providers are determined.

Ferman and Hoyman did note that even though special equipment needs were an important constraint in determining where classes would be taught, an increasing number of companies were setting up specialized learning labs were being set up on-site.

Tuition Assistance Programs

The third category, tuition assistance programs, support employees, spouses, and dependents during study at higher education institutions by providing funds for tuition, books, and supplies. These programs are among the more traditional approaches unions and managements have used to upgrade employees' job skills.

Tuition assistance programs have become more commonplace during the past fifteen years. The United States Department of Labor, Bureau of Labor Statistics (1969) reported that only 15% of those companies responding to its survey included tuition assistance among their collective bargaining provisions. The department noted that white collar workers, if covered by training assistance clauses, were more likely than blue collar workers to use the available tuition assistance.

Ferman and Hoyman (1987) found that 38% of the companies responding to his survey included tuition assistance clauses in their collective bargaining agreements. Typically, these plans would reimburse certain tuition and fees to eligible employees or persons after they successfully completed an approved course. This approach motivates employees to stay in the class and complete it since if the employee drops out, neither the union nor the employer has to pay tuition.

Savoie (1985) found that tuition assistance issues covered in the collective bargaining agreements varied by industry and company with employee eligibility, courses covered, expenses covered, and reimbursement caps among the most commonly included clauses.

Educational Leave Programs

The fourth category, educational leave programs, supports organized labor union members during extended absences for educational purposes and allow them to complete college degrees. Some educational leave programs incorporate educational loan programs that provide low interest loans for union members who elect to take educational leave. These programs are most frequently developed by companies willing to use experimental approaches to improving managerial practices and unions committed to workplace democracy (Warren, 1986).

Unfortunately, no definitive study has thoroughly examined the educational provisions of collective bargaining agreements. Anecdotal studies of individual programs, i.e. the United Auto Workers - General Motors Paid Educational Leave program provide insight into the potential impact of this program category (Schurman, Hugentobler, & Stack, 1991).

Joint Union-Management Program Costs and Benefits

The available empirical evidence suggests that companies and unions respond to change and competition by either altering their union-management relationship or maintaining the status quo based on a cost-benefit analysis of the likely outcomes of collaboration versus relative power tactics (Cooke, 1990). This cost-benefit analysis process is dictated by the companies' and unions' respective values, beliefs, and rules as well as their historic relationships (Kochan, et al, 1987).

Many benefits associated with joint training programs accrue at least partially due to the joint structure inherent to these programs. First, the joint structure provides an important vehicle for high levels of participation by unions and employees in determining the programs offered at any given site. This high level of participation in determining program content would logically portend a higher level of participation in the programs when they are offered. Second, the checks and balance built into the programs' administrative and governance processes ensure that multiple constituencies' needs will be met. This empowerment has positive, reinforcing effects.

Third, as a team, unions and employers are more able to negotiate beneficial agreements with educational institutions. Fourth, these joint programs tend to be more lasting than unilateral programs since they cannot

be discontinued without the consent of the other parties (Ferman, et al, 1991; Katz & Keefe, 1993; Ingram, 1995).

Joint training programs are not without financial and 'political' costs. These programs are often conducted concurrently with unilateral programs and are most often an added cost to the company. Since many parties are involved in the decisionmaking regarding program content, a broader range of training activities is likely to be offered. It should also be noted that evaluating these programs and assessing their long term benefit is difficult since they are still so new.

Once underway, joint training programs are funded primarily through company contributions and are based on the number of worker hours logged during a specified contract period. These funds, however, represent monies that the organized labor union otherwise would have won for the workers during the collective bargaining process as wages, pensions, or benefits. Thus, the funds are essentially coming from the workers (Phelps, Brandenburg, & Jacobs, 1990).

Exemplary Joint Training Programs

Any selection of case studies of joint union-management training programs is bound to be arbitrary and thus raise the charge that they are

biased. There is considerable variability and no case is truly typical (Ferman, et al, 1991). Rather, the examples discussed in this section are, though prominent in the body of literature related to this subject, intended only to illustrate specific operational issues or program categories. They should not be construed as being representative of all joint union-management training programs.

The United Auto Workers, the Communications Workers of America, the United Steel Workers, and the International Brotherhood of Electrical Workers have experienced particular success in negotiating joint training programs.

The United Auto Workers

The United Auto Workers are generally acknowledged to have originated joint educational programming through the collective bargaining agreement negotiated with Ford Motor Company in 1982 and is, therefore, the most mature program. Currently, the Big 3 automakers pay 19 cents per worker hour into an employee educational assistance fund for which over 400,000 union members are eligible.

Through its joint training programs, General Motors has spent \$1.6 billion through its employee educational assistance program since 1984 including \$128 million in tuition assistance at educational institutions. This

expenditure has provided over 26 million educational hours for 272,000 employees and does not include the training that the company provides on its own.

Ford Motor Company has 48,000 active employees currently enrolled in its College and University Options Program that uses instructors from 140 “partner” educational institutions. Through 1993, 1800 Ford workers had graduated from 28 associate’s, 19 bachelor’s, and 6 master’s degree programs. Ford also has 39,000 active employees enrolled in its Personal Development Assistance courses and an additional 55,000 workers and spouses in their on-site skills enhancement programs (Petersen, 1987). These programs included reading, computer skills, GED instruction, and ESL instruction (Phelps, et al., 1990; Hequet, 1994).

The Communications Workers of America

The Communications Workers of America, along with the International Brotherhood of Electrical Workers, began their employee learning assistance program through the collective bargaining agreement negotiated with AT&T in 1983. After some dismal experiences with home study courses, these partners established a private non-profit corporation, The Alliance for Employee Growth and Development, to manage what has become an effective employee training program. The Alliance depends on

local union-management committees to identify local training needs, identify training resources, and oversee training efficacy. Training activities offered to date include a wide range of activities including personal development, work related skill building, and tuition assistance programs. This program has served over 90,000 union members since its inception and has provided over 300,000 training activities (Ingram, 1995).

The Alliance's programs are funded through a flat \$220 per employee per year contribution made by the company. The 1995 budget is based on 1992 employment levels and exceeds \$22 million. Due to corporate downsizing, approximately 85,000 union members are currently eligible to participate in training activities through this program (Ingram, 1995).

Following AT&T's divestiture of its regional operating companies in 1984, the unions negotiated collective bargaining agreements with these new companies that have provided life long learning and career development funds. Currently, over 250,000 CWA members are eligible to participate in educational programs funded through joint training agreements with several regional phone companies. These joint educational programs provide career counseling, career development, personal enrichment, college tuition assistance, and outplacement assistance. For example, US West allows its workers up to \$1800 each year for courses and books at over 1300 colleges

and technical schools. Workers can also use up to \$300 of those funds for personal growth courses (Hequet, 1994).

The United Steel Workers

The United Steel Workers began their employee learning assistance programs in 1989 when they agreed to a contract that requires 12 major steel companies to contribute 10 cents per worker per hour to fund an organization that works through local union halls to identify and meet worker training needs. Training is coordinated by a nonprofit training institute, the Institute for Career Development, with funds allocated to union members at established sites across the nation based on the number of worker hours accrued at that site in the previous year (Lisnow, 1995).

Approximately 100,000 United Steel Workers members are currently eligible to participate in these joint funded programs. Training needs are locally determined through union-management committees. Training services are coordinated by the Institute and provided nationwide by 145 vocational institutes, training centers, community colleges, universities, and private training providers.

To date, classes have focused on career development for displaced steelworkers leaving the steel industry as well as classes that help active steelworkers upgrade their basic job skills and pursue personal educational

goals. Classes are held at plant sites, local union halls, or local training sites (Hequet, 1994). It should be noted that only twenty percent of the funds allocated through this agreement to workers at any specific work site may be used for tuition assistance. Eighty percent must be used for training activities that upgrade work skills (Lisnow, 1995).

Summary

This chapter presents a review of the related literature and research regarding joint union-management training programs. Included in this information is a discussion of the historical strands that have catalyzed development of these programs. Information regarding joint union-management program characteristics, categories, costs, and benefits is also included in this chapter.

This chapter also discusses definitive studies that have concentrated on various elements of this study's topic. This section reviews each study, highlights its major contributions, and discusses any limitations.

This chapter also highlights exemplary joint training programs offered by four unions: the United Steelworkers; the United Autoworkers; the Communications Workers of America; and the International Brotherhood of

Electrical Workers. These model programs include innovative ideas that readers may want to replicate when designing joint training programs.

Chapter 3

Research Design and Methodology

Introduction

This chapter describes the research design and the methodological procedures that were used to complete the study. Further, it describes the population examined during the study and discusses the rationale for their selection. In addition, this chapter discusses the content analysis research technique and the systematic framework used to extract information from the population.

Population

The population for this study was 798 collective bargaining agreements identified through an intensive analysis of all collective bargaining case files held by the United States Bureau of Labor Statistics, Division of Industrial Relations, Department of Labor-Management Relations. Each collective bargaining agreement included in the study met three criteria:

1. The agreement was in effect between January 1, 1990, and January 1, 1995, removing inactive agreements from consideration.

2. The agreement included specific content, i.e., articles or clauses, regarding apprenticeships, training programs, educational assistance programs, or tuition assistance programs and indicated that the parties were sharing responsibility for operating, managing, and evaluating critical program functions.
3. The agreement covered 1,000 or more employees. This criterion focuses the study on larger corporations that have had more extensive experience with joint union-management training programs.

Each master file examined during the study included, but was not limited to, the collective bargaining agreement, health benefit programs booklets, retirement plan booklets, and correspondence with the company and union that were party to the agreement. A list of all files included in the study can be obtained by contacting the researcher. Contact information can be found in Appendix B.

Research Design

The type of research conducted during this study was descriptive. Descriptive research involves data collection in order to answer questions concerning the current status of the population or sample under investigation in the study. This type of study systematically describes the facts and

characteristics of a given population or area of interest with a certain degree of accuracy (Issac & Michael, 1990).

Descriptive research focuses on describing, recording, analyzing, interpreting, and reporting conditions that presently exist (Gay, 1992). This type of research frequently involves some contrast or comparison and attempts to identify relationships between existing non-manipulated variables (Best & Kahn, 1989). Descriptive research is also among the most manageable, resource efficient research designs (Poister, 1978) since it does not require the researcher to inhibit or interfere with the operation of the program or process.

Research Methodology

This research used content analysis methodology to analyze the data. Berelson (1952) defined content analysis as a research technique for the objective, systematic, and quantitative description of content. Krippendorff (1980) extended this definition by stating that content analysis research techniques must also be capable of making replicable and valid inferences from the data. Kolbe and Burnett (1991) provided a comprehensive definition, declaring content analysis to be an observational research method that is used to systematically evaluate the content of specific communications.

Content analysis is most effectively conducted within a systemic framework. As the data gathered through content analysis are placed into analytical constructs, based on the researcher's knowledge of surrounding conditions, inferences develop that are sensitive to the data's context (Krippendorff, 1980). Contextual knowledge for this study was gained by reviewing available literature, analyzing similar studies, and interviewing researchers familiar with current joint training program initiatives.

Strengths

The content analysis research technique offers numerous benefits for researchers. First, content analysis allows unobtrusive appraisal of any communications. This unobtrusiveness is particularly valuable in situations in which direct methods of inquiry might yield biased responses and jeopardize the data's validity.

Second, content analysis provides an empirical starting point for generating new research evidence about the nature, impact, and effect of specific communications or actions. For example, content analyses regarding the availability of training programs in unionized private sector companies may help policymakers determine appropriate federal guidelines regarding mandatory training access in non-unionized firms.

Third, content analysis has demonstrated significant potential as a companion research method in multi-method studies (Brewer & Hunter, 1989). Multi-method research uses divergent methods to enhance the validity of results by mitigating method biases. For example, survey results can be compared with content analysis to determine if there are divergences among the data.

Limitations

Though the content analysis research technique has many potential benefits, it also has inherent weaknesses. First, this method is susceptible to researcher biases which can affect decisions made regarding data collection, analysis, and interpretation. Given that researchers using content analysis methods may draw inferences based on contaminated data, these biases can affect a study's contribution.

Second, content analyses are constrained in their potential since they are frequently limited to reporting specific communication or actions. This exploratory approach makes it difficult to consider theoretical perspectives.

Third, content analysis often yields categorical data. Although these data are rich in descriptive, classificatory, or identifying elements, they may be less sensitive to subtleties (Kolbe & Burnett, 1991).

Fourth, reliance on the coefficient of agreement method for determining reliability can distort results if measures are not taken to reduce the probability of intercoder agreement by chance. The potential impact of this limitation can be reduced by increasing the total number of response categories. This probability can also be decreased by reducing the number of response categories for which answers will seldom be available (Krippendorff, 1980).

Instrumentation

This section discusses the instrumentation used to systematically extract information from the collective bargaining agreements examined during this study.

Content Analysis Guide

During the study, all collective bargaining agreements were analyzed using the content analysis guide exhibited in Appendix A. This guide helped the researcher extract information regarding company and union demographics, program characteristics, and funding patterns from the collective bargaining agreements. A coding system, exhibited in Appendix C, facilitated use of machine readable entries and an optical mark reader processing system.

The content analysis guide includes 27 principal categories germane to this study. These categories were selected based on the researcher's general knowledge and by reviewing available literature, analyzing similar studies, and interviewing researchers familiar with current joint training program initiatives.

A thesaurus approach was used to identify the terms, sentences, and phrases that were used in the guide. Terms, sentences, and phrases found in 50 randomly selected collective bargaining agreements included in the study were compiled. The terms used most frequently in these agreements were included in the guide after being reviewed by other researchers in this field for clarity, comprehensiveness, and representativeness.

This guide served three purposes. First, it defined which data were to be analyzed, how they were to be defined, and from which population they were to be drawn. This facilitated critical examination of the data and increased the study's replicability.

Second, it clarified the target of the inferences made by the researcher. The clear directions provided by the guide allowed the researcher to determine which data were needed to achieve the study's research objectives. Third, the guide helped the researcher build an analytical construct. This

analytical construct served as a bridge between the available data and the external context within which inferences were drawn.

Reliability

If research results are to be valid, the data on which they are based, the individuals involved in the analysis, and the processes that yield the results must be reliable (Krippendorff, 1980). Reliable data are obtained independent of the measuring event, instrument, or person, and remain constant throughout variations in the measuring process (Kaplan & Goldsen, 1965).

Krippendorff (1980) stated that, in content analysis, reliability is determined by three measures: stability, reproducibility, and accuracy. He defined stability as the degree to which a process is unchanging over time and becomes evident under test-retest conditions. Reproducibility is defined as the degree to which a process can be recreated under varying circumstances, at different locations, using different coders. Reproducibility is also termed "intercoder or interjudge reliability" or "intersubjective agreement." Finally, he defined accuracy as the degree to which a process functionally conforms to a known standard. To establish accuracy, responses determined by one coder, or one set of coders, should be compared with

what is known to be the correct measure or with the responses of a second coder or second set of coders.

During this study, reliability was ensured by having three qualified coders complete optically scannable forms for 17 randomly selected collective bargaining agreements. These agreements represented two percent of the collective bargaining agreements included in the study.

Prior to coding the agreements, each coder was trained regarding the study's purpose, specific terms, data collection processes, and data coding processes. Coders completed the coding process individually and were asked not to discuss their observations or responses among themselves. These measures were taken to ensure coder independence.

Approximately five days later, each coder was asked to complete a second optically scannable form for the same 17 collective bargaining agreements. Individual coder reliability was determined by comparing data inputs provided by each coder on the first and second optically scannable forms to determine if any variation could be observed in their responses over time. Intercoder reliability was determined by comparing data inputs provided by all coders on the first and second optically scannable forms.

Accuracy and, by extension, reliability were determined by dividing the total number of agreements by the total number of coding decisions. No

errors were observed making modification of the coefficient of agreement unnecessary.

Treatment of the Data

Restatement of the Purposes and Research Questions

This study had two purposes. First, the study systematically collected and analyzed information regarding existing joint labor-management training programs that were established and conducted through collective bargaining agreements. The focus of the study included four program types: apprenticeships, training programs, educational leave programs, and tuition assistance programs. Second, the study identified potentially valuable policy, pedagogical, or technical lessons learned through these programs.

This study achieved its purposes by conducting research and analysis that focused on three research questions:

1. What are the most common joint union-management training programs included in collective bargaining agreements?
2. What are the characteristics of common joint union-management training programs?

3. What are the geographic, union affiliation, and standard industrial classification distributions of joint union-management training programs?

Data Collection

During the data collection process, 1,608 collective bargaining agreement files held by the United States Bureau of Labor Statistics, Division of Industrial Relations, Department of Labor-Management Relations were examined. Collective bargaining agreements meeting three criteria were included in the study. First, the agreement had to be in effect between January 1, 1990, and January 1, 1995, removing inactive agreements from consideration. Second, the agreement included specific content, i.e. articles or clauses, regarding apprenticeships, training programs, educational assistance programs, or tuition assistance programs and indicated that the parties were sharing responsibility for operating, managing, and evaluating critical program functions. Additionally, the agreement had to include language that indicated that the company and the union were sharing responsibility for operating, managing, and evaluating critical program functions. Third, the agreement had to cover 1,000 or more employees. This criterion focused the study on larger corporations that have had more extensive experience with joint union-management training programs. The

data collection process identified 798 collective bargaining agreements that met the criteria.

During the research, 810 collective bargaining agreements were examined that did not meet the study criteria. This group included 296 agreements that were not in force during the specified January 1, 1990 through January 1, 1995 period. These agreements represented 18.4% of all agreements that were examined.

Another 19 agreements were examined that did not meet the 1000 employee threshold. These agreements represented 1.2% of all agreements that were considered.

The 315 agreements that were either out-of-date or did not meet the employee threshold were automatically excluded from the study and were not examined to determine if they included contractual language regarding skill development, tuition assistance, educational leave, apprenticeship, or joint training programs. Combined, agreements excluded for these reasons represented 19.5% of all agreements that were examined.

Another 495 agreements were excluded from the study because they did not include any contractual language regarding skills development, tuition assistance, educational leave, apprenticeship, or joint training

programs. These agreements represented 30.7% of all agreements that were examined.

A master file was established by the researcher for each agreement that met the criteria. Each master file included, but was not limited to, appropriate excerpts from the collective bargaining agreement, health benefits literature, retirement plan booklets, and correspondence between the company and union. Articles from popular literature sources regarding any specific agreement were also included in that agreement's master file.

Data Analysis Procedures

The content analysis guide in Appendix A was used to analyze the 798 collective bargaining agreements included in the study. Information needed to answer the research questions was extracted from each agreement's master file and transferred onto an optically scannable form using a coding system developed specifically for this study.

The optical mark reader system used to process the data was a fast and accurate method of entering data. If the responses were machine readable, the data results were 100% accurate. Four conditions, however, could cause a non-machine readable response: stray pencil marks that distorted the timing; damaged forms that would not pass through the scanner; responses that were not completely darkened ; and any creases or folds that were on a form.

Due to inevitable human error, two quality control procedures were followed during this study's data analysis. First, the forms were placed in sequence based on their Bureau of Labor Statistics case file number. During this process, forms were previewed for any potential problems. Any stray pencil marks found outside the form's marking circles were erased. Any damaged forms were discarded and not used to record responses.

Second, 50 randomly selected records were manually compared to ensure they had been properly prepared and machine read. No errors were found during this process.

The data were analyzed using Statistical Analysis Software, Release 6.07. This powerful statistical analysis software allowed manipulation of the data to produce the descriptive statistics of proportions, percentages, ratios, and rates, that were used to describe the collected data. Relational measures were also used, when appropriate, in a summary fashion to express frequencies found within a given category or combination of categories.

Specific statistical analyses related to each research question were completed. The following section restates each research question and describes the procedure used to provide the information needed to fully answer the question. The questions mentioned in this section, i.e., question 1i or questions 24 a-i, refer to those questions in the content analysis guide.

Research Question 1. What are the most common joint union-management training programs included in collective bargaining agreements?

Program Types. Frequency distributions were used to describe responses to questions 4, 5, 12, and 15 and determine which programs occurred most commonly among the study's population.

Research Question 2. What are the characteristics of common joint union-management training programs?

1. **Technical Training Program Characteristics By Union Affiliation.**

Cross-tabulations and frequency distributions were used to determine the characteristics of common joint union-management program types that occurred in agreements linked to specific unions. These analyses were used to describe responses to questions 4 a-j and linked them with the union affiliations listed in response to question 2-j.

2. **Technical Training Program Characteristics By Standard Industrial**

Classification. Cross-tabulations and frequency distributions were used to determine the characteristics of common joint union-management program types that occurred in agreements linked to specific standard industrial classifications. These analyses were used

to describe responses to questions 4 a-j and linked them with the standard industrial classifications listed in response to question 1-i.

3. Tuition Assistance or Reimbursement Program Characteristics By Union Affiliation. Cross-tabulations and frequency distributions were used to determine the tuition assistance or reimbursement programs and program characteristics that occurred in agreements linked to specific unions. These analyses were used to describe responses to questions 6, 7, 8, 9, and 10 and linked them with the union affiliations listed in response to question 2-j.
4. Tuition Assistance or Reimbursement Program Characteristics By Standard Industrial Classification. Cross-tabulations and frequency distributions were used to determine the tuition assistance or reimbursement programs and program characteristics that occurred in agreements linked to standard industrial classifications. These analyses were used to describe responses to questions 6, 7, 8, 9, and 10 and linked them with the standard industrial classifications listed in response to question 1-i.
5. Educational Leave Program Characteristics By Union Affiliation. Cross-tabulations and frequency distributions were used to determine the educational leave programs and program characteristics that

occurred in agreements linked to specific unions. These analyses were used to describe responses to questions 12 and 13 and linked them with the union affiliations listed in response to question 2-j.

6. Educational Leave Program Characteristics By Standard Industrial Classification. Cross-tabulations and frequency distributions were used to determine the educational leave programs and program characteristics that occurred in agreements linked to specific standard industrial classifications. These analyses were used to describe responses to questions 12 and 13 and linked them with the standard industrial classifications listed in response to question 1-i.
7. Apprenticeship Program Characteristics By Union Affiliation. Cross-tabulations and frequency distributions were used to determine apprenticeship programs and program characteristics that occurred in agreements linked to specific unions. These analyses were used to describe responses to questions 15, 16, 17, and 18 and linked them with the union affiliations listed in response to question 2-j.
8. Apprenticeship Program Characteristics By Standard Industrial Classification. Cross-tabulations and frequency distributions were used to describe apprenticeship programs and program characteristics that occurred in agreements linked to specific standard industrial

classifications. These analyses were used to describe responses to questions 15, 16, 17, and 18 and linked them with the standard industrial classifications listed in response to question 1-i.

9. Program Management Characteristics. Frequency distributions were used to describe responses to questions 20 and 21.
10. Participant Selection By Standard Industrial Classification. Cross-tabulations and frequency distributions were used to describe responses to questions 22 and 23 and link them with the standard industrial classifications listed in response to question 1-i.
11. Assistance To Terminated or Outplaced Workers By Standard Industrial Classification. Cross-tabulations and frequency distributions were used to describe responses to questions 24 a-i and link them with the standard industrial classifications listed in response to question 1-i.
12. Program Funding By Standard Industrial Classification. Means, ranges, cross-tabulations , and frequency distributions were used to describe responses to questions 25, 26, and 27 and link them with the standard industrial classifications listed in response to question 1-i.

Research Question 3. What are the state and regional distributions of joint union-management training programs?

Program Type Distribution By State and Region. Cross-tabulations and frequency distributions were used to describe responses to questions 4, 5, 12, and 15 and link them with the geographic distribution as represented in response to question 3-c.

Summary

This chapter reviews the research design and the methodological procedures used during the study. It describes the population examined during the study and discusses the rationale for their selection. The content analysis research technique and the systematic framework used to extract information from the population are also described. In addition, the methods used to analyze the data in order to fully answer the research questions are presented.

Chapter 4

Data Analysis and Findings

Introduction

This chapter reports the data analysis of the research questions of this study and is organized in four sections. The first section describes the methodological procedures used. The second section describes the most common union-management joint training programs. The third section describes these programs' principal characteristics. The fourth section describes the geographic, union affiliation, and standard industrial classification distribution of these programs. A chapter summary is also included.

Description of the Study Population

The study consisted of 798 collective bargaining agreements identified through an intensive content analysis of the collective bargaining case files maintained by the United States Bureau of Labor Statistics, Division of Industrial Relations, Department of Labor-Management Relations. Each collective bargaining agreement studied was in effect between January 1, 1990, and January 1, 1995, thus removing dated agreements from consideration.

Each agreement also included specific content, i.e., articles or clauses, regarding apprenticeships, training programs, educational assistance programs, or tuition assistance programs. Each agreement, in addition, included language that indicated labor and management were sharing responsibility for operating, managing, and evaluating critical joint program functions.

Only agreements with private sector firms employing 1,000 or more employees were included in order to focus the study on larger corporations. These firms have had more extensive experience with joint union-management training programs than smaller firms.

During the period covered by this study, the United States Bureau of Labor Statistics, Division of Industrial Relations, Department of Labor-Management accepted only agreements that covered not less than 1,000 employees for inclusion in their archives. During this time, 135 unions submitted collective bargaining agreements that met this threshold and were with private sector firms. This study's population included agreements with 79 (59%) of these unions.

This agency also cross-indexes agreements by the standard industrial classification of the company involved in the agreement. This study's

population included companies classified within 47 (65%) of the 72 standard industrial classifications appropriate for private sector companies.

The study's population is described in Table 1. This table sorts the agreements based on the specific union that was party to the agreement. Table 1 also describes the number and frequency of agreements that included skills training, tuition assistance, educational leave, and apprenticeship provisions.

The study's population is also described in Table 2. This table sorts the agreements based on the two digit standard industrial classification grouping of the firm that is party to the agreement. The number and frequency of agreements that included skills training, tuition assistance, educational leave, and apprenticeship provisions is also included in this table.

Data Analysis

Three research questions were explored to (1) determine the most common joint union-management training programs included in this study; (2) analyze the characteristics of joint union-management training programs included in this study; and (3) identify the geographic, union affiliation, and

Table 1

Joint Training Programs Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements	Skills Training	Tuition Assistance	Educational Leave	Apprenticeship Training				
			n	% ¹	n	% ¹	n	% ¹		
100	AFL-CIO Union, Single Company	6	6	100	0	0	1	16	6	100
101	Independent Union, Single Company	3	3	100	1	33	1	33	3	100
107	Industrial Workers	5	4	80	2	40	1	20	4	80
108	Bakery, Confectionery, and Tobacco Workers	5	5	100	2	40	1	20	4	80
112	Boilermakers	11	11	100	1	9	0	0	9	82
115	Bricklayers	11	10	91	0	0	0	0	11	100
116	Iron Workers	14	14	100	4	29	0	0	14	100
118	Service Employees	17	17	100	14	82	7	41	3	18
119	Carpenters	65	65	100	2	3	0	0	64	98
120	Cement, Lime, Gypsum, and Allied Workers	1	1	100	0	0	0	0	1	100
121	Chemical Workers	9	9	100	4	44	0	0	6	67
127	Electrical Workers	85	85	100	34	40	7	8	66	78
128	Elevator Constructors	1	1	100	0	0	1	100	1	100
129	Operating Engineers	34	34	100	0	0	0	0	34	100
132	Firemen and Oilers	1	1	100	1	100	0	0	0	0
134	Ladies Garment Workers	1	1	100	0	0	0	0	0	0
135	Glass Bottle Blowers	10	10	100	2	20	0	0	10	100
137	Flint Glass Workers	1	1	100	1	100	1	100	0	0
141	Leather Goods, Plastics and Novelty Workers	1	0	0	1	100	0	0	0	0
142	Hatters	1	1	100	0	0	0	0	0	0
143	Laborers	57	57	100	0	0	0	0	28	49
145	Hotel and Restaurant Employecs	4	4	100	1	25	0	0	2	50
153	Tile, Marble, and Terrazzo Finishers	2	2	100	0	0	0	0	1	50
161	Molders	1	1	100	0	0	0	0	1	100

¹ This number represents the percentage of collective bargaining agreements with the individual unions listed in column 2 that included the specific training provision appropriate to this column.

Table 1 (Continued)

Joint Training Programs Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements	Skills Training		Tuition Assistance		Educational Leave		Apprenticeship Training	
			n	% ¹	n	% ¹	n	% ¹	n	% ¹
163	Office and Professional Employees	4	4	100	3	75	1	25	0	0
164	Painters	14	14	100	1	7	0	0	14	100
168	Plasterers and Cement Masons	1	1	100	0	0	0	0	1	100
170	Plumbers	30	30	100	1	3	0	0	29	100
184	Retail Clerks	1	1	100	0	0	0	0	1	100
186	Scaffolders	1	1	100	0	0	0	0	1	100
187	Sheet Metal Workers	7	7	100	5	71	0	0	7	100
192	Theatrical Stage Employees	1	1	100	1	100	0	0	1	100
197	Transit Union	1	1	100	0	0	0	0	1	100
199	Teachers	1	1	100	1	100	0	0	0	0
208	Grain Millers	2	2	100	1	50	0	0	2	100
218	Machinists	41	41	100	20	49	4	10	40	98
220	Aluminum, Brick, and Glass Workers	3	3	100	1	33	0	0	2	67
221	Novelty and Production Workers	1	0	0	1	100	0	0	0	0
231	Paperworkers	20	20	100	4	20	0	0	18	90
239	Longshoremen	2	2	100	1	50	0	0	1	50
244	Graphic Communications	9	9	100	5	56	0	0	8	89
302	Auto Workers	48	47	98	34	71	25	56	40	83
305	Clothing and Textile Workers	7	7	100	3	38	7	13	2	25
319	Marine Engineers	3	3	100	1	33	0	0	3	100
321	Maritime Union	1	1	100	0	0	0	0	0	0
323	Newspaper Guild	4	4	100	2	50	1	25	3	75
332	Retail, Wholesale, and Dept. Store Union	4	4	100	2	50	1	25	2	50
333	Rubber Workers	10	10	100	3	30	2	20	5	56

¹ This number represents the percentage of collective bargaining agreements with the individual unions listed in column 2 that included the specific training provision appropriate to this column.

Table 1 (Continued)

Joint Training Programs Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements	Skills Training		Tuition Assistance		Educational Leave		Apprenticeship Training	
			n	% ¹	n	% ¹	n	% ¹	n	% ¹
335	Steel Workers	58	56	96	25	43	16	28	51	88
341	Transport Workers	2	2	100	1	50	0	0	0	0
342	Utility Workers	4	4	100	0	0	0	0	4	100
343	Woodworkers	2	2	100	1	50	0	0	2	100
346	Communications Workers	26	26	100	23	88	4	16	6	23
347	Electronic and Electrical Workers	11	11	100	7	64	4	40	8	73
352	Broadcast Employees	2	2	100	1	50	0	0	0	0
354	Mechanics Educational Society	1	1	100	0	0	0	0	1	100
357	Oil, Chemical, and Atomic Workers	7	7	100	5	71	1	14	6	86
358	Transportation Union	1	1	100	0	0	0	0	0	0
364	Food and Commercial Workers	33	33	100	8	24	1	3	31	91
367	Hospital and Health Care Workers	1	1	100	1	100	0	0	0	0
414	Life Insurance Agents	2	1	50	1	50	1	50	0	0
454	Mine Workers	3	3	100	2	67	1	33	1	33
461	Plant Guard Workers	1	1	100	0	0	0	0	0	0
480	Longshoremen and Warehousemen	3	3	100	0	0	0	0	2	67
484	Electrical, Radio, and Machine Workers	4	4	100	1	25	1	25	2	50
500	Independent Union, Single Firm	14	14	100	11	79	6	43	9	64
516	Telecommunications Workers	5	5	100	4	80	2	40	1	20
520	Football Players	1	0	0	1	100	0	0	0	0
527	Pulp and Paper Workers	2	2	100	1	50	0	0	2	100
530	Writers Guild	1	1	100	0	0	0	0	1	100
531	Teamsters	25	25	100	4	16	3	13	15	63
533	Teamsters and Textile Processors	1	1	100	1	100	0	0	1	100

¹ This number represents the percentage of collective bargaining agreements with the individual unions listed in column 2 that included the specific training provision appropriate to this column.

Table 1 (Continued)

Joint Training Programs Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements	Skills Training	Tuition Assistance	Educational Leave	Apprenticeship Training	
		n	% ¹	n	% ¹	n	% ¹
535	Industrial Workers	1	100	0	0	1	100
540	Directors Guild	1	100	0	0	1	100
541	Guards Union	1	100	0	0	1	100
600	AFL-CIO Unions, 2 or More	1	100	0	18	9	82
800	Federal Employee Organizations, 2 or More	1	100	0	0	1	100
903	Nurses Associations, Independent	6	100	6	50	0	0
905	Nurses Associations, Non-ANA Affiliation	3	100	3	67	0	0
Cumulative Totals		798	99	267	13	604	76

¹ This number represents the percentage of collective bargaining agreements with the individual unions listed in column 2 that included the specific training provision appropriate to this column.

Table 2

Joint Training Programs Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

Sic Code	Name	Total Agreements		Skills Training		Tuition Assistance		Educational Leave		Apprenticeship Training	
		n	% ¹	n	% ¹	n	% ¹	n	% ¹	n	% ¹
10	Mining, Metal Mining	4	100	4	100	1	25	1	25	3	75
12	Mining, Coal Mining	2	100	2	100	1	50	0	0	0	0
14	Mining, Nonmetallic Minerals	3	100	3	100	1	33	1	33	2	67
15	Construction, General Building Contractors	89	100	89	100	2	2	0	0	72	81
16	Construction, Heavy Construction	73	100	73	100	1	1	0	0	55	75
17	Construction, Special Trade Contractors	111	99	110	99	14	13	1	1	109	99
19	Manufacturing, Aircraft Parts	12	100	12	100	12	100	4	33	11	92
20	Manufacturing, Food and Kindred Products	20	95	19	95	6	30	3	15	17	89
21	Manufacturing, Tobacco Products	2	100	2	100	0	0	1	50	1	50
22	Manufacturing, Textile Mill Products	3	67	2	67	2	67	0	0	1	33
23	Manufacturing, Apparel and Textile Products	6	83	5	83	0	0	0	0	0	0
24	Manufacturing, Lumber and Wood Products	4	100	4	100	1	25	0	0	4	100
25	Manufacturing, Furniture and Fixtures	5	100	5	100	0	0	0	0	4	80
26	Manufacturing, Paper and Allied Products	26	100	26	100	6	23	0	0	24	92
27	Manufacturing, Printing and Publishing	9	100	9	100	6	67	0	0	8	89
28	Manufacturing, Chemicals and Allied Products	17	100	17	100	10	59	4	24	15	88
29	Manufacturing, Petroleum and Coal Products	8	100	8	100	2	25	0	0	7	88
30	Manufacturing, Rubber and Plastics Products	8	100	8	100	2	25	2	25	5	71
31	Manufacturing, Leather and Leather Products	3	33	1	33	2	67	0	0	0	0
32	Manufacturing, Stone, Clay, and Glass Products	14	100	14	100	4	29	2	17	12	86
33	Manufacturing, Primary Metal Industries	44	95	42	95	16	36	9	21	40	91
34	Manufacturing, Fabricated Metal Products	6	100	6	100	4	67	2	33	5	83
35	Manufacturing, Electrical Equipment	25	96	24	96	14	56	6	26	20	80
36	Manufacturing, Electronic and Electric Equipment	28	100	28	100	13	46	6	22	22	79
37	Manufacturing, Transportation Equipment	74	100	74	100	39	53	27	38	63	85

¹ This number represents the percentage of collective bargaining agreements in the standard industrial classifications listed in column 2 that included the specific training provision appropriate to this column.

Table 2

Joint Training Programs Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

Sic Code	Name	Total Agreements	Skills Training	Tuition Assistance	Educational Leave	Apprenticeship Training
		n	n % ¹	n % ¹	n % ¹	n % ¹
38	Manufacturing, Instruments and Related Products	3	3 100	2 67	2 67	3 100
39	Manufacturing, Miscellaneous Manufacturing Industries	2	2 100	0 0	0 0	1 50
41	Transportation and Public Utilities, Local Transit	1	1 100	0 0	0 0	1 100
42	Transportation and Public Utilities, Trucking Transport	7	7 100	0 0	0 0	4 57
44	Transportation and Public Utilities, Water Transport	5	5 100	0 0	0 0	2 40
45	Transportation and Public Utilities, Air Transport	1	1 100	0 0	0 0	0 0
48	Transportation and Public Utilities, Communications	45	45 100	40 89	7 16	8 18
49	Transportation and Public Utilities, Electric and Gas	48	48 100	14 30	3 6	42 88
50	Wholesale Trade, Durable Goods	2	2 100	1 50	1 50	2 100
54	Retail Trade, Groceries	27	27 100	2 7	0 0	27 100
55	Retail Trade, Automotive Dealers and Service Stations	3	3 100	2 67	0 0	3 100
58	Retail Establishments, Eating Establishments	2	2 100	0 0	0 0	1 50
63	Finance, Insurance, and Real Estate, Insurance Carriers	6	6 100	6 100	1 17	0 0
65	Finance, Insurance, and Real Estate, Real Estate	2	2 100	2 100	0 0	0 0
67	Finance, Insurance, and Real Estate, Investment Offices	1	1 100	0 0	0 0	1 100
70	Services, Hotels and Lodging Places	5	5 100	2 40	0 0	2 40
73	Services, Business Services	4	4 100	3 75	1 25	0 0
76	Services, Miscellaneous Repair Services	1	1 100	0 0	0 0	1 100
78	Services, Motion Pictures	3	1 33	1 33	0 0	2 67
79	Services, Amusement and Recreation Services	2	1 50	1 50	0 0	0 0
80	Services, Health Services	28	28 100	27 96	17 61	0 0
82	Educational Services	4	4 100	4 100	1 25	2 50
	Cumulative Totals	798	787 99	267 34	102 13	604 76

¹ This number represents the percentage of collective bargaining agreements in the standard industrial classifications listed in column 2 that included the specific training provision appropriate to this column.

standard industrial classification distribution of joint union-management training programs included in this study.

Readers should note that, in this study, percentage figures are often found in parentheses following a numerical figure. If the numerical figure refers to a specific grouping or category, e.g. a union or a standard industrial classification, the percentage figure represents only a percentage within the specific grouping or category. If the numerical figure, however, refers to the entire study population, the percentage figure represents a percentage of all 798 collective bargaining agreements included in the study.

Analysis of Research Question One

Research Question 1. What joint union-management training programs are most commonly found in collective bargaining agreements?

This section provides information regarding the frequency distribution of skills training, tuition assistance, educational leave, and apprenticeship provisions in the collective bargaining agreements included in this study.

Skills training provisions were extant in 787 (99%) of the 798 agreements included in the study. These agreements represent 76 (96%) of the 79 different unions in this study's population. Apprenticeship provisions were included in 604 (76%) agreements. Apprenticeship provisions were

most commonly encountered in agreements with manufacturing or construction companies and were found in agreements with 61 (88%) different unions.

Tuition assistance clauses were found in 267 (34%) of the 798 agreements included in this study. These provisions were widely spread across the union spectrum and were discovered in agreements with 53 (67%) of the 79 different unions represented in this study's population. Educational leave was the least frequently detected provision with only 102 (13%) of all agreements including this clause. Agreements with this provision were also widely diffused among unions, however, and were found in agreements with 29 (37%) different unions.

Table 1 provides the frequency distribution of skills training, apprenticeship, tuition assistance, and educational leave provisions and is arranged by union affiliation. Skills training provisions were found in nearly all (99%) of the collective bargaining agreements included in the study. The Leather Goods, Plastics, and Novelty Workers Union (UC 141), the Novelty and Production Workers Union (UC 221), and the National Football League Players Association (UC 520) were the only unions that included at least one targeted provision but did not include a skills training provision.

Apprenticeship programs were most frequently found in collective bargaining agreements with unions commonly associated with the construction trades. As shown in Table 1, apprenticeship provisions were found in 34 (100%)¹ agreements with the Union of Operating Engineers (UC 129), 29 (100%) agreements with the Plumbers and Pipefitters Union (UC 170), 64 (98%) agreements with the Brotherhood of Carpenters and Joiners(UC 119), 51 (88%) agreements with the United Steelworkers (UC 335), and 66 (78%) agreements with the International Brotherhood of Electrical Workers (UC 127).

Apprenticeship provisions were also frequently found in agreements with unions associated with the manufacturing trades. The United Auto Workers (UC 302) had 40 (83%)¹ agreements with apprenticeship provisions while the International Association of Machinists (UC 218) also had 40 (98%) agreements with these provisions.

Tuition assistance clauses or provisions were more widely spread across the union spectrum. This clause or provision was found in 23 (88%)² agreements with the Communications Workers of America (UC 346), 14

¹ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

² All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included tuition assistance provisions. They do not represent a percentage of all agreements studied.

(82%) agreements with the Service Employees International Union (UC 118), and 34 (71%) agreements with the United Auto Workers (UC 302). Unions associated with the manufacturing sector also emphasized tuition assistance programs with 34 (40%) agreements with the International Brotherhood of Electrical Workers (UC 127) and 25 (43%) agreements with the United Steelworkers (UC 335) including this provision. Independent, single company unions (UC 500) also stressed tuition assistance benefits with 11 (79%) agreements including this provision.

Educational leave provisions or clauses were the least frequently identified benefit and were extant in only 102 agreements included in this study. This clause was found in 25 (56%)³ agreements with the United Auto Workers (UC 302) and 16 (28%) agreements with the United Steel Workers (UC 335). This provision was not concentrated in any specific union or sector.

Table 2 also provides the frequency distribution of skills training, apprenticeship, tuition assistance, and educational leave provisions in the collective bargaining agreements included in this study. This table is arranged by two-digit standard industrial classification. This study's

³ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included educational leave provisions. They do not represent a percentage of all agreements studied.

population included companies classified within 47 (65%) of the 72 standard industrial classifications appropriate for private sector companies.

Skills training provisions were found in 787 (99%) agreements representing all (100%) standard industrial classifications. These provisions were so prevalent that their distribution mirrors the standard industrial classification distribution of the agreements included in the study.

Apprenticeship provisions were found in 604 (76%) agreements. These provisions were extant in 38 (81%) of the 47 standard industrial classifications included in this study's population.

Apprenticeship training provisions were most frequently found in standard industrial classifications associated with the construction industry. The Construction, Special Trade Contractors (SIC 17) classification had the most agreements including apprenticeship provisions with 109 (99%)⁴ agreements. The Construction, General Contractors (SIC 15) classification had this provision in 72 (81%) agreements while the Construction, Heavy Construction (SIC 16) classification had this provision in 55 (75%) agreements.

⁴ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

Apprenticeship provisions were also found in 63 (85%)⁵ agreements in the Manufacturing, Transportation Equipment (SIC 37) classification, 42 (88%) agreements in the Transportation and Public Utilities, Electric and Gas (SIC 49) classification, and 40 (91%) agreements in the Manufacturing, Primary Metal Industries (SIC 33) classification.

Tuition assistance provisions were discovered in 267 (34%) of the total agreements studied. Tuition assistance provisions were more widely distributed across standard industrial classifications and were represented in 36 (76%) of the 47 standard industrial classifications covered by this study. These clauses were found in 40 (89%)⁶ agreements with companies in the Transportation and Public Utilities, Communications (SIC 48) classification, 39 (53%) agreements with companies in the Manufacturing, Transportation Equipment (SIC 37) classification, and 27 (96%) agreements with companies in the Services, Health Services (SIC 80) classification.

Educational leave provisions were the least frequently detected provision and were found in only 102 (13%) agreements. These provisions were widely spread among standard industrial classifications, however, with

⁵ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

⁶ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included tuition assistance provisions. They do not represent a percentage of all agreements studied.

these provisions found in 22 (47%) of the classifications covered by this study.

Educational leave clauses were found in 27 (38%)⁷ agreements with companies in the Manufacturing, Transportation Equipment (SIC 37) classification, 17 (61%) agreements with companies in the Services, Health Services (SIC 80) classification, and 9 (21%) agreements with companies in the Manufacturing, Primary Metal Industries (SIC 33) classification.

Analysis of Research Question Two

Research Question 2. What are the characteristics of common joint union-management training programs?

This section provides more detailed information regarding the skills training, tuition assistance, educational leave, and apprenticeship provisions found in the collective bargaining agreements included in this study's population. This section also includes information regarding program funding, program management, participant selection, participant eligibility, and assistance to displaced workers.

⁷ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included educational leave provisions. They do not represent a percentage of all agreements studied.

Skill Training Provisions

Skills training provisions cover technical training as well as personal development courses. Table 3 provides information regarding the skill training provisions covered by this study and indicates that three elements are included in nearly all agreements regardless of the union or industrial sector that was party to the agreement. Joint funding to provide training for specific jobs within the company were included in 787 (99%) of the total agreements in this study. General job skills training activities that did not train a person for a specific job within the company were provided in 743 (93%)⁸ agreements that included skills training clauses or provisions. Job skills training courses that helped workers adapt to new technologies being introduced into the company were covered in 761 (96%) agreements. Table 3 also shows that programs that allowed workers to obtain their high school diploma or general equivalency diploma were less common and were found in only 121 (16%) agreements. Personal development courses were covered even less frequently with only 65 (8%) agreements providing funding for this type course.

⁸ All percentage figures in the remainder of this paragraph represent a percentage of the 787 agreements that included skills training provisions.

Table 3

Skills Training Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Specific Job Skills Training		General Job Skills Training		New Technology Training		Personal Development Courses		Diploma Completion Programs	
			n	% ¹	n	% ¹	n	% ¹	n	% ¹	n	% ¹
100	AFL-CIO Union, Single Company	6	6	100	5	83	6	100	0	0	0	0
101	Independent Union, Single Company	3	3	100	3	100	3	100	0	0	0	0
107	Industrial Workers	5	4	80	5	100	5	100	0	0	1	20
108	Bakery, Confectionery, and Tobacco Workers	5	5	100	5	100	5	100	0	0	1	20
112	Boilermakers	11	11	100	11	100	10	91	0	0	1	9
115	Bricklayers	11	10	91	11	100	11	100	0	0	4	36
116	Iron Workers	14	14	100	14	100	14	100	0	0	0	0
118	Service Employees	17	17	100	8	47	15	88	0	0	0	0
119	Carpenters	65	65	100	65	100	64	98	1	2	2	3
120	Cement, Lime, Gypsum, and Allied Workers	1	1	100	1	100	1	100	0	0	0	0
121	Chemical Workers	9	9	100	9	100	9	100	0	0	1	11
127	Electrical Workers	85	85	100	82	96	81	95	10	12	18	22
128	Elevator Constructors	1	1	100	1	100	1	100	0	0	0	0
129	Operating Engineers	34	34	100	34	100	33	97	0	0	0	0
132	Firemen and Oilers	1	1	100	0	0	1	100	0	0	0	0
134	Ladies Garment Workers	1	1	100	1	100	1	100	0	0	0	0
135	Glass Bottle Blowers	10	10	100	10	100	10	100	0	0	0	0
137	Flint Glass Workers	1	1	100	1	100	1	100	0	0	1	100
141	Leather Goods, Plastics and Novelty Workers	1	0	0	1	100	1	100	0	0	0	0
142	Hatters	1	1	100	1	100	1	100	0	0	0	0
143	Laborers	57	57	100	57	100	56	98	1	2	23	40

¹ This number represents the percentage of collective bargaining agreements with the unions listed in column 2 that included the specific skills training provision appropriate to this column.

Table 3 (Continued)

Skills Training Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Specific Job Skills Training		General Job Skills Training		New Technology Training		Personal Development Courses		Diploma Completion Programs	
			n	% ¹	n	% ¹	n	% ¹	n	% ¹	n	% ¹
145	Hotel and Restaurant Employees	4	4	100	3	75	1	25	0	0	0	0
153	Tile, Marble, and Terrazzo Finishers	2	2	100	2	100	2	100	0	0	0	0
161	Molders	1	1	100	1	100	1	100	0	0	0	0
163	Office and Professional Employees	4	4	100	1	25	4	100	0	0	0	0
164	Painters	14	14	100	14	100	14	100	0	0	0	0
168	Plasterers and Cement Masons	1	1	100	1	100	1	100	0	0	2	0
170	Plumbers	30	30	100	30	100	30	100	0	0	0	0
184	Retail Clerks	1	1	100	1	100	1	100	0	0	1	0
187	Sheet Metal Workers	7	7	100	7	100	7	100	0	0	0	0
192	Theatrical Stage Employees	1	1	100	0	0	0	0	0	0	0	0
197	Transit Union	1	1	100	1	100	1	100	0	0	0	0
199	Teachers	1	1	100	0	0	1	100	0	0	0	0
208	Grain Millers	2	2	100	2	100	2	100	0	0	0	0
218	Machinists	41	41	100	40	98	41	100	1	2	6	15
220	Aluminum, Brick, and Glass Workers	3	3	100	3	100	3	100	0	0	0	0
221	Novelty and Production Workers	1	1	100	1	100	1	100	0	0	0	0
231	Paperworkers	20	20	100	17	85	19	95	0	0	0	0
239	Longshoremen	2	2	100	2	100	2	100	0	0	0	0
244	Graphic Communications	9	9	100	8	89	8	89	0	0	0	0
302	Auto Workers	48	47	98	45	94	46	96	6	13	13	28

¹ This number represents the percentage of collective bargaining agreements with the unions listed in column 2 that included the specific skills training provision appropriate to this column.

Table 3 (Continued)

Skills Training Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Specific Job Skills Training		General Job Skills Training		New Technology Training		Personal Development Courses		Diploma Completion Programs	
			n	% ¹	n	% ¹	n	% ¹	n	% ¹	n	% ¹
305	Clothing and Textile Workers	7	7	100	7	100	7	100	1	14	0	0
319	Marine Engineers	3	3	100	3	100	2	67	0	0	0	0
321	Maritime Union	1	1	100	1	100	0	0	0	0	0	0
323	Newspaper Guild	4	4	100	3	75	4	100	0	0	0	0
332	Retail, Wholesale, and Dept. Store Union	4	4	100	4	100	4	100	1	25	0	0
333	Rubber Workers	10	10	100	10	100	9	90	1	10	1	10
335	Steel Workers	58	56	97	58	100	57	98	14	24	16	28
341	Transport Workers	2	2	100	1	50	2	100	0	0	1	50
342	Utility Workers	4	4	100	3	75	4	100	0	0	0	0
343	Woodworkers	2	2	100	2	100	2	100	0	0	0	0
346	Communications Workers	26	26	100	26	100	26	100	21	81	21	81
347	Electronic and Electrical Workers	11	11	100	11	100	11	100	2	18	2	18
352	Broadcast Employees	2	2	100	1	100	2	100	0	0	0	0
354	Mechanics Educational Society	1	1	100	1	100	1	100	0	0	0	0
357	Oil, Chemical, and Atomic Workers	7	7	100	7	100	7	100	0	0	0	0
358	Transportation Union	1	1	100	1	100	1	100	0	0	0	0
364	Food and Commercial Workers	33	33	100	32	97	31	94	0	0	0	0
367	Hospital and Health Care Workers	1	1	100	0	0	1	100	0	0	0	0
414	Life Insurance Agents	2	1	50	1	50	1	50	0	0	0	0
454	Mine Workers	3	3	100	3	100	3	100	0	0	2	67

¹ This number represents the percentage of collective bargaining agreements with the unions listed in column 2 that included the specific skills training provision appropriate to this column.

Table 3 (Continued)

Skills Training Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Specific Job Skills Training	General Job Skills Training	New Technology Training	Personal Development Courses	Diploma Completion Programs
		n	% ¹	n	% ¹	n	% ¹
461	Plant Guard Workers	1	100	0	0	1	100
480	Longshoremen and Warehousemen	3	100	3	100	1	33
484	Electrical, Radio, and Machine Workers	4	100	4	100	4	100
500	Independent Union, Single Firm	14	100	12	86	13	93
516	Telecommunications Workers	5	100	5	100	5	100
520	Football Players	1	0	0	0	0	0
527	Pulp and Paper Workers	2	100	2	100	2	100
530	Writers Guild	1	0	0	0	0	0
531	Teamsters	25	100	20	80	20	80
533	Teamsters and Textile Processors	1	100	1	100	1	100
535	Industrial Workers	1	100	1	100	1	100
540	Directors Guild	1	100	1	100	1	100
541	Guards Union	1	100	1	100	1	100
600	AFL-CIO Unions, Two or More	11	100	11	100	11	100
800	Federal Employee Organizations, Two or More	1	100	1	100	1	100
903	Nurses Associations, Independents	6	100	1	17	6	100
905	Nurses Associations, Non-ANA Affiliation	3	100	0	0	3	100
Cumulative Totals		798	787	743	93	761	96
						65	8
						121	16

¹ This number represents the percentage of collective bargaining agreements with the unions listed in column 2 that included the specific skills training provision appropriate to this column.

Table 3 also includes information regarding training courses that allowed an employee to finish their high school diploma or obtain a general equivalency diploma. This provision was found in 23 (40%)⁹ agreements with the International Laborers Union (UC 143), 21 (81%) agreements with the Communications Workers of America (UC 346), 18 (22%) agreements with the International Brotherhood of Electrical Workers (UC 127), and 16 (28%) agreements with the United Steel Workers (UC 335).

Table 3 shows that not many agreements, regardless of standard industrial classification or union affiliation, provided funding for personal development courses. These type courses are generally self-selected by the employee and are focused on specific employee interests rather than company needs. The Communications Workers of America (UC 346) was the only union to include this provision in over half of their agreements with 21 (81%)¹⁰ agreements including this provision. These courses were also covered by 14 (24%) agreements with the United Steel Workers (UC 335).

Table 4 provides information regarding the standard industrial classifications in which certain skill training provisions were most likely

⁹ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that provided funding for employees to finish their high school diploma or obtain a general equivalency diploma. They do not represent a percentage of all agreements studied.

¹⁰ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that provided funding for personal development courses. They do not represent a percentage of all agreements studied.

Table 4

Skills Training Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Name	Total Agreements Examined	Specific Job Skills Training	General Job Skills Training	New Technology Training	Personal Development Courses	Diploma Completion Programs
		n	% ¹	n	% ²	n	% ²
10	Mining, Metal Mining	4	100	4	100	1	25
12	Mining, Coal Mining	2	100	2	100	1	50
14	Mining, Nonmetallic Minerals	3	100	3	100	0	0
15	Construction, General Building Contractors	89	100	89	100	2	2
16	Construction, Heavy Construction	73	100	72	99	0	0
17	Construction, Special Trade Contractors	111	99	111	100	0	0
19	Manufacturing, Aircraft Parts	12	100	12	100	1	8
20	Manufacturing, Food and Kindred Products	20	95	19	95	0	0
21	Manufacturing, Tobacco Products	2	100	2	100	0	0
22	Manufacturing, Textile Mill Products	3	67	2	67	0	0
23	Manufacturing, Apparel and Textile Products	6	83	5	83	1	17
24	Manufacturing, Lumber and Wood Products	4	100	4	100	0	0
25	Manufacturing, Furniture and Fixtures	5	100	4	80	0	0
26	Manufacturing, Paper and Allied Products	26	100	22	85	0	0
27	Manufacturing, Printing and Publishing	9	100	9	100	0	0
28	Manufacturing, Chemicals and Allied Products	17	100	17	100	0	0
29	Manufacturing, Petroleum and Coal Products	8	100	8	100	0	0
30	Manufacturing, Rubber and Plastics Products	8	100	8	100	0	0
31	Manufacturing, Leather and Leather Products	3	33	3	100	0	0
32	Manufacturing, Stone, Clay, and Glass Products	14	100	14	100	0	0
33	Manufacturing, Primary Metal Industries	44	95	44	100	13	30
34	Manufacturing, Fabricated Metal Products	6	100	5	83	6	100
35	Manufacturing, Electrical Equipment	25	96	24	96	3	12
36	Manufacturing, Electronic and Electric Equipment	28	100	28	100	2	7
37	Manufacturing, Transportation Equipment	74	100	71	96	5	7

¹ This number represents the percentage of collective bargaining agreements with the standard industrial classifications listed in column 2 that included the specific skills training provision appropriate to this column.

Table 4 (Continued)

Skills Training Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Name	Total Agreements Examined	Specific Job Skills Training		General Job Skills Training		New Technology Training		Personal Development Courses		Diploma Completion Programs	
			n	% ¹	n	% ²	n	% ²	n	% ²	n	% ²
38	Manufacturing, Instruments and Related Products	3	3	100	3	100	3	100	0	0	0	0
39	Manufacturing, Miscellaneous Manufacturing Industries	2	2	100	2	100	1	50	0	0	0	0
41	Transportation and Public Utilities, Local Transit	1	1	100	1	100	1	100	0	0	0	0
42	Transportation and Public Utilities, Trucking Transport	7	7	100	6	86	2	29	0	0	0	0
44	Transportation and Public Utilities, Water Transport	5	5	100	5	100	2	40	0	0	0	0
45	Transportation and Public Utilities, Air Transport	1	1	100	1	100	1	100	0	0	0	0
48	Transportation and Public Utilities, Communications	45	45	100	43	96	44	98	33	73	33	73
49	Transportation and Public Utilities, Electric and Gas	48	48	100	45	94	46	95	0	0	2	4
50	Wholesale Trade, Durable Goods	2	2	100	2	100	2	100	0	0	0	0
54	Retail Trade, Groceries	27	27	100	27	100	25	93	0	0	0	0
55	Retail Trade, Automotive Dealers and Service Stations	3	3	100	3	100	3	100	0	0	0	0
58	Retail Trade, Eating Establishments	2	2	100	1	50	1	50	0	0	0	0
63	Finance, Insurance, and Real Estate, Insurance Carriers	6	6	100	3	50	5	87	0	0	0	0
65	Finance, Insurance, and Real Estate, Real Estate	2	2	100	2	100	0	0	0	0	0	0
67	Finance, Insurance, and Real Estate, Investment Offices	1	1	100	1	100	1	100	1	100	0	0
70	Services, Hotels and Lodging Places	5	5	100	5	100	2	40	0	0	0	0
73	Services, Business Services	4	4	100	3	75	4	100	0	0	0	0
76	Services, Miscellaneous Repair Services	1	1	100	1	100	0	0	0	0	0	0
78	Services, Motion Pictures	3	1	33	1	100	1	100	0	0	0	0
79	Services, Amusement and Recreation Services	2	1	50	1	100	1	100	0	0	0	0
80	Services, Health Services	28	28	100	6	21	28	100	1	100	1	100
82	Educational Services	4	4	100	0	0	4	100	0	0	0	0
Cumulative Totals		798	787	99	743	93	761	96	65	8	121	16

¹ This number represents the percentage of collective bargaining agreements with the standard industrial classifications listed in column 2 that included the specific skills training provision appropriate to this column.

found. As previously stated, specific job skills training, general job skills training, and new technology training were commonly included in nearly all agreements regardless of the union or industrial sector that were party to the agreement.

Table 4 also provides information regarding the standard industrial classifications that were more likely to include personal development courses, high school diploma completion courses, or general equivalency diploma programs in their collective bargaining agreements. Funding for personal development courses was found in 33 (73%)¹¹ of all agreements with companies in the Transportation and Public Utilities, Communications (SIC 48) classification and 13 (30%) agreements with companies in the Manufacturing, Primary Metal Industries (SIC 33) classification.

High school diploma completion or general equivalency diploma completion programs were allowed in 33 (73%)¹² agreements with companies in the Transportation and Public Utilities, Communications (SIC 48) classification, 19 (17%) companies in the Construction, Special Trade Contractors (SIC 17) classification, 16 (22%) companies in the Manufacturing,

¹¹ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included funding for personal development courses. They do not represent a percentage of all agreements studied.

¹² All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included funding for high school diploma completion or general equivalency diploma completion programs. They do not represent a percentage of all agreements studied.

Transportation Equipment classification (SIC 37), and 16 (15%) companies in the Construction, General Building Contractors (SIC 15) category.

Tuition Assistance or Reimbursement Programs

Tuition assistance or reimbursement programs support employees, during study at higher education institutions by providing funds for tuition, books, and supplies. These type provisions were included in 267 (34%) of the agreements covered by this study.

Table 5 shows that tuition assistance or reimbursement provisions were included in 34 (71%)¹³ agreements with the United Auto Workers (UC 302), 34 (40%) agreements with the International Brotherhood of Electrical Workers (UC 127), 25 (43%) agreements with the United Steel Workers (UC 335), 23 (88%) agreements with the Communications Workers of America (UC 346), and 20 (49%) agreements with the International Association of Machinists (UC 218). The agreements with these five unions represent 51% of all agreements that contained tuition assistance or reimbursement provisions.

Table 6 reveals that tuition assistance or reimbursement provisions may be found in agreements with companies in nearly every standard

¹³ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included tuition assistance provisions. They do not represent a percentage of all agreements studied.

Table 5

Tuition Assistance Provisions Extant In the 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined		Total Agreements With Tuition Assistance		Job Related Instruction Required		All (100%) Tuition & Fees Paid or Reimbursed		Displaced Workers Eligible	
		n	% ¹	n	% ²	n	% ²	n	% ²	n	% ²
100	AFL-CIO Union, Single Company	6	0	0	0	0	0	0	0	0	0
101	Independent Union, Single Company	3	33	1	100	1	100	1	100	0	0
107	Industrial Workers	5	40	2	100	2	100	2	100	0	0
108	Bakery, Confectionery, and Tobacco Workers	5	40	2	100	2	100	1	50	0	0
112	Boilermakers	11	9	1	100	1	100	1	100	0	0
115	Bricklayers	11	0	0	0	0	0	0	0	0	0
116	Iron Workers	14	29	4	100	4	100	3	75	0	0
118	Service Employees	17	82	12	86	12	86	9	64	0	0
119	Carpenters	65	3	2	100	2	100	2	100	0	0
120	Cement, Lime, Gypsum, and Allied Workers	1	0	0	0	0	0	0	0	0	0
127	Electrical Workers	85	40	34	82	28	82	29	85	13	38
128	Elevator Constructors	1	0	0	0	0	0	0	0	0	0
129	Operating Engineers	34	0	0	0	0	0	0	0	0	0
134	Ladies Garment Workers	1	0	0	0	0	0	0	0	0	0
135	Glass Bottle Blowers	10	20	2	100	2	100	2	100	0	0
137	Flint Glass Workers	1	100	1	100	0	0	1	100	0	0
141	Leather Goods, Plastics and Novelty Workers	1	100	1	100	0	0	0	0	0	0
142	Hatters	1	0	0	0	0	0	0	0	0	0
143	Laborers	57	0	0	0	0	0	0	0	0	0
145	Hotel and Restaurant Employees	4	25	1	100	0	0	0	0	0	0
153	Tile, Marble, and Terrazzo Finishers	2	0	0	0	0	0	0	0	0	0
161	Molders	1	0	0	0	0	0	0	0	0	0

¹ This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance.

² This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance and included the specific provision stipulated for this column.

Table 5 (Continued)

Tuition Assistance Provisions Extant In the 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Total Agreements With Tuition Assistance	Job Related Instruction Required	All (100%) Tuition & Fees Paid or Reimbursed	Displaced Workers Eligible
		n	% ¹	n % ²	n % ²	n % ²
163	Office and Professional Employees	4	75	3 100	2 67	0 0
164	Painters	14	7	1 100	1 100	0 0
168	Plasterers and Cement Masons	1	0	0 0	0 0	0 0
170	Plumbers	30	3	1 100	1 100	0 0
184	Retail Clerks	1	0	0 0	0 0	0 0
186	Seafarers	1	0	0 0	0 0	0 0
187	Sheet Metal Workers	7	71	3 60	3 100	0 0
192	Theatrical Stage Employees	1	100	1 100	0 0	0 0
197	Transit Union	1	0	0 0	0 0	0 0
199	Teachers	1	100	1 100	1 100	0 0
208	Grain Millers	2	50	1 100	1 100	0 0
218	Machinists	41	49	19 95	16 80	6 32
220	Aluminum, Brick, and Glass Workers	3	33	1 100	1 100	0 0
221	Novelty and Production Workers	1	100	0 0	0 0	0 0
231	Paperworkers	20	20	4 100	3 75	0 0
239	Longshoremen	2	50	1 100	1 100	0 0
244	Graphic Communications	9	56	5 100	5 100	0 0
302	Auto Workers	48	71	28 82	31 91	13 41
305	Clothing and Textile Workers	8	38	3 100	2 67	1 33
319	Marine Engineers	3	33	1 100	1 100	0 0

¹ This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance.

² This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance and included the specific provision stipulated for this column.

Table 5 (Continued)

Tuition Assistance Provisions Extant In the 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Total Agreements With Tuition Assistance	Job Related Instruction Required	All (100%) Tuition & Fees Paid or Reimbursed	Displaced Workers Eligible
		n	n % ¹	n % ²	n % ²	n % ²
321	Maritime Union	1	0	0	0	0
323	Newspaper Guild	4	2	2	2	1
332	Retail, Wholesale, and Dept. Store Union	4	2	2	1	1
333	Rubber Workers	10	3	3	3	1
335	Steel Workers	58	25	20	17	3
341	Transport Workers	2	1	1	1	0
342	Utility Workers	4	0	0	0	0
343	Woodworkers	2	1	1	1	0
346	Communications Workers	26	23	8	23	18
347	Electronic and Electrical Workers	11	7	6	6	3
352	Broadcast Employees	2	1	0	1	1
354	Mechanics Educational Society	1	0	0	0	0
357	Oil, Chemical, and Atomic Workers	7	5	5	5	0
358	Transportation Union	1	0	0	0	0
364	Food and Commercial Workers	34	8	7	4	0
367	Hospital and Health Care Workers	1	1	1	1	0
414	Life Insurance Agents	2	1	1	0	0
454	Mine Workers	3	2	0	0	2
461	Plant Guard Workers	1	0	0	0	0
480	Longshoremen and Warehousemen	3	0	0	0	0
484	Electrical, Radio, and Machine Workers	4	1	1	1	0

¹ This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance.
² This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance and included the specific provision stipulated for this column.

Table 5 (Continued)

Tuition Assistance Provisions Extant In the 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Total Agreements With Tuition Assistance	Job Related Instruction Required	All (100%) Tuition & Fees Paid or Reimbursed	Displaced Workers Eligible
		n	n % ¹	n % ²	n % ²	n % ²
500	Independent Union, Single Firm	14	11 79	10 91	7 64	2 18
516	Telecommunications Workers	5	4 80	2 50	4 100	4 100
520	Football Players	1	1 100	1 100	1 100	0 0
527	Pulp and Paper Workers	2	1 50	1 100	1 100	1 100
530	Writers Guild	1	0 0	0 0	0 0	0 0
531	Teamsters	25	4 16	4 100	4 100	0 0
533	Teamsters and Textile Processors	1	1 100	1 100	1 100	0 0
535	Industrial Workers	1	0 0	0 0	0 0	0 0
540	Directors Guild	1	0 0	0 0	0 0	0 0
541	Guards Union	1	0 0	0 0	0 0	0 0
600	AFL-CIO Unions, Two or More	11	0 0	0 0	0 0	0 0
800	Federal Employee Organizations, Two or More	1	0 0	0 0	0 0	0 0
903	Nurses Associations, Independents	6	6 100	6 100	4 67	0 0
905	Nurses Associations, Non-ANA Affiliation	3	3 100	3 100	2 67	0 0
Cumulative Totals		798	267 34	218 82	215 81	70 27

¹ This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance.

² This number represents the percentage of all collective bargaining agreements with the union listed in column 2 that provided tuition assistance and included the specific provision stipulated for this column.

Table 6

Tuition Assistance Provisions Extant In the 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Name	Total Agreements Examined	Total Agreements With Tuition Assistance	Job Related Instruction Required	All (100%) Tuition & Fees Paid or Reimbursed	Displaced Workers Eligible	
		n	% ¹	n	% ²	n	% ²
10	Mining, Metal Mining	4	100	0	0	1	100
12	Mining, Coal Mining	2	50	0	0	1	100
14	Mining, Nonmetallic Minerals	3	33	0	0	1	100
15	Construction, General Building Contractors	89	2	1	50	1	50
16	Construction, Heavy Construction	73	1	1	100	1	100
17	Construction, Special Trade Contractors	111	14	13	93	11	79
19	Manufacturing, Aircraft Parts	12	100	12	100	12	100
20	Manufacturing, Food and Kindred Products	20	6	6	100	3	50
21	Manufacturing, Tobacco Products	2	0	0	0	0	0
22	Manufacturing, Textile Mill Products	3	2	2	100	1	50
23	Manufacturing, Apparel and Textile Products	6	0	0	0	0	0
24	Manufacturing, Lumber and Wood Products	4	1	1	100	1	100
25	Manufacturing, Furniture and Fixtures	5	0	0	0	0	0
26	Manufacturing, Paper and Allied Products	26	6	6	100	4	67
27	Manufacturing, Printing and Publishing	9	6	6	100	6	100
28	Manufacturing, Chemicals and Allied Products	17	10	10	100	9	90
29	Manufacturing, Petroleum and Coal Products	8	2	2	100	2	100
30	Manufacturing, Rubber and Plastics Products	8	2	2	100	2	100
31	Manufacturing, Leather and Leather Products	3	2	2	0	0	0
32	Manufacturing, Stone, Clay, and Glass Products	14	4	3	75	4	100
33	Manufacturing, Primary Metal Industries	44	16	11	69	9	56
34	Manufacturing, Fabricated Metal Products	6	4	2	50	2	50
35	Manufacturing, Electrical Equipment	25	14	13	93	12	86
36	Manufacturing, Electronic and Electric Equipment	28	13	10	77	10	77
37	Manufacturing, Transportation Equipment	74	39	35	90	35	90

¹ This number represents the percentage of all collective bargaining agreements with the standard industrial classification listed in column 2 that provided tuition assistance.

² This number represents the percentage of all collective bargaining agreements with the standard industrial classification listed in column 2 that provided tuition assistance and included the specific provision stipulated for this column.

Table 6 (Continued)

Tuition Assistance Provisions Extant In the 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Name	Total Agreements Examined		Total Agreements With Tuition Assistance		Job Related Instruction Required		All (100%) Tuition & Fees Paid or Reimbursed		Displaced Workers Eligible	
		n	%	n	%	n	%	n	%	n	%
38	Manufacturing, Instruments and Related Products	3	2	67	2	100	2	100	0	0	
39	Manufacturing, Miscellaneous Manufacturing Industries	2	0	0	0	0	0	0	0	0	
41	Transportation and Public Utilities, Local Transit	1	0	0	0	0	0	0	0	0	
42	Transportation and Public Utilities, Trucking	7	0	0	0	0	0	0	0	0	
44	Transportation and Public Utilities, Water Transport	5	2	40	2	100	2	100	0	0	
45	Transportation and Public Utilities, Air Transport	1	0	0	0	0	0	0	0	0	
48	Transportation and Public Utilities, Communications	45	40	89	19	48	40	100	33	83	
49	Transportation and Public Utilities, Electric and Gas	48	14	30	13	93	10	71	0	0	
50	Wholesale Trade, Durable Goods	2	1	50	1	100	1	100	0	0	
54	Retail Trade, Groceries	27	2	7	1	50	1	50	0	0	
55	Retail Trade, Automotive Dealers and Service Stations	3	2	67	2	100	2	100	0	0	
58	Retail Establishments, Eating Establishments	2	0	0	0	0	0	0	0	0	
63	Finance, Insurance, and Real Estate, Insurance Carriers	6	6	100	6	100	2	33	0	0	
65	Finance, Insurance, and Real Estate, Real Estate	2	2	100	1	50	1	50	0	0	
67	Finance, Insurance, and Real Estate, Investment Offices	1	0	0	0	0	0	0	0	0	
70	Services, Hotels and Lodging Places	5	2	40	0	0	0	0	0	0	
73	Services, Business Services	4	3	75	2	67	1	33	1	33	
76	Services, Miscellaneous Repair Services	1	0	0	0	0	0	0	0	0	
78	Services, Motion Pictures	3	1	33	1	100	0	0	0	0	
79	Services, Amusement and Recreation Services	2	1	50	1	100	1	100	0	0	
80	Services, Health Services	28	27	96	27	100	22	81	1	4	
82	Educational Services	4	4	100	4	100	3	75	0	0	
Cumulative Totals		798	268	34	219	82	216	81	70	27	

¹ This number represents the percentage of all collective bargaining agreements with the standard industrial classification listed in column 2 that provided tuition assistance.

² This number represents the percentage of all collective bargaining agreements with the standard industrial classification listed in column 2 that provided tuition assistance and included the specific provision stipulated for this column.

industrial classification. This provision was found in agreements with 40 (89%)¹⁴ companies in the Transportation and Public Utilities, Communications (SIC 48) classification, 39 (53%) companies in the Manufacturing, Transportation Equipment (SIC 37) classification, and 27 (96%) companies in the Services, Health Services (SIC 80) classification. Agreements with companies in these standard industrial classifications represent 40% of all agreements that contained tuition assistance or reimbursement provisions.

Employers often require that a course of study paid for through a tuition assistance or reimbursement provision be job related. Table 5 reveals that this requirement was included in 219 (82%)¹⁵ agreements in this study including 28 (82%)¹⁶ agreements with the International Brotherhood of Electrical Workers (UC 127), 28 (82%) agreements with United Auto Workers (UC 302), and 20 (80%) agreements with the United Steel Workers (UC 335).

Table 6 also shows that the requirement that any course of study paid for through a tuition assistance or reimbursement provision be job related is

¹⁴ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included tuition assistance provisions. They do not represent a percentage of all agreements studied.

¹⁵ This percentage figure represents the percentage of the 267 agreements with tuition assistance or reimbursement provisions that required courses taken be job related. It does not represent a percentage of all agreements studied.

¹⁶ This percentage figure and others in the remainder of this paragraph represent only the percentage of agreements with a specifically referenced union that allowed tuition assistance or reimbursement and required that the courses taken be job related. They do not represent a percentage of all agreements studied..

commonplace. In the Services, Health Services (SIC 80) classification, 27 (100%)¹⁷ agreements included this stipulation while in the Manufacturing, Transportation Equipment (SIC 37) classification, 35 (90%) agreements also included the same requirement. Only 19 (48%) agreements in the Transportation and Public Utilities, Communications (SIC 48) category had this provision, however, due to objections raised during the collective bargaining process by the Communications Workers of America (Ingram, 1995).

Tables 5 and 6 also show that 216 (81%)¹⁸ agreements included in this study stipulated that the worker would be paid or reimbursed 100% of their tuition, books, and fees costs. An additional 19 (7%) agreements stipulated that workers would receive between 50% and 99%. Another 32 (12%) agreements stated that workers would be eligible for tuition payment or reimbursement but did not include clear language regarding the reimbursement amount or process.

Many workers would like their company to prepay the tuition and fees for any class or course they might take. This was not the case among the

¹⁷ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that allowed tuition assistance or reimbursement and required that the courses taken be job related. They do not represent a percentage of all agreements studied.

¹⁸ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that allowed tuition assistance or reimbursement and stipulated a percentage of the tuition that the company would pay. They do not represent a percentage of all agreements studied.

agreements included in the study, however, where 176 (66%)¹⁹ agreements stipulated that tuition would be paid or reimbursed only after successful completion of a class or course. An additional 40 (15%) agreements did not contain clear language regarding tuition prepayment. Tuition prepayment was stipulated in only 61 (22%) agreements. Among the larger unions, only the Communications Workers of America (UC 346) were able to get this provision into a majority (91%) of its agreements.

Some unions negotiated the provision of tuition assistance for members who were displaced during the duration of the negotiated contract. Tables 5 and 6 also indicate that this provision was included in 70 (27%) of the agreements that allowed tuition assistance. Among those agreements were 18 (78%)²⁰ agreements with the Communications Workers of America (UC 346), 13 (38%) agreements with the International Brotherhood of Electrical Workers (UC 127), and 13 (41%) agreements with the United Auto Workers (UC 302).

¹⁹ All percentage figures in this paragraph represent only the percentage of agreements that allowed tuition assistance or reimbursement and stipulated when tuition would be paid. They do not represent a percentage of all agreements studied.

²⁰ This percentage figure and all other percentage figure in the remainder of this paragraph represent the only the percentage of agreements that allowed tuition assistance or reimbursement and stipulated that tuition assistance would be available to displaced workers. They do not represent a percentage of all agreements studied.

Educational Leave

Educational leave programs allow union members to take approved extended absences for educational purposes. Some educational leave programs incorporate educational loan programs that provide low interest loans for union members. Educational leave provisions were included in 102 (13%) of the agreements included in this study as indicated in Table 7 and were widely distributed among unions.

This provision was included in 25 (56%)²¹ agreements with the United Auto Workers (UC 302) 16 (28%) agreements with the United Steel Workers (UC 335), 7 (41%) agreements with the Service Employees International Union (UC 118), and 7 (8%) agreements with the International Brotherhood of Electrical Workers (UC 127).

Table 8 shows that educational leave provisions were most commonly found in two standard industrial classifications. The Manufacturing, Transportation Equipment classification (SIC 37) included 27 (38%)²² agreements that contained educational leave provisions. The Services, Health

²¹ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included educational leave provisions. They do not represent a percentage of all agreements studied.

²² All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included educational leave provisions. They do not represent a percentage of all agreements studied.

Table 7

Educational Leave Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined		Total Agreements With Educational Leave		Approved or Accredited School Required		Employee Paid During Educational Leave	
		n	% ¹	n	% ¹	n	% ²	n	% ²
100	AFL-CIO Union, Single Company	6	17	1	100	1	100	1	100
101	Independent Union, Single Company	3	33	1	100	1	100	1	100
107	Industrial Workers	5	20	1	100	1	100	1	100
108	Bakery, Confectionery, and Tobacco Workers	5	20	1	100	1	100	1	100
112	Boilermakers	11	0	0	0	0	0	0	0
115	Bricklayers	11	0	0	0	0	0	0	0
116	Iron Workers	14	0	0	0	0	0	0	0
118	Service Employees	17	41	7	100	7	100	6	86
119	Carpenters	65	0	0	0	0	0	0	0
120	Cement, Lime, Gypsum, and Allied Workers	1	0	0	0	0	0	0	0
127	Electrical Workers	85	7	8	100	7	100	3	43
128	Elevator Constructors	1	100	1	100	1	100	1	100
129	Operating Engineers	34	0	0	0	0	0	0	0
134	Ladies Garment Workers	1	0	0	0	0	0	0	0
135	Glass Bottle Blowers	10	0	0	0	0	0	0	0
137	Flint Glass Workers	1	100	1	100	1	100	0	0
141	Leather Goods, Plastics and Novelty Workers	1	0	0	0	0	0	0	0
142	Hatters	1	0	0	0	0	0	0	0
143	Laborers	57	0	0	0	0	0	0	0
145	Hotel and Restaurant Employees	4	0	0	0	0	0	0	0
153	Tile, Marble, and Terrazzo Finishers	2	0	0	0	0	0	0	0
161	Molders	1	0	0	0	0	0	0	0

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave.

² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave and included the specific provision stipulated for this column.

Table 7 (Continued)

Educational Leave Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined		Total Agreements With Educational Leave		Approved or Accredited School Required		Employee Paid During Educational Leave	
		n	% ¹	n	% ¹	n	% ²	n	% ²
163	Office and Professional Employees	4	1	1	25	1	100	1	100
164	Painters	14	0	0	0	0	0	0	0
168	Plasterers and Cement Masons	1	0	0	0	0	0	0	0
170	Plumbers	30	0	0	0	0	0	0	0
184	Retail Clerks	1	0	0	0	0	0	0	0
186	Seafarers	1	0	0	0	0	0	0	0
187	Sheet Metal Workers	7	0	0	0	0	0	0	0
192	Theatrical Stage Employees	1	0	0	0	0	0	0	0
197	Transit Union	1	0	0	0	0	0	0	0
199	Teachers	1	0	0	0	0	0	0	0
208	Grain Millers	2	0	0	0	0	0	0	0
218	Machinists	41	4	4	10	4	100	4	100
220	Aluminum, Brick, and Glass Workers	3	0	0	0	0	0	0	0
221	Novelty and Production Workers	1	0	0	0	0	0	0	0
231	Paperworkers	20	0	0	0	0	0	0	0
239	Longshoremen	2	0	0	0	0	0	0	0
244	Graphic Communications	9	0	0	0	0	0	0	0
302	Auto Workers	48	25	25	56	25	100	18	72
305	Clothing and Textile Workers	8	1	1	13	1	100	1	100
319	Marine Engineers	3	0	0	0	0	0	0	0

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave.

² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave and included the specific provision stipulated for this column.

Table 7 (Continued)

Educational Leave Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined		Total Agreements With Educational Leave		Approved or Accredited School Required		Employee Paid During Educational Leave	
		n	% ¹	n	% ¹	n	% ²	n	% ²
321	Maritime Union	1	0	0	0	0	0	0	0
323	Newspaper Guild	4	1	25	100	1	100	1	100
332	Retail, Wholesale, and Dept. Store Union	4	1	25	100	1	100	1	100
333	Rubber Workers	10	2	20	100	2	100	2	100
335	Steel Workers	58	16	28	81	13	81	12	75
341	Transport Workers	2	0	0	0	0	0	0	0
342	Utility Workers	4	0	0	0	0	0	0	0
343	Woodworkers	2	0	0	0	0	0	0	0
346	Communications Workers	26	4	16	100	4	100	3	75
347	Electronic and Electrical Workers	11	4	40	100	4	100	2	50
352	Broadcast Employees	2	0	0	0	0	0	0	0
354	Mechanics Educational Society	1	0	0	0	0	0	0	0
357	Oil, Chemical, and Atomic Workers	7	1	14	100	1	100	0	0
358	Transportation Union	1	0	0	0	0	0	0	0
364	Food and Commercial Workers	34	1	3	100	1	100	1	100
367	Hospital and Health Care Workers	1	0	0	0	0	0	0	0
414	Life Insurance Agents	2	1	50	0	0	0	1	50
454	Mine Workers	3	1	33	100	1	100	0	0
461	Plant Guard Workers	1	0	0	0	0	0	0	0
480	Longshoremen and Warehousemen	3	0	0	0	0	0	0	0
484	Electrical, Radio, and Machine Workers	4	1	25	100	1	100	1	100

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave.
² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave and included the specific provision stipulated for this column.

Table 7 (Continued)

Educational Leave Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined		Total Agreements With Educational Leave		Approved or Accredited School Required		Employee Paid During Educational Leave	
		n	% ¹	n	% ¹	n	% ²	n	% ²
500	Independent Union, Single Firm	14	43	6	100	6	100	6	100
516	Telecommunications Workers	5	40	2	100	2	100	0	0
520	Football Players	1	0	0	0	0	0	0	0
527	Pulp and Paper Workers	2	0	0	0	0	0	0	0
530	Writers Guild	1	0	0	0	0	0	0	0
531	Teamsters	25	13	3	100	3	100	2	67
533	Teamsters and Textile Processors	1	0	0	0	0	0	0	0
535	Industrial Workers	1	0	0	0	0	0	0	0
540	Directors Guild	1	0	0	0	0	0	0	0
541	Guards Union	1	0	0	0	0	0	0	0
600	AFL-CIO Unions, Two or More	11	18	2	100	2	100	2	100
800	Federal Employee Organizations, Two or More	1	0	0	0	0	0	0	0
903	Nurses Associations, Independents	6	50	3	100	3	100	2	67
905	Nurses Associations, Non-ANA Affiliation	3	67	2	100	2	100	2	100
Cumulative Totals		798	102	13	96	98	73	75	73

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave.
² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that provided educational leave and included the specific provision stipulated for this column.

Table 8

Educational Leave Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Name	Total Agreements Examined	n	% ¹	Total Agreements With Educational Leave	n	% ²	Approved or Accredited School Required	n	% ²	Employee Paid During Educational Leave
10	Mining, Metal Mining	4	1	25	1	100	0	0	0	0	0
12	Mining, Coal Mining	2	0	0	0	0	0	0	0	0	0
14	Mining, Nonmetallic Minerals	3	1	33	1	100	0	0	0	0	0
15	Construction, General Building Contractors	88	0	0	0	0	0	0	0	0	0
16	Construction, Heavy Construction	73	0	0	0	0	0	0	0	0	0
17	Construction, Special Trade Contractors	108	1	1	1	100	1	100	1	100	0
19	Manufacturing, Aircraft Parts	12	4	33	4	100	3	75	3	75	0
20	Manufacturing, Food and Kindred Products	20	3	15	3	100	2	67	2	67	0
21	Manufacturing, Tobacco Products	2	1	50	1	100	1	100	1	100	0
22	Manufacturing, Textile Mill Products	3	0	0	0	0	0	0	0	0	0
23	Manufacturing, Apparel and Textile Products	6	1	17	0	0	1	100	1	100	0
24	Manufacturing, Lumber and Wood Products	4	0	0	0	0	0	0	0	0	0
25	Manufacturing, Furniture and Fixtures	5	0	0	0	0	0	0	0	0	0
26	Manufacturing, Paper and Allied Products	26	0	0	0	0	0	0	0	0	0
27	Manufacturing, Printing and Publishing	9	0	0	0	0	0	0	0	0	0
28	Manufacturing, Chemicals and Allied Products	17	4	24	4	100	2	50	2	50	0
29	Manufacturing, Petroleum and Coal Products	8	0	0	0	0	0	0	0	0	0
30	Manufacturing, Rubber and Plastics Products ¹	8	2	25	2	100	2	100	2	100	0
31	Manufacturing, Leather and Leather Products	3	0	0	0	0	0	0	0	0	0
32	Manufacturing, Stone, Clay, and Glass Products	12	2	17	2	100	0	0	0	0	0
33	Manufacturing, Primary Metal Industries	42	9	21	6	67	8	89	8	89	0
34	Manufacturing, Fabricated Metal Products	6	2	33	2	100	1	50	1	50	0
35	Manufacturing, Electrical Equipment	25	6	26	6	100	5	83	5	83	0
36	Manufacturing, Electronic and Electric Equipment	27	6	22	6	100	4	67	4	67	0
37	Manufacturing, Transportation Equipment	74	27	38	27	100	21	78	21	78	0

¹ This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that provided educational leave.

² This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that provided educational leave and included the specific provision stipulated for this column.

Table 8 (Continued)

Educational Leave Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Code Name	Total Agreements Examined	Total Agreements With Educational Leave	Approved or Accredited School Required	Employee Paid During Educational Leave
		n	n	n	n
		%	%	%	%
38	Manufacturing, Instruments and Related Products	3	2	2	2
39	Manufacturing, Miscellaneous Manufacturing Industries	2	0	0	0
41	Transportation and Public Utilities, Local Transit	1	0	0	0
42	Transportation and Public Utilities, Trucking Transport	7	0	0	0
44	Transportation and Public Utilities, Water Transport	5	0	0	0
45	Transportation and Public Utilities, Air Transport	1	0	0	0
48	Transportation and Public Utilities, Communications	45	7	7	7
49	Transportation and Public Utilities, Electric and Gas	47	3	3	3
50	Wholesale Trade, Durable Goods	2	1	1	1
54	Retail Trade, Groceries	27	0	0	0
55	Retail Trade, Automotive Dealers and Service Stations	3	0	0	0
58	Retail Establishments, Eating Establishments	2	0	0	0
63	Finance, Insurance, and Real Estate, Insurance Carriers	6	1	1	1
65	Finance, Insurance, and Real Estate, Real Estate	2	0	0	0
67	Finance, Insurance, and Real Estate, Investment Offices	1	0	0	0
70	Services, Hotels and Lodging Places	5	0	0	0
73	Services, Business Services	4	1	1	1
76	Services, Miscellaneous Repair Services	1	0	0	0
78	Services, Motion Pictures	3	0	0	0
79	Services, Amusement and Recreation Services	2	0	0	0
80	Services, Health Services	28	17	17	13
82	Educational Services	4	1	1	1
	Cumulative Totals	798	103	99	75
			13	96	73

¹ This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that provided educational leave.

² This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that provided educational leave and included the specific provision stipulated for this column.

Services (SIC 80) classification included 17 (61%) agreements with this provision.

Most agreements that allowed educational leave required that the worker attend an approved or accredited school. Table 7 reveals that 99 (96%)²³ agreements that were included in this study, and that included educational leave provisions, required that the school be either an accredited institution or be approved by the company's training officer. All (100%) agreements with the United Auto Workers, the Service Employees International Union, the International Brotherhood of Electrical Workers, the International Brotherhood of Electrical and Electronics Workers, and the Communications Workers of America required that the worker attend an approved or accredited school.

A limited number of agreements required that an employee be paid during an educational leave. Table 7 shows that only 75 (73%)²⁴ agreements that were included in this study, and that included educational leave provisions, stipulated that employees would be eligible for pay during these periods. This provision was found in 18 (72%)²⁵ agreements involving the

²³ This percentage figure represents the percentage of agreements included in the study that allowed educational leave and required that the school attended by the worker be either an accredited or approved institution.

²⁴ This percentage figure represents the percentage of agreements included in the study that allowed educational leave and stipulated that employees would be paid during the leave period.

²⁵ This percentage figure and all other percentage figures in the remainder of this paragraph represent only the percentage of agreements with a specifically referenced union that included educational leave provisions and

United Auto Workers (UC 302), 12 (75%) agreements involving the United Steel Workers (UC 335), and 3 (43%) agreements involving the International Brotherhood of Electrical Workers (UC 127).

Table 8 also shows that workers were most likely to be eligible for pay during an educational leave period if they work at companies in four standard industrial classifications. This provision was found in 21 (78%)²⁶ agreements in the Manufacturing, Transportation Equipment (SIC 37) classification, 13 (76%) agreements in the Services, Health Services (SIC 80) classification, 8 (89%) agreements in the Manufacturing, Primary Metal Industries (SIC 33) classification, and 7 (100%) agreements in the Transportation and Public Utilities, Communications (SIC 48) classification.

Apprenticeship Programs

Apprenticeship programs are on-the-job training programs that provide skills training for younger workers and are a mandatory requirement for upward movement into certain skilled trades.

Apprenticeship training commonly lasts three to four years and includes not less than 2000 hours of on-the-job experience in all aspects of the craft. Most

required that workers be paid during their educational leave. They do not represent a percentage of all agreements studied.

²⁶ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included educational leave provisions and required that workers be paid during their educational leave. They do not represent a percentage of all agreements studied.

programs also include not less than 144 hours per year of related technical instruction at a vocational school or community college.

Apprenticeship provisions were found in 604 (76%) agreements included in this study. Apprenticeship provisions were the most common training provision in agreements with unions associated with the construction trades. Table 9 shows that among those agreements with apprenticeship provisions were 65 (77%)²⁷ agreements with the International Brotherhood of Electrical Workers (UC 127), 64 (98%) agreements with the Brotherhood of Carpenters and Joiners (UC 119), 34 (100%) agreements with the Union of Operating Engineers (UC 129), 30 (100%) agreements with the Plumbers and Pipefitters Federation (UC 170), 28 (49%) agreements with the Laborers International Union (UC 143), and 14 (100%) agreements with the Brotherhood of Iron Workers (UC 116).

Apprenticeship provisions were also commonplace in agreements with unions representing workers employed at manufacturing companies. Such apprenticeship provisions were included in 51 (88%)²⁸ agreements with the United Steel Workers (UC 335), 40 (98%) agreements with the

²⁷ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

²⁸ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

Table 9

Apprenticeship Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined		Total Agreements With Apprenticeship Programs		Limited To Skilled Crafts Or Trades		Separate Apprenticeship Council		Apprenticeship Funding Level	
		n	% ¹	n	% ²	n	% ²	n	% ³	n	M
100	AFL-CIO Union, Single Company	6	100	6	100	6	100	6	100	1	.30
101	Independent Union, Single Company	3	100	3	100	3	100	3	100	0	unk
107	Industrial Workers	5	80	4	80	4	100	4	100	0	unk
108	Bakery, Confectionery, and Tobacco Workers	5	80	4	80	4	100	4	100	0	unk
112	Boilermakers	11	82	9	82	9	100	9	100	8	.17
115	Bricklayers	11	100	11	100	11	100	11	100	11	.17
116	Iron Workers	14	100	14	100	14	100	14	100	13	.15
118	Service Employees	17	18	3	18	3	100	3	100	0	unk
119	Carpenters	65	98	64	98	63	98	63	98	55	.13
120	Cement, Lime, Gypsum, and Allied Workers	1	100	1	100	1	100	1	100	1	.10
127	Electrical Workers	85	78	66	78	65	100	65	100	14	.18
128	Elevator Constructors	1	100	1	100	1	100	1	100	1	.09
129	Operating Engineers	34	100	34	100	34	100	34	100	29	.23
134	Ladies Garment Workers	1	0	0	0	0	0	0	0	0	unk
135	Glass Bottle Blowers	10	100	10	100	10	100	10	100	0	unk
137	Flint Glass Workers	1	0	0	0	0	0	0	0	0	unk
141	Leather Goods, Plastics and Novelty Workers	1	0	0	0	0	0	0	0	0	unk
142	Hatters	1	0	0	0	0	0	0	0	0	unk
143	Laborers	57	49	28	49	28	100	28	100	22	.22
145	Hotel and Restaurant Employees	4	50	2	50	2	100	2	100	0	unk
153	Tile, Marble, and Terrazzo Finishers	2	50	1	50	1	100	1	100	0	unk
161	Molders	1	100	1	100	1	100	1	100	0	unk

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships.

² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships and included the specific provision stipulated for this column.

Table 9 (Continued)

Apprenticeship Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined		Total Agreements With Apprenticeship Programs		Limited To Skilled Crafts Or Trades		Separate Apprenticeship Council		Apprenticeship Funding Level	
		n	% ¹	n	% ²	n	% ²	n	% ²	n	M
163	Office and Professional Employees	4	0	0	0	0	0	0	0	0	unk
164	Painters	14	100	14	100	14	100	14	100	11	.12
168	Plasterers and Cement Masons	1	100	1	100	1	100	1	100	1	.17
170	Plumbers	30	100	30	100	30	100	30	100	22	.25
184	Retail Clerks	1	100	1	100	1	100	1	100	0	unk
186	Seafarers	1	100	1	100	1	100	1	100	0	unk
187	Sheet Metal Workers	7	100	7	100	7	100	7	100	7	.15
192	Theatrical Stage Employees	1	0	0	0	0	0	0	0	0	unk
197	Transit Union	1	100	1	100	1	100	1	100	0	unk
199	Teachers	1	0	0	0	0	0	0	0	0	unk
208	Grain Millers	2	100	2	100	2	100	2	100	0	unk
218	Machinists	41	98	40	98	40	100	40	100	0	unk
220	Aluminum, Brick, and Glass Workers	3	67	2	67	2	100	2	100	2	.08
221	Novelty and Production Workers	1	0	0	0	0	0	0	0	0	unk
231	Paperworkers	20	90	18	90	18	100	18	100	13	.08
239	Longshoremen	2	50	1	50	1	100	1	100	0	unk
244	Graphic Communications	9	89	8	89	8	100	8	100	2	.16
302	Auto Workers	48	83	40	83	40	100	40	100	0	unk
305	Clothing and Textile Workers	8	25	2	25	2	100	2	100	0	unk
319	Marine Engineers	3	100	3	100	3	100	2	67	2	.38

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships.

² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships and included the specific provision stipulated for this column.

Table 9 (Continued)

Apprenticeship Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Total Agreements With Apprenticeship Programs	Limited To Skilled Crafts Or Trades	Separate Apprenticeship Council	Apprenticeship Funding Level
		n	% ¹	n	% ²	n
321	Maritime Union	1	0	0	0	unk
323	Newspaper Guild	4	3	3	75	unk
332	Retail, Wholesale, and Dept. Store Union	4	2	2	50	unk
333	Rubber Workers	10	5	5	50	unk
335	Steel Workers	58	51	51	88	unk
341	Transport Workers	2	0	0	0	unk
342	Utility Workers	4	4	4	100	unk
343	Woodworkers	2	2	2	100	unk
346	Communications Workers	26	6	6	23	unk
347	Electronic and Electrical Workers	11	8	8	73	unk
352	Broadcast Employees	2	0	0	0	unk
354	Mechanics Educational Society	1	1	1	100	unk
357	Oil, Chemical, and Atomic Workers	7	6	6	86	unk
358	Transportation Union	1	0	0	0	unk
364	Food and Commercial Workers	34	31	31	91	unk
367	Hospital and Health Care Workers	1	0	0	0	unk
414	Life Insurance Agents	2	0	0	0	unk
454	Mine Workers	3	1	1	33	unk
461	Plant Guard Workers	1	0	0	0	unk
480	Longshoremen and Warehousemen	3	2	2	67	unk
484	Electrical, Radio, and Machine Workers	4	2	2	50	unk

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships.

² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships and included the specific provision stipulated for this column.

Table 9 (Continued)

Apprenticeship Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By Union Affiliation

Union Code	Union Name	Total Agreements Examined	Total Agreements With Apprenticeship Programs	Limited To Skilled Crafts Or Trades	Separate Apprenticeship Council	Apprenticeship Funding Level
		n	n	n	n	n
			% ¹	% ²	% ²	M
500	Independent Union, Single Firm	14	9	9	9	0
516	Telecommunications Workers	5	1	1	1	0
520	Football Players	1	0	0	0	0
527	Pulp and Paper Workers	2	2	2	2	0
530	Writers Guild	1	1	1	1	0
531	Teamsters	25	15	15	15	5
533	Teamsters and Textile Processors	1	1	1	1	0
535	Industrial Workers	1	1	1	1	0
540	Directors Guild	1	1	1	1	0
541	Guards Union	1	1	1	1	0
600	AFL-CIO Unions, Two or More	11	9	9	9	5
800	Federal Employee Organizations, Two or More	1	1	1	1	0
903	Nurses Associations, Independents	6	0	0	0	0
905	Nurses Associations, Non-ANA Affiliation	3	0	0	0	0
Cumulative Totals		798	604	603	603	212
			76	100	100	.17

¹ This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships.

² This number represents the percentage of all collective bargaining agreements with the unions listed in column 2 that included apprenticeships and included the specific provision stipulated for this column.

International Association of Machinists (UC 218), and 40 (83%) agreements with the United Auto Workers (UC 302).

Table 10 also shows that apprenticeship provisions were common in agreements with companies in the construction industry. Apprenticeship provisions were found in 109 (99%)²⁹ agreements with companies in the Construction, Special Trades Contractors (SIC 17) classification, 72 (81%) agreements with companies in the Construction, General Building Contractors (SIC 15) classification, and 55 (75%) agreements with companies in the Construction, Heavy Construction (SIC 16) classification.

Apprenticeship provisions were also prevalent in agreements with companies in other standard industrial classifications as shown in Table 10. Companies in the Manufacturing, Transportation Equipment (SIC 37) classification had 63 (85%)³⁰ agreements containing this provision, while 42 (88%) agreements existed with companies in the Transportation and Public Utilities, Electric and Gas (SIC 49) classification. Companies in the Manufacturing, Primary Metal Industries (SIC 33) classification were party to 40 (91%) agreements with apprenticeship provisions, while companies in the

²⁹ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

³⁰ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

Table 10

Apprenticeship Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Name	Total Agreements Examined	Total Agreements With Apprenticeship Programs	Limited To Skilled Crafts Or Trades	Separate Apprenticeship Council	Apprenticeship Funding Level
		n	n	n	n	M
			% ¹	% ²	% ³	
10	Mining, Metal Mining	4	3	3	3	0 unk
12	Mining, Coal Mining	2	0	0	0	0 unk
14	Mining, Nonmetallic Minerals	3	2	2	2	1 .17
15	Construction, General Building Contractors	89	72	72	72	64 .19
16	Construction, Heavy Construction	73	55	55	55	47 .18
17	Construction, Special Trade Contractors	110	109	108	108	99 .18
19	Manufacturing, Aircraft Parts	12	11	11	11	100 0 unk
20	Manufacturing, Food and Kindred Products	19	17	17	17	100 0 unk
21	Manufacturing, Tobacco Products	2	1	1	1	100 0 unk
22	Manufacturing, Textile Mill Products	3	1	1	1	100 0 unk
23	Manufacturing, Apparel and Textile Products	6	0	0	0	0 unk
24	Manufacturing, Lumber and Wood Products	4	4	4	4	100 .12
25	Manufacturing, Furniture and Fixtures	5	4	4	4	100 .08
26	Manufacturing, Paper and Allied Products	26	24	24	24	100 .08
27	Manufacturing, Printing and Publishing	9	8	8	8	100 .16
28	Manufacturing, Chemicals and Allied Products	17	15	15	15	100 0 unk
29	Manufacturing, Petroleum and Coal Products	8	7	7	7	100 0 unk
30	Manufacturing, Rubber and Plastics Products	8	5	5	5	100 0 unk
31	Manufacturing, Leather and Leather Products	3	0	0	0	0 unk
32	Manufacturing, Stone, Clay, and Glass Products	14	12	12	12	100 0 unk
33	Manufacturing, Primary Metal Industries	44	40	40	40	100 0 unk
34	Manufacturing, Fabricated Metal Products	6	5	5	5	100 0 unk
35	Manufacturing, Electrical Equipment	25	20	20	20	100 0 unk
36	Manufacturing, Electronic and Electric Equipment	28	22	22	22	100 0 unk
37	Manufacturing, Transportation Equipment	74	63	63	63	100 1 .03

¹ This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that included apprenticeships.

² This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that included apprenticeships and included the specific provision stipulated for this column.

Table 10 (Continued)

Apprenticeship Provisions Extant In The 798 Collective Bargaining Agreements Included In The Study, By SIC Code

SIC Code	SIC Name	Total Agreements Examined	Total Agreements With Apprenticeship Programs	Limited To Skilled Crafts Or Trades	Separate Apprenticeship Council	Apprenticeship Funding Level		
		n	n	n	n	n		
		% ¹	% ¹	% ²	% ²	M		
		n	n	% ²	% ²	M		
38	Manufacturing, Instruments and Related Products	3	3	100	3	100	0	unk
39	Manufacturing, Miscellaneous Manufacturing Industries	2	1	50	1	100	0	unk
41	Transportation and Public Utilities, Local Transit	1	1	100	1	100	0	unk
42	Transportation and Public Utilities, Trucking Transport	7	4	57	4	100	0	unk
44	Transportation and Public Utilities, Water Transport	5	2	40	2	100	1	.60
45	Transportation and Public Utilities, Air Transport	1	0	0	0	0	0	unk
48	Transportation and Public Utilities, Communications	45	8	18	8	100	0	unk
49	Transportation and Public Utilities, Electric and Gas	48	42	88	42	100	0	unk
50	Wholesale Trade, Durable Goods	2	2	100	2	100	1	.13
54	Retail Trade, Groceries	27	27	100	27	100	0	unk
55	Retail Trade, Automotive Dealers and Service Stations	3	3	100	3	100	0	unk
58	Retail Establishments, Eating Establishments	2	1	50	1	100	0	unk
63	Finance, Insurance, and Real Estate, Insurance Carriers	6	0	0	0	0	0	unk
65	Finance, Insurance, and Real Estate, Real Estate	2	0	0	0	0	0	unk
67	Finance, Insurance, and Real Estate, Investment Offices	1	1	100	1	100	0	unk
70	Services, Hotels and Lodging Places	5	2	40	2	100	0	unk
73	Services, Business Services	4	0	0	0	0	0	unk
76	Services, Miscellaneous Repair Services	1	1	100	1	100	0	unk
78	Services, Motion Pictures	3	2	67	2	100	0	unk
79	Services, Amusement and Recreation Services	3	0	0	0	0	0	unk
80	Services, Health Services	27	0	0	0	0	0	unk
82	Educational Services	4	2	50	2	100	0	unk
Cumulative Totals		798	602	76	602	100	212	.17

¹ This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that included apprenticeships.

² This number represents the percentage of all collective bargaining agreements with the standard industrial classifications listed in column 2 that included apprenticeships and included the specific provision stipulated for this column.

Retail Trade, Groceries (SIC 54) classification had 27 (100%) agreements with apprenticeship provisions.

Table 9 and Table 10 reveal that all (100%) agreements that had apprenticeship provisions shared two other programmatic elements. First, every agreement limited participation in their apprenticeship programs to workers employed in skilled crafts or trades. Workers employed as clerical, administrative, or managerial personnel are not eligible to participate. Second, every agreement managed its apprenticeship program through an apprenticeship council. These apprenticeship councils were charged with selecting participants, managing program content, and certifying program completion. These councils usually had some management representation and, often, had equal management and union representation. They were not, however, intended to be joint training program committees and were not considered as such in this study.

Apprenticeship programs were funded through company contributions with the company contribution usually expressed as a fixed amount for every employee hour worked. Many collective bargaining agreements included in this study did not include a detailed description of their affiliated apprenticeship programs and referred the researcher to a separate apprenticeship agreement. Table 9 shows that 212 (27%) agreements

included in the study reported their apprenticeship funding levels. Table 9 also shows the mean contribution by union. The Plumbers and Pipefitters Federation (UC 170) reported a \$0.25 per hour mean apprenticeship contribution while the International Union of Operating Engineers (UC 129) reported \$0.23 per hour. The mean apprenticeship contribution for all companies reporting this information was \$0.17 per employee hour.

The standard industrial classifications associated with the construction industry (SIC 15, 16, 17) were the only classifications to have more than 5 agreements that reported their apprenticeship funding level. As shown in Table 10, these classifications reported a mean apprenticeship funding level of \$0.18 per employee hour.

Program Management

Joint training program committees were stipulated in 483 (61%) collective bargaining agreements included in this study. This large number signifies an important evolution in joint training programs since the first model joint training programs were usually set up as nonprofit corporations.

Agreements stipulating a joint training committee were widely distributed among the 79 union affiliations included in this study. Joint

training committees were stipulated in 41 (73%)³¹ agreements with the United Steel Workers (UC 335), 31 (65%) agreements with the United Auto Workers (UC 302), 23 (88%) agreements with the Communications Workers of America (UC 346), 22 (54%) agreements with the International Association of Machinists (UC 218), and 16 (94%) agreements with the Service Employees International Union (UC 118).

Agreements stipulating a joint training committee were also widely distributed among standard industrial classifications. This stipulation was found in 43 (58%)³² agreements in the Manufacturing, Transportation Equipment (SIC 37) classification, 38 (84%) agreements in the Transportation and Public Utilities, Communications (SIC 48) classification, 35 (80%) agreements in the Manufacturing, Primary Metal Industries (SIC 33) classification, and 25 (89%) agreements in the Services, Health Services (SIC 80) classification.

Labor and management representation on the joint training committee was consistent regardless of the union or company that was party to the collective bargaining agreement. Equal labor and management

³¹ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that stipulated establishment of a joint training committee. They do not represent a percentage of all agreements studied.

³² All percentage figures in this paragraph represent a percentage of agreements within a specifically referenced standard industrial classification that stipulated establishment of a joint training committee. They do not represent a percentage of all agreements studied.

representation was stipulated in 461 (96%)³³ of all agreements. Labor was given more representatives on the committee in 11 (2%) agreements while management was given more representatives in six (1%) agreements. The committee's composition was not stipulated in four (1%) agreements.

The frequency of joint training program committee meetings was covered in some agreements. Monthly meetings were required by 244 (51%)³⁴ agreements while quarterly meetings were mandated in 11 (3%) agreements and semi-annual meetings in 12 (3%) agreements. Clauses regarding meeting frequency were not included in 206 (43%) agreements.

Participant Selection

How participants in joint training programs are selected raises some critical issues. Allowing self-selection usually ensures that the person is sufficiently motivated and is, arguably, more likely to benefit from the training activity. Employee seniority is often taken into consideration during the selection process and generally reduces overall training effectiveness since it limits participation by less experienced workers who may have a greater need for training. Limiting participation through rigidly defined

³³ All percentage figures in this paragraph represent a percentage of the agreements that stipulated establishment of a joint training committee and specified labor and management representation on the joint training committees. They do not represent a percentage of all agreements studied.

³⁴ All percentage figures in this paragraph represent a percentage of the agreements that stipulated establishment of a joint training committee and specified the frequency of joint training committees. They do not represent a percentage of all agreements studied.

eligibility requirements can ensure the participant is better suited for the program and may result in a lower dropout rate. Allowing complete management discretion usually ensures the company's needs are met but may reduce the number of employees who participate in training activities.

Table 11 shows that 793 (99%) agreements included in this study established participant eligibility requirements. Self-selection or employee discretion was permitted in 633 (80%) agreements, while employee seniority was stated to be a consideration in 532 (67%) agreements. Management discretion was permitted in 476 (60%) agreements but was usually limited to participation with union members in the selection process.

Table 11

Participant Selection Process In Joint Training Programs

Selection Method	Total Agreements Indicating Method Is Used	Percentage All Agreements Examined
	n	%
Eligibility Requirements Stated In CBA	793	99
Employee Seniority	532	66
Self Selection or Employee Discretion	633	79
Management Discretion	476	59
Total Agreements Examined (n) = 798		

Participant Eligibility

Table 12 shows that 795 (99.8%) agreements stipulated that employees included in the collective bargaining unit were eligible participants.

Employees who were not bargaining unit members were deemed eligible in only 36 (5%) agreements.

Only 13 (2%) agreements allowed dependents of employees in the bargaining unit to participate in jointly funded training programs, as shown in Table 12. This benefit was found in seven agreements with the Communications Workers of America (UC 346) and six agreements with the United Auto Workers (UC 302). Only two (< 1%) agreements allowed dependents of employees who were not bargaining unit members to participate in jointly funded activities.

Table 12

Employees and Dependents Eligible For Joint Training Programs

Employee or Dependent Category	Total Agreements Indicating Category Eligible	Percentage All Agreements Examined
	n	%
Employees Included In Bargaining Unit	795	99
Employees Not Included In Bargaining Unit	36	4
Dependents of Employees Included In Bargaining Unit	13	1
Dependents Of Employees Not Included In Bargaining Unit	2	<1

Total Agreements Examined (n) = 798

Assistance To Terminated or Outplaced Workers

Many joint training programs, particularly those innovative programs originating in the auto industry, were originally developed to assist displaced workers. Over time, these program benefits were extended to active workers. These programs, as shown in Table 13, offered a wide variety of training and counseling services.

Table 13

Assistance To Displaced Workers By Category

Assistance Category	Total Agreements Indicating Category Is Eligible	Percentage Agreements With Outplaced Worker Provisions
	n	%
Skill Training To Upgrade Specific Job Skills	75	96
Skill Training To Upgrade General Job Skills	70	90
Skill Training To Accommodate New Technologies	72	92
Personal Development Courses	47	60
Basic Literacy Courses	60	77
High School Diploma Completion Courses	60	77
College Credit Courses	65	83
Career Planning or Counseling	64	82

Total Agreements Including Outplacement Provisions (n) = 79

Assistance to workers who were being terminated or outplaced was stipulated in 79 (10%) agreements included in this study. Skill training for specific job skills for displaced or terminated employees was included in 75 (96%)³⁵ agreements while skill training for displaced or terminated employees to accommodate new technologies was allowed in 72 (92%) agreements and basic skills training was provided for in 70 (90%) agreements. The latter is odd since one would expect that most unemployed persons are urgently seeking employment and cannot afford to participate in longer term efforts, e.g. basic skills development.

Career counseling for the displaced or terminated worker was allowed in 64 (82%)³⁶ agreements, while 65 (83%) agreements included provisions that allowed payment of tuition and fees for college credit courses taken by these workers. Personal development courses, e.g. personal financial management courses, were the least likely provision with only 47 (60%) agreements allowing tuition or fee subsidies for personal development courses taken by displaced or terminated workers.

³⁵ This percentage figure and all other percentage figures in the remainder of this paragraph represent only a percentage of the agreements that stipulated assistance to workers who were being terminated or outplaced. They do not represent a percentage of all agreements studied.

³⁶ This percentage figure and all other percentage figures in the remainder of this paragraph represent only a percentage of the agreements that stipulated assistance to workers who were being terminated or outplaced. They do not represent a percentage of all agreements studied.

Program Funding

Contract clauses indicating funds had been earmarked for joint training programs and placed into a separate fund was found in 473 (59%) agreements but did not exist in 325 (41%) agreements. Among agreements that stipulated separate funding for joint programs, 198 (42%)³⁷ indicated a funding formula based on a defined contribution per employee hour worked. A fixed annual contribution per employee was identified as the funding means in another 74 (16%)³⁸ agreements while a fixed annual contribution for all employees was the funding means in 30 (6%)³⁹ agreements. The remaining 171 (36%)⁴⁰ agreements stipulated a separate fund but did not include any language that identified a specific funding formula or amount.

Funding formulas that defined a contribution for each hour worked by any eligible employee were found in 198 (42%) of the 473 agreements and were most evident in agreements involving construction-oriented trade unions. This type formula was found in 52 (\underline{M} = .15 per hour) agreements with the Laborers International Union (UC 143), 31 (\underline{M} = .11 per hour)

³⁷ This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs and based funding on a defined contribution per employee hour worked.

³⁸ This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs and based funding on a fixed annual contribution per employee.

³⁹ This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs and based funding on a fixed annual contribution covering all employees.

⁴⁰ This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs but did not include a specific funding formula or amount.

agreements with the Brotherhood of Carpenters and Joiners (UC 119), 20 (M = .21 per hour) agreements with the International Union of Operating Engineers (UC 129), and 17 (M = .21 per hour) agreements with the Plumbers and Pipefitters Union (UC 170).

Accordingly, these funding clauses are also found most frequently in standard industrial classifications associated with the construction industry. These clauses were found in 64 (M = .15 per hour) agreements with companies in the Construction, Special Trade Contractors (SIC 17) classification, 61 (M = .13 per hour) agreements with companies in the Construction, General Building Contractors (SIC 15) classification, and 50 (M = .18 per hour) agreements with companies in the Construction, Heavy Construction (SIC 16) classification.

Clauses that stipulated a fixed annual contribution per employee were found in 74 (16%) agreements and were widely distributed across union affiliations. These clauses were found in 13 (M = \$1946 per employee) agreements with the United Auto Workers (UC 302), 12 (M = \$2508 per employee) agreements with the International Brotherhood of Electrical Workers (UC 127), and 10 (M = \$1151 per employee) agreements with the Communications Workers of America (UC 346).

Clauses stipulating a fixed annual contribution per employee were found most frequently in transportation-oriented industries. These clauses were found in 22 (\underline{M} = \$2907 per employee) agreements with companies in the Transportation and Public Utilities, Communications (SIC 48) classification and 15 (\underline{M} = \$2013 per employee) agreements with companies in the Manufacturing, Transportation Equipment (SIC 37) classification.

Clauses that specified a fixed annual contribution for all employees to a separate fund were extant in 30 (6%) agreements and were found most frequently in agreements involving larger, established unions. These clauses were found in eight (\underline{M} = \$943,749 all employees) agreements with the Communications Workers of America (UC 346), four (\underline{M} = \$142,426 all employees) agreements with the Service Employees International Union (UC 118), and three (\underline{M} = \$688,666 all employees) agreements with the United Auto Workers (UC 302).

Clauses specifying a fixed annual contribution for all employees to a separate fund were primarily found in two standard industrial classifications. These clauses were found in 12 (\underline{M} = \$171,309 all employees) agreements with companies in the Services, Health Services (SIC 80) classification and 10 (\underline{M} = \$954,999 all employees) agreements with

companies in the Transportation and Public Utilities, Communications (SIC 48) classification.

Analysis of Research Question Three

Research Question 3. What are the state and regional distributions of joint union-management training programs?

Table 14 shows the geographic concentration by state of the joint training programs included in this study. These joint training agreements were concentrated in states that were more densely populated, have more traditional primary industries, or were defense industry oriented. States housing more than 10% of the joint training programs included in this study were Connecticut (20.3%), California (10.5%), and New York (10.4%). Illinois (6.4%), Ohio (6.1%), Pennsylvania (5.4%), Wisconsin (3.8%), and Michigan (3.5%) also had significant joint training programs. Another 15.8% of all joint training programs were multi-state programs.

States that had no (0%) joint training programs were all located in the western United States and included Montana, North Dakota, Nebraska, Utah, Vermont, and Wyoming.

Table 14

Distribution of Collective Bargaining Agreements With Training Provisions
By State

State Code	State Name	Total Agreements Within State	Percentage Of All Agreements Examined
1	Alabama	10	1.3
2	Alaska	1	.1
3	Arizona	4	.5
4	Arkansas	4	.5
5	California	84	10.5
6	Colorado	14	1.8
7	Connecticut	18	20.3
8	Delaware	3	.4
9	Florida	16	2.0
10	Georgia	8	1.0
11	Hawaii	8	1.0
12	Idaho	2	.3
13	Illinois	51	6.4
14	Indiana	25	3.1
15	Iowa	3	.4
16	Kansas	11	1.4
17	Kentucky	8	1.0
18	Louisiana	5	.6
19	Maine	4	.5
20	Maryland	7	.9
21	Massachusetts	18	2.3
22	Michigan	28	3.5
23	Minnesota	22	2.8
24	Mississippi	4	.5
25	Missouri	2	.3
26	Montana	0	0
27	Nebraska	0	0
28	Nevada	2	.2
29	New Hampshire	2	.2
30	New Jersey	15	1.9
31	New Mexico	2	.3
32	New York	83	10.4
33	North Carolina	4	.5
34	North Dakota	0	0
35	Ohio	49	6.1
36	Oklahoma	0	0

Table 14 (continued)

Distribution of Collective Bargaining Agreements With Training Provisions By State

State Code	State Name	Total Agreements Within State	Percentage Of All Agreements Examined
37	Oregon	4	.5
38	Pennsylvania	43	5.4
39	Rhode Island	3	.4
40	South Carolina	1	.1
41	South Dakota	1	.1
42	Tennessee	8	1.0
43	Texas	21	.3
44	Utah	0	0
45	Vermont	0	0
46	Virginia	9	1.1
47	Washington	13	1.6
48	Washington (DC)	6	.8
49	West Virginia	6	.8
50	Wisconsin	30	3.8
51	Wyoming	0	0
52	Multistate	126	15.8
Cumulative Totals		798	100.0

Table 15 shows the regional distribution of joint training programs according to the regional boundaries established by the United States Department of Labor, Bureau of Labor Statistics. This table also shows that joint training programs were concentrated in regions dominated by manufacturing industries or defense-oriented industries.

Table 15

Distribution of Collective Bargaining Agreements With Training Provisions
By Region

Region Code	Regional Headquarters	Total Agreements Within Region	Percentage Of All Agreements Examined
1	Boston, Massachusetts	45	5.6
2	New York, New York	102	12.8
3	Philadelphia, Pennsylvania	76	9.5
4	Atlanta, Georgia	56	7.0
5	Chicago, Illinois	208	26.0
6	Dallas, Texas	37	4.6
7	Kansas City, Missouri*	31	3.9
8	Kansas City, Missouri*	14	1.8
9	San Francisco, California**	97	12.1
10	San Francisco, California**	24	3.0
11	Multi-Region	109	13.6
	Cumulative Totals	798	100.0

* Region 7 and Region 8 share a regional headquarters

** Region 9 and Region 10 share a regional headquarters

The regions with the greatest concentration of these programs were the Midwestern United States, headquartered in Chicago, Illinois (26.0%), the Northeastern United States (12.8%), headquartered in New York, and the Pacific Northwest (12.1%), headquartered in San Francisco. There were also 109 (13.6%) multi-regional agreements included in this study.

Summary

This chapter reports the data analysis of the research questions of this study. Included in this chapter are a review of the study's population and a description of the methodological procedures used during the data gathering process.

The data are organized around the three research questions. These data describe the most common union-management joint training programs to include their principal characteristics. Data that describe the geographic, union affiliation, and standard industrial classification distribution of these programs are also reported in this chapter.

Chapter 5

Summary, Conclusions, and Recommendations

Introduction

This chapter summarizes the study and presents its conclusions and recommendations. It is divided into eight sections. The first section restates the problem that this study addressed. The second section reviews the purposes of the study. The third section includes a restatement of the study's research questions. The fourth section discusses the study's research methodology. The fifth section summarizes the study's findings while the sixth section delineates conclusions drawn from the findings. The seventh section provides an extensive discussion of the potential policy applications of the information gathered through this study and the literature review process. The eighth section discusses the researcher's recommendations regarding follow-up research. A chapter summary is also provided.

Problem Statement

Joint union-management training programs have emerged as one of the most significant innovations in employee training programs during the past fifteen years. Research has shown that joint labor-management training

programs have distinct characteristics: negotiated contract language through which they are established; substantial funds available for their operation; and joint decisionmaking as an inherent operating principle.

Unfortunately, comprehensive information regarding joint labor-management training programs' origins, prevalence, or distribution has not been systematically collected and analyzed. Information regarding these programs' governance, organization, structure, operation, and management has been reported only using anecdotal approaches. This information void has constrained systematic program evaluation. It has also limited policy, pedagogical, or technical application of the potentially valuable lessons learned during these programs.

This study systematically collected and analyzed information regarding existing joint labor-management training programs that were established and conducted through a collective bargaining agreement. The study determined the geographic, union, and industrial classification distribution of four program types: apprenticeships, training programs, educational leave programs, and tuition assistance programs. Information regarding these programs' governance, organization, structure, operation, and management has also been collected, analyzed, and reported.

Purposes of the Study

This study had two purposes. First, the study systematically collected and analyzed information regarding four types of existing joint labor-management training programs: skills training, apprenticeships, tuition assistance, and educational leave programs. Second, the study identified potential governmental, pedagogical, and technical policies learned through these programs.

Research Questions

This study achieved its purposes by conducting research and analysis that focused on three research questions:

1. What are the most common joint union-management training programs included in collective bargaining agreements?
2. What are the characteristics of common joint union-management training programs?
3. What are the geographic, union affiliation, and standard industrial classification distributions of joint union-management training programs?

Research Procedures

This research used content analysis methodology to analyze the data. The 798 collective bargaining agreements included in this study were analyzed using a content analysis guide. This guide formed an effective systemic framework through which the researcher extracted information from the collective bargaining agreements. Additional contextual knowledge was gained by reviewing available literature, analyzing similar studies, and interviewing researchers familiar with current joint training program initiatives.

The content analysis guide included 27 principal categories germane to this study. These categories were selected based on the researcher's general knowledge and by reviewing available literature, analyzing similar studies, and interviewing researchers familiar with current joint training program initiatives.

A coding system facilitated use of machine readable entries and an optical mark reader processing system. Information needed to answer the research questions was extracted from each collective bargaining agreement's master file and transferred onto an optical scan form using a coding system developed specifically for this study.

During this study, reliability was ensured by having three qualified coders complete the optical scan forms for 17 randomly selected collective bargaining agreements. These agreements represented approximately two percent of the collective bargaining agreements included in the study. Prior to coding the agreements, each coder was trained regarding the study's purpose, specific terms, data collection processes, and data coding processes. Approximately five days later, each coder was asked to complete a second optical scan form for the same 17 collective bargaining agreements. Individual coder reliability was determined by comparing data inputs provided by each coder on the first and second optical scan forms to determine if any variation could be observed in their responses over time. Accuracy and, by extension, intercoder reliability were determined by dividing the total number of agreements by the total number of coding decisions.

The data were analyzed using Statistical Analysis Software, Release 6.07. This powerful statistical analysis software allowed manipulation of the data to produce the descriptive statistics of proportions, percentages, ratios, and rates, that were used to describe the collected data. Relational measures were also used, when appropriate, to express frequencies found within a

given category or categories. Specific statistical analyses related to each research question were completed.

Summary of Findings of the Study

During this study, the researcher examined 1608 collective bargaining agreement files archived at the United States Bureau of Labor Statistics, Division of Industrial Relations, Department of Labor-Management headquarters and identified 798 (50%) files that contained at least one targeted training provision. This study's population included agreements with 79 (59%) of the 135 unions that submitted collective bargaining agreements during the period being studied and that met the study's other requirements.

The Bureau of Labor Statistics also indexes its collective bargaining agreements by the standard industrial classification of the company involved in the agreement. This study's population included companies classified within 47 (65%) of the 72 standard industrial classifications appropriate for private sector companies.

Training Provisions

The training provisions most commonly found in these collective bargaining agreements were the four programs included in this study: skills training, apprenticeship, tuition assistance, and educational leave.

Skills Training.

Skills training provisions cover personal development, personal enrichment, and technical training courses and are developed to meet company, union, and member needs for increased skills. Skills training provisions were stipulated in 787 (99%) of the 798 agreements included in the study and 76 (96%) of the 79 different unions represented by this study's population. These high percentages indicate that maintaining and upgrading members' skills was a primary goal shared by the companies and unions included in this study.

Skills training provisions were not included in any agreements with the Leather Goods, Plastics, and Novelty Workers Union (UC 141), the Novelty and Production Workers Union (UC 221), and the National Football League Players Association (UC 520). All (100%) standard industrial classifications covered by the study included not less than one agreement with at least one skill training provision.

Joint funding to provide training for specific jobs within the company were included in 787 (99%) agreements. General job skills training activities that did not train a person for a specific job within the company were allowed in 743 (93%)⁴¹ agreements that included skills training clauses or provisions. Job skills training courses that helped workers adapt to new technologies being introduced into the company were covered in 761 (96%) agreements.

Programs that allowed workers to obtain their high school diploma or general equivalency diploma were less common and were found in only 121 (16%) agreements. This provision was found in 23 (40%)⁴² agreements with the International Laborers Union (UC 143), 21 (81%) agreements with the Communications Workers of America (UC 346), 18 (22%) agreements with the International Brotherhood of Electrical Workers (UC 127), and 16 (28%) agreements with the United Steel Workers (UC 335).

High school diploma completion or general equivalency diploma completion programs were allowed in 33 (73%)⁴³ agreements with companies

⁴¹ All percentage figures in the remainder of this paragraph represent a percentage of the 787 agreements that included skills training provisions.

⁴² All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that provided funding for employees to finish their high school diploma or obtain a general equivalency diploma. They do not represent a percentage of all agreements studied.

⁴³ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included funding for high school diploma completion or general equivalency diploma completion programs. They do not represent a percentage of all agreements studied.

in the Transportation and Public Utilities, Electric and Gas (SIC 49) classification, 19 (17%) companies in the Construction, Special Trade Contractors (SIC 17) classification, 16 (22%) companies in the Manufacturing, Transportation Equipment classification (SIC 37), and 16 (15%) companies in the Construction, General Building Contractors (SIC 15) category.

Not many agreements, regardless of standard industrial classification or union affiliation, provided funding for personal development courses. These type courses were generally self-selected by the employee and were focused on specific employee interests rather than company needs. The Communications Workers of America (UC 346) was the only union to include this provision in over half their agreements with 21 (80%)⁴⁴ agreements including this provision. Personal development courses were also covered by 14 (24%) agreements with the United Steel Workers (UC 335).

No single standard industrial classification represented a significant majority of the companies that provided funding for personal development courses. This funding was found in 33 (73%)⁴⁵ of all agreements with companies in the Transportation and Public Utilities, Communications (SIC

⁴⁴ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that provided funding for personal development courses. They do not represent a percentage of all agreements studied.

⁴⁵ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included funding for personal development courses. They do not represent a percentage of all agreements studied.

48) classification and 13 (30%) agreements with companies in the Manufacturing, Primary Metal Industries (SIC 33) classification.

Apprenticeship.

Apprenticeship provisions were included in 604 (76%) agreements spread among 61 (88%) different unions. Apprenticeship provisions were most commonly encountered in agreements with manufacturing or construction companies. Apprenticeship provisions were found in 34 (100%)⁴⁶ agreements with the Union of Operating Engineers (UC 129), 30 (100%) agreements with the Plumbers and Pipefitters Union (UC 170), 64 (98%) agreements with the Brotherhood of Carpenters and Joiners(UC 119), 51 (88%) agreements with the United Steelworkers (UC 335), and 66 (78%) agreements with the International Brotherhood of Electrical Workers (UC 127). The United Auto Workers (UC 302) had 40 (83%) agreements with apprenticeship provisions while the International Association of Machinists (UC 218) also had 40 (98%) agreements with these provisions.

Apprenticeship provisions were extant in agreements categorized into 38 (81%) of the 47 standard industrial classifications covered by this study's population and were most frequently found in standard industrial

⁴⁶ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

classifications associated with the construction industry. The Construction, Special Trade Contractors (SIC 17) classification had the most agreements including apprenticeship provisions with 109 (99%)⁴⁷ agreements. The Construction, General Contractors (SIC 15) classification had this provision in 72 (81%) agreements while the Construction, Heavy Construction (SIC 16) classification had this provision in 55 (75%) agreements. Apprenticeship provisions were also found in 63 (85%)⁴⁸ agreements in the Manufacturing, Transportation Equipment (SIC 37) classification, 42 (88%) agreements in the Transportation and Public Utilities, Electric and Gas (SIC 49) classification, and 40 (91%) agreements in the Manufacturing, Primary Metal Industries (SIC 33) classification.

Tuition Assistance.

Tuition assistance clauses were found in 267 (34%) of the 798 agreements included in this study. These provisions were widely spread across the union spectrum and were discovered in agreements with 53 (67%) of the 79 different unions represented in this study's population.

⁴⁷ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

⁴⁸ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included apprenticeship provisions. They do not represent a percentage of all agreements studied.

Agreements with five unions comprised 51% of all agreements that contained tuition assistance or reimbursement provisions. This grouping included 34 (71%)⁴⁹ agreements with the United Auto Workers (UC 302), 34 (40%) agreements with the International Brotherhood of Electrical Workers (UC 127), 25 (43%) agreements with the United Steel Workers (UC 335), 23 (88%) agreements with the Communications Workers of America (UC 346), and 20 (49%) agreements with the International Association of Machinists (UC 218). Independent, single company unions (UC 500) also stressed tuition assistance benefits with 11 (71%) agreements including this provision.

Though tuition assistance or reimbursement provisions was found in agreements with companies in nearly every standard industrial classification, agreements with companies in four classifications represented nearly 40% of all agreements that contained this provision. This provision was found in agreements with 40 (89%)⁵⁰ companies in the Transportation and Public Utilities, Communications (SIC 48) classification, 39 (53%) companies in the Manufacturing, Transportation Equipment (SIC 37) classification, and 27 (96%) companies in the Services, Health Services (SIC 80) classification.

⁴⁹ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included tuition assistance provisions. They do not represent a percentage of all agreements studied.

⁵⁰ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included tuition assistance provisions. They do not represent a percentage of all agreements studied.

Employers often require that a course of study paid for through a tuition assistance or reimbursement provision be job related. This requirement was included in 216 (82%)⁵¹ agreements in this study including 28 (82%)⁵² agreements with the International Brotherhood of Electrical Workers (UC 127), 28 (82%) agreements with United Auto Workers (UC 302), and 20 (80%) agreements with the United Steel Workers (UC 335).

Many employers require that any course of study paid for through a tuition assistance or reimbursement provision be job related. In the Services, Health Services (SIC 80) classification, 27 (100%)⁵³ agreements included this stipulation while in the Manufacturing, Transportation Equipment (SIC 37) classification, 35 (90%) agreements also included the same requirement. Only 19 (48%) agreements in the Transportation and Public Utilities, Communications (SIC 48) category had this provision, however, due to objections raised during the collective bargaining process by the Communications Workers of America.

⁵¹ This percentage figure represents the percentage of the 267 agreements with tuition assistance or reimbursement provisions that required courses taken be job related. It does not represent a percentage of all agreements studied.

⁵² This percentage figure and others in the remainder of this paragraph represent only the percentage of agreements with a specifically referenced union that allowed tuition assistance or reimbursement and required that the courses taken be job related. They do not represent a percentage of all agreements studied..

⁵³ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that allowed tuition assistance or reimbursement and required that the courses taken be job related. They do not represent a percentage of all agreements studied.

In this study, 216 (82%)⁵⁴ agreements stipulated that the worker would be paid or reimbursed 100% of their tuition, books, and fees costs. An additional 19 (7%) agreements stipulated that workers would receive between 50% and 99%. Another 32 (12%) agreements stated that workers would be eligible for tuition payment or reimbursement but did not include clear language regarding the reimbursement amount or process.

Many workers would like their company to prepay the tuition and fees for any class or course they might take. This was not the case among the agreements included in the study, however, where 176 (66%)⁵⁵ agreements stipulated that tuition would be paid or reimbursed only after successful completion of a class or course. An additional 40 (15%) agreements did not contain clear language regarding tuition prepayment. Tuition prepayment was stipulated in only 61 (22%) agreements. Among the larger unions, only the Communications Workers of America (UC 346) was able to get this provision into a majority (91%) of its agreements.

Some unions negotiated the provision of tuition assistance for members who became displaced during the duration of the negotiated

⁵⁴ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that allowed tuition assistance or reimbursement and stipulated a percentage of the tuition that the company would pay. They do not represent a percentage of all agreements studied.

⁵⁵ All percentage figures in this paragraph represent only the percentage of agreements that allowed tuition assistance or reimbursement and stipulated when tuition would be paid. They do not represent a percentage of all agreements studied.

contract. This provision was included in 70 (27%) of the agreements that allowed tuition assistance including 18 (78%)⁵⁶ agreements with the Communications Workers of America (UC 346), 13 (38%) agreements with the International Brotherhood of Electrical Workers (UC 127), and 13 (41%) agreements with the United Auto Workers (UC 302).

Educational Leave.

Educational leave programs allow union members to take approved extended absences for educational purposes and often include loan programs. Educational leave provisions or clauses were the least frequently identified benefit and were extant in only 102 (13%) agreements included in this study. Agreements with this provision were also widely diffused among unions, however, and were found in agreements with 29 (37%) different unions. This clause was found in 25 (56%)⁵⁷ agreements with the United Auto Workers (UC 305) and 16 (28%) agreements with the United Steel Workers (UC 335). This provision was not concentrated in any specific union.

Educational leave provisions were also widely spread among standard industrial classifications. These provisions were found in 22 (47%) of the

⁵⁶ This percentage figure and all other percentage figure in the remainder of this paragraph represent the only the percentage of agreements that allowed tuition assistance or reimbursement and stipulated that tuition assistance would be available to displaced workers. They do not represent a percentage of all agreements studied.

⁵⁷ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that included educational leave provisions. They do not represent a percentage of all agreements studied.

classifications covered by this study. Educational leave clauses were found in 27 (38%)⁵⁸ agreements with companies in the Manufacturing, Transportation Equipment (SIC 37) classification, 17 (61%) agreements with companies in the Services, Health Services (SIC 80) classification, and 9 (21%) agreements with companies in the Manufacturing, Primary Metal Industries (SIC 33) classification.

Most agreements that allowed educational leave required that the school be either an accredited institution or be approved by the company's training officer. This condition was stipulated in 98 (96%)⁵⁹ of the agreements in this study that included educational leave provisions. All (100%) agreements with the United Auto Workers, the Service Employees International Union, the International Brotherhood of Electrical Workers, the International Brotherhood of Electrical and Electronics Workers, and the Communications Workers of America included this requirement.

A limited number of agreements required that an employee be eligible to be paid during an educational leave. This stipulation was in 75 (73%)⁶⁰ of

⁵⁸ All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included educational leave provisions. They do not represent a percentage of all agreements studied.

⁵⁹ This percentage figure represents the percentage of agreements included in the study that allowed educational leave and required that the school attended by the worker be either an accredited or approved institution.

⁶⁰ This percentage figure represents the percentage of agreements included in the study that allowed educational leave and stipulated that employees would be paid during the leave period.

the agreements in this study that included educational leave provisions. This provision was found in 18 (72%)⁶¹ agreements involving the United Auto Workers (UC 302), 12 (75%) agreements involving the United Steel Workers (UC 335), and 3 (75%) agreements involving the International Brotherhood of Electrical Workers (UC 127).

Workers were most likely to be paid during an educational leave period if they worked at companies in four standard industrial classifications. This provision was found in 21 (78%)⁶² agreements in the Manufacturing, Transportation Equipment (SIC 37) classification, 13 (76%) agreements in the Services, Health Services (SIC 80) classification, 13 (76%) agreements in the Manufacturing, Primary Metal Industries (SIC 33) classification, and 7 (100%) agreements in the Transportation and Public Utilities, Communications (SIC 48) classification.

⁶¹ This percentage figure and all other percentage figures in the remainder of this paragraph represent only the percentage of agreements with a specifically referenced union that included educational leave provisions and required that workers be paid during their educational leave. They do not represent a percentage of all agreements studied.

⁶² All percentage figures in this paragraph represent only the percentage of agreements within a specifically referenced standard industrial classification that included educational leave provisions and required that workers be paid during their educational leave. They do not represent a percentage of all agreements studied.

Program Characteristics

Program Management.

Joint training program committees were stipulated in 483 (61%) collective bargaining agreements included in this study. This large number signifies an important evolution in joint training programs since the first model joint training programs were usually set up as nonprofit corporations.

Agreements stipulating a joint training committee were widely distributed among the 79 union affiliations included in this study. Joint training committees were stipulated in 41 (73%)⁶³ agreements with the United Steel Workers (UC 335), 31 (65%) agreements with the United Auto Workers (UC 302), 23 (88%) agreements with the Communications Workers of America (UC 346), 22 (54%) agreements with the International Association of Machinists (UC 218), and 16 (94%) agreements with the Service Employees International Union (UC 118).

Agreements stipulating a joint training committee were also widely distributed among standard industrial classifications. This stipulation was found in 43 (58%)⁶⁴ agreements in the Manufacturing, Transportation

⁶³ All percentage figures in this paragraph represent only the percentage of agreements with a specifically referenced union that stipulated establishment of a joint training committee. They do not represent a percentage of all agreements studied.

⁶⁴ All percentage figures in this paragraph represent a percentage of agreements within a specifically referenced standard industrial classification that stipulated establishment of a joint training committee. They do not represent a percentage of all agreements studied.

Equipment (SIC 37) classification, 38 (84%) agreements in the Transportation and Public Utilities, Communications (SIC 48) classification, 35 (80%) agreements in the Manufacturing, Primary Metal Industries (SIC 33) classification, and 25 (89%) agreements in the Services, Health Services (SIC 80) classification.

Labor and management representation on the joint training committee was consistent regardless of the union or company that was party to the collective bargaining agreement. Equal labor and management representation was stipulated in 461 (96%)⁶⁵ of all agreements. Labor was given more representatives on the committee in 11 (2%) agreements while management was given more representatives in six (1%) agreements. The committee's composition was not stipulated in four (1%) agreements.

The frequency of joint training program committee meetings was stated in some agreements. Monthly meetings were required by 244 (51%)⁶⁶ agreements while quarterly meetings were mandated in 11 (3%) agreements and semi-annual meetings in 12 (3%) agreements. Clauses regarding meeting frequency were not included in 206 (43%) agreements.

⁶⁵ All percentage figures in this paragraph represent a percentage of the agreements that stipulated establishment of a joint training committee and specified labor and management representation on the joint training committees. They do not represent a percentage of all agreements studied.

⁶⁶ All percentage figures in this paragraph represent a percentage of the agreements that stipulated establishment of a joint training committee and specified the frequency of joint training committees. They do not represent a percentage of all agreements studied.

Participant Selection.

How participants in joint training programs are selected raises some critical issues. Allowing self-selection usually ensures that the person is sufficiently motivated and is, arguably, more likely to benefit from the training activity. Employee seniority is often taken into consideration during the selection process and generally reduces overall training effectiveness since it limits participation by less experienced workers who may have a greater need for training. Limiting participation through rigidly defined eligibility requirements can ensure the participant is better suited for the program and may result in a lower dropout rate. Allowing complete management discretion usually ensures the company's needs are met but may reduce the number of employees who participate in training activities (Ferman, et al, 1991).

Participant eligibility requirements were stated in 793 (99%) agreements but many agreements included more than one way an employee might be selected to participate. Self-selection or employee discretion was permitted in 633 (80%) agreements, while employee seniority was stated to be a consideration in 532 (67%) agreements. Management discretion was permitted in 476 (60%) agreements but was usually limited to participation with union members in the selection process.

Participant Eligibility.

Employees included in the collective bargaining unit were eligible participants in 795 (99%) agreements. Employees who were not bargaining unit members were deemed eligible in only 36 (5%) agreements.

Only 13 (2%) agreements allowed dependents of employees in the bargaining unit to participate in jointly funded training programs. This benefit was found in seven agreements with the Communications Workers of America (UC 346) and six agreements with the United Auto Workers (UC 302). In only two (< 1%) agreements were dependents of employees who are not bargaining unit members allowed to participate in jointly funded activities.

Assistance To Terminated or Outplaced Workers.

Many joint training programs, particularly those innovative programs originating in the auto industry, were originally developed to assist displaced workers. These programs offered a wide variety of training and counseling services. Over time, these program benefits were extended to active workers.

Assistance to workers who were being terminated or outplaced was stipulated in 79 (10%) agreements included in this study. Skill training for specific job skills for displaced or terminated employees was included in 75

(96%)⁶⁷ agreements while skill training for displaced or terminated employees to accommodate new technologies was allowed in 72 (92%) agreements and basic skills training was provided for in 70 (90%) agreements. The latter is odd since one would expect that most unemployed persons are urgently seeking employment and cannot afford to participate in longer term efforts, e.g. basic skills development.

Career counseling for the displaced or terminated worker was allowed in 64 (82%)⁶⁸ agreements, while 65 (83%) agreements included provisions that allowed payment of tuition and fees for college credit courses taken by these workers. Personal development courses, e.g. personal financial management courses, were the least likely provision with only 47 (60%) agreements allowing tuition or fee subsidies for personal development courses taken by displaced or terminated workers.

Program Funding.

Contract clauses indicating funds had been earmarked for joint training programs and placed into a separate fund were found in 473 (59%) agreements but did not exist in 325 (41%) agreements. Among agreements

⁶⁷ This percentage figure and all other percentage figures in the remainder of this paragraph represent only a percentage of the agreements that stipulated assistance to workers who were being terminated or outplaced. They do not represent a percentage of all agreements studied.

⁶⁸ This percentage figure and all other percentage figures in the remainder of this paragraph represent only a percentage of the agreements that stipulated assistance to workers who were being terminated or outplaced. They do not represent a percentage of all agreements studied.

that stipulated separate funding for joint programs, 198 (42%)⁶⁹ indicated a funding formula based on a defined contribution per employee hour worked. A fixed annual contribution per employee was identified as the funding means in another 74 (16%)⁷⁰ agreements while a fixed annual contribution for all employees was the funding means in 30 (6%)⁷¹ agreements. The remaining 171 (36%)⁷² agreements stipulated a separate fund but did not include any language that identified a specific funding formula or amount.

Funding formulas that defined a contribution for each hour worked by any eligible employee were found in 198 (42%) of the 473 agreements and were most evident in agreements involving construction-oriented trade unions. This type formula was found in 52 (\underline{M} = .15 per hour) agreements with the Laborers International Union (UC 143), 31 (\underline{M} = .11 per hour) agreements with the Brotherhood of Carpenters and Joiners (UC 119), 20 (\underline{M} = .21 per hour) agreements with the International Union of Operating Engineers (UC 129), and 17 (\underline{M} = .21 per hour) agreements with the Plumbers and Pipefitters Union (UC 170).

⁶⁹ This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs and based funding on a defined contribution per employee hour worked.

⁷⁰ This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs and based funding on a fixed annual contribution per employee.

⁷¹ This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs and based funding on a fixed annual contribution covering all employees.

⁷² This percentage figure represents the percentage of agreements that stipulated separate funding for joint training programs but did not include a specific funding formula or amount.

These funding clauses were also found most frequently in standard industrial classifications associated with the construction industry. These clauses were found in 64 (\underline{M} = .15 per hour) agreements with companies in the Construction, Special Trade Contractors (SIC 17) classification, 61 (\underline{M} = .13 per hour) agreements with companies in the Construction, General Building Contractors (SIC 15) classification, and 50 (\underline{M} = .18 per hour) agreements with companies in the Construction, Heavy Construction (SIC 16) classification.

Clauses that stipulated a fixed annual contribution per employee were found in 74 (16%) agreements and were widely distributed across union affiliations. These clauses were found in 13 (\underline{M} = \$1946 per employee) agreements with the United Auto Workers (UC 302), 12 (\underline{M} = \$2508 per employee) agreements with the International Brotherhood of Electrical Workers (UC 127), and 10 (\underline{M} = \$1151 per employee) agreements with the Communications Workers of America (UC 346).

Clauses stipulating a fixed annual contribution per employee were found most frequently in transportation-oriented industries. These clauses were found in 22 (\underline{M} = \$2907 per employee) agreements with companies in the Transportation and Public Utilities, Communications (SIC 48) classification and 15 (\underline{M} = \$2013 per employee) agreements with companies in the Manufacturing, Transportation Equipment (SIC 37) classification.

Clauses that specified a fixed annual contribution for all employees to a separate fund were extant in 30 (6%) agreements and were found most frequently in agreements involving larger, established unions. These clauses were found in eight (\underline{M} = \$943,749 all employees) agreements with the Communications Workers of America (UC 346), four (\underline{M} = \$142,426 all employees) agreements with the Service Employees International Union (UC 118), and three (\underline{M} = \$688,666 all employees) agreements with the United Auto Workers (UC 302).

Clauses specifying a fixed annual contribution for all employees to a separate fund were primarily found in two standard industrial classifications. These clauses were found in 12 (\underline{M} = \$171,309 all employees) agreements with companies in the Services, Health Services (SIC 80) classification and 10 (\underline{M} = \$954,999 all employees) agreements with companies in the Transportation and Public Utilities, Communications (SIC 48) classification.

Geographic Distribution.

Joint training agreements were concentrated in states that were more densely populated, have more traditional primary industries, or were defense industry oriented. States housing more than 10 percent of the joint training programs included in this study were Connecticut (20.3%),

California (10.5%), and New York (10.4%). Illinois (6.4%), Ohio (6.1%), Pennsylvania (5.4%), Wisconsin (3.8%), and Michigan (3.5%) also had significant joint training programs. Another 15.8% of all joint training programs were multi-state programs. States with no (0%) joint training programs were all located in the western United States and included Montana, North Dakota, Nebraska, Utah, Vermont, and Wyoming.

Based on regional boundaries established by the United States Department of Labor, Bureau of Labor Statistics, joint training programs are concentrated in regions dominated by manufacturing industries or defense-oriented industries. The regions with the greatest concentration of these programs are the Mideastern United States, headquartered in Chicago, Illinois (26.0%), the Northeastern United States (12.8%), headquartered in New York, and the Pacific Northwest (12.1%), headquartered in San Francisco. There were also 109 (13.6%) agreements in this study that applied in more than one region.

Conclusions

Based on the findings of this study, the following conclusions are supported:

1. Current joint training programs for active workers are oriented toward providing technical skills needed in today's workplace rather than building the individual worker's basic skills. Over 90% of the agreements included in this study supported training for workers in currently required job skills, general job skills, and new technology implementation.
2. Though popular literature indicates that reading, writing, and mathematics skills are becoming more important skills for today's workers, companies appear inclined to believe that these skills only obliquely impact their profitability or, more likely, see these activities as the individual workers' responsibilities. Support for career counseling, personal development courses, or high school diploma completion programs was limited to relatively few companies, unions, and standard industrial classifications.
3. Apprenticeship programs are the most common joint training program model and are evident in all industrial classifications. This training process is not, as previously reported, overwhelmingly dominated by the construction industry. Apprenticeship provisions at companies in construction oriented

standard industrial classifications represented just 39% of the total agreements with apprenticeship provisions. This percentage is only slightly higher than these agreements' representation within the study population since agreements with construction oriented companies represented 34% of the agreements studied.

4. Tuition assistance programs are extant in nearly every union and standard industrial classification. Though the United Auto Workers, the Communications Workers of America, the International Brotherhood of Electrical Workers, the United Steel Workers, and the International Association of Machinists were responsible for 51% of all tuition assistance or reimbursement agreements in this study, the remaining 49% are divided among nearly every other union and standard industrial classification.

5. Employers believe that placing certain restrictions on tuition assistance or reimbursement programs will motivate employees to complete courses, thus protecting the company from undue expenditures. Two restrictions, limited course eligibility and the tuition reimbursement schedule, are common. This study indicated that employers generally required that any course paid for through tuition assistance provisions be designated by the employer as being directly related to the employee's current job. This reduces use of the tuition assistance provision by workers interested only in

taking personal development courses or building skills not related to their current job. The study also revealed that employers did not prepay tuition or fees for students and required that a course be successfully completed before they reimbursed participants. This stipulation means that workers must pay for a course and then wait to be reimbursed at a later date. This out-of-pocket expenditure prevents some interested workers from taking classes.

Unfortunately, these employer restrictions commonly reduce employee participation in these programs (Ferman, et al, 1991) and reduce the effectiveness of this benefit.

6. Educational leave programs are uncommon and are generally restricted to veterans returning from active duty. Educational leave provisions were found in only 102 or 13% of the agreements included in this study. About three-quarters (73%) of the agreements with this provision will, however, provide some pay for workers during an approved educational leave.

7. Companies and unions believe they have the internal capacity for managing these initiatives. Joint training committees were stipulated in 483 (61%) agreements representing a significant evolution in joint training program management approaches. The original joint training programs, e.g.

Ford Motor Company's program with the United Auto Workers, were most often formed as non-profit corporations.

8. Joint training programs provide a platform upon which management and labor are equals and are an excellent vehicle for increasing union-management cooperation. In this configuration, each faction holds equal power on these committees, forcing management and labor to work together to accomplish their program goals. Joint training program committees in this study generally had equal management and labor representation.

9. Allowing employees to select the training programs in which they will participate may ensure that they are motivated and will likely increase participant success rates. It does not, however, ensure that the company's or union's training investment is optimally expended. Other selection criteria, such as employee seniority, education, attendance records, etc. may be more appropriate determinants. Participation by employees who most needed training or who, if trained, would be most likely to increase company efficiencies is not ensured. This study indicated that participation in joint training programs was most frequently at the discretion of the individual employee (80%).

10. Union members recognize that joint training programs are a bargained benefit that they are accepting in lieu of increased wages and do not seem to

be inclined toward extending this benefit to non-bargaining unit members. Employees who were members of the collective bargaining unit were stipulated as eligible participants in 795 agreements. Employees who were not included in the bargaining unit were eligible for participation in only 36 agreements. This finding contradicts conclusions found in previous studies (Ferman & Hoyman, 1991) that indicated greater inclusion of employees who were not members of the bargaining unit.

11. Agreements that provide services to outplaced or terminated workers are generally limited to larger unions such as the United Auto Workers or the Communications Workers of America. This study indicated that only ten percent of the joint training programs offered training and counseling services to their outplaced or terminated workers. These programs were, however, very generous and were among the very few programs that offered career counseling services.

12. Funding for joint training programs varies widely but is becoming a more common collective bargaining issue. Most programs are funded through separately maintained joint training funds with the funding formulas stipulated in the collective bargaining agreements. In this study, 473 (60%) agreements included funding information with most agreements

stipulating a separately maintained fund. This contravenes conclusions from earlier studies (Ferman, et al, 1991) that joint training programs have a high degree of informality in their funding arrangements.

13. Joint training programs are more likely to be found in states that are more densely populated, have more traditional primary industries, or are defense industry oriented. Joint training programs in the study were concentrated in Connecticut, California, New York, Illinois, Ohio, and Pennsylvania.

Researcher's Commentary On Future Policies, Perspectives, and Initiatives

The previous sections have focused on describing joint training programs extant during the 1990-1994 period. As worldwide competition becomes more fierce, it is becoming clear that our companies must be transformed into more flexible, high performance, competitive organizations if we hope to remain an economic superpower. Organizational policies, perspectives, and initiatives must be developed that support this demanding transformation.

Through this study, the researcher has learned that workplace innovations built upon genuine cooperation between unions and management can give companies a sharp competitive edge, an inherent

capacity for organizational renewal, and a human resource that is much more productive than any technology or capital investments. Investments must be carefully strategized and must be linked to additional employee training investments. This perspective is supported by Shoshana Zuboff, a Harvard Business School researcher who said, "It makes little sense to invest in new technology without serious parallel investment in the skills development that will allow the technology to be utilized powerfully. That means investing in people not just [technology] systems..." (Rosow & Casner-Lotto, 1994).

The following sections describe policies, perspectives, or initiatives required to achieve the workplace transformation companies will need to succeed. The researcher recognizes that transformation is an evolutionary process and that unanticipated market or technological constraints could cause companies to alter their directions.

Unions

Unions must become more participative, member sensitive, and flexible in their organizational and representational structures. They must seek a positive tone for the future and work to establish environments that value cooperation with management and seek to resolve grievances without creating adversarial conditions. Even though joint approaches must be designed to ensure they empower and improve conditions for the worker

and the union, bargaining sessions must become problem-solving and strategic planning sessions and grievance reviews must be seen as an opportunity to improve working conditions (Cohen-Rosenthal & Burton, 1993).

The union's leadership must assume the role of "change agents" and be prepared to educate their members regarding the advantages of joint training programs over the unilateral programs more commonly offered by companies, unions, governments, or other organizations. These advantages include better training programs, broader opportunities for participation, and formal mechanisms to guarantee worker involvement (Ferman, et al, 1991).

The union must be prepared to counter negative information being disseminated by dissident factions who oppose cooperation on ideological grounds. Members must be told that union leaders are not being co-opted by management and that their actions regarding joint training programs will increase job security, provide more training opportunities, and strengthen the union's long-term position.

Basic union policies must also change. Unions must be more willing to deviate from national contracts in order to allow local experimentation. They must be more willing to work with management to implement best

practices and new work models. Individual union members must be willing to accept responsibility for decisions and to demonstrate initiative.

Companies

Genuine cooperation will only thrive if management views its rewards as outweighing its risks. Cooperative relationships cannot tolerate management actions that demonstrate a lack of trust between management and unions; a reluctance to forego unilateral management decisionmaking; and a resistance to sharing power with the union. Companies must be willing to make substantial investments in workforce and company resources needed to transform their production processes.

The traditional division between management and labor prevents partnerships and hampers productivity. The partnership model demonstrated through joint training programs strengthens day-to-day relationships, breaks down communication barriers, and, eventually, increases productivity. The mutual commitment required for successful joint training initiatives requires that labor and management share responsibility for the company's economic and social performance. As the company and the union become more intertwined in daily decisionmaking, they will realize the significant benefits of this new partnership.

Corporate policies must also change for joint training partnerships to be successful. Decisionmaking authority must be decentralized with more autonomy given to operational units. Smaller business units must be established to facilitate planning, operations, improvements, and assessments. Collective bargaining and day-to-day labor relations must take place at the lower levels.

Government

Joint training programs often involve government participation or financial support. In the future, government programs will need to be more adaptive, more private sector oriented, and more sensitive to the needs of workers and unions. Government representatives must be prepared to educate skeptical employers, employees, and unions regarding the structure, content, limitations, and advantages of their programs.

Currently, a significant number of government programs and initiatives are available to assist workers. These programs are supported by funding from local, state, and federal government sources and are broadly focused. They include basic skills development, technical training, or new technology adoption. In the future, these programs will need to be more accessible and have more flexible entry requirements.

National Training Policy

The American training system is diverse and includes high schools, vocational schools, community colleges, four-year colleges, research universities, private training vendors, businesses and industries. This institutional diversity produces an impressive array of training providers but lacks the seamless interdependence needed to ensure efficiency. This results in an undertrained, less competitive labor force and reduced training opportunities available for economically disadvantaged workers. This work force has fewer basic skills and is less able to adapt to new technologies.

In the future, an expanded national employment process may be needed to ensure our economic competitiveness. Systems will be needed to ensure that entry level workers are more skilled, more communicative, and more entrepreneurial. Increased government funding for training programs at high schools, vocational schools, and community colleges would be very useful. Currently, skills development programs for entry level workers are being developed to meet entry level workers' training needs through funding provided by the School-To-Work Opportunities Act of 1994.

Meeting mature workers' training needs will require a substantial investment. Many companies, recognizing that training investments can increase their productivity, are providing significant training opportunities

for their workers. These companies generally recognize that more systemic initiatives produce greater benefits.

Government programs that provide technical, financial, or tax supports are most likely to have the greatest impact on mature workers. More clear definitions are needed regarding training program eligibility, baseline measurements regarding current training efforts (Osterman, 1990), and measurements regarding the impact of any government assistance or investments.

Dislocated Workers

Dislocated mature workers are a serious concern for unions, management, and government. As these displacements have become more permanent, emphasis has been placed on worker training, retraining, and relocation services. Unions and management have agreed to jointly pursue funds available through the Defense Conversion and Economic Adjustment Program, the Job Training Partnership Act, and the Trade Readjustment Act for lessening these impacts (Savoie, 1985).

Government funding support for Regional Career Services and Reemployment Assistance Centers would provide a safety net that currently does not exist for displaced workers. These centers should not be linked to specific plant shutdowns but should be strategically placed in areas where

high unemployment rates exist. These centers would be similar to the “one-stop” employment assistance centers recently established through the Empowerment Zones and Enterprise Zones programs. Similar centers have been sporadically funded through cooperative union-management ventures and have provided counseling, job placement assistance, and prepaid tuition assistance for dislocated workers.

Recommendations For Future Research

This study has identified three primary voids in the body of research available at this time. First, given the large number of joint training programs identified through this study, it is clear that a comprehensive census regarding joint training programs is merited. Such research should focus on program services, training processes, and governance issues.

Second, inadequate attention has been given to labor’s and management’s motivations for starting and maintaining joint training programs. These programs require more frequent interaction between labor and management interaction than is normally experienced in training programs unilaterally initiated by employers, governments, unions, or other organizations. This relationship will initially be uncomfortable for

traditional management or labor representatives and will require that adjustments be made.

Though case study evidence suggests that employee participation in the decisionmaking process is a key element in these programs' successes, a more formal evaluation process would be helpful. This process would document what happened during the program but would also be able to address what would have happened if shared funding, decisionmaking, and governance were not part of the company's training programs.

Third, research regarding the role that education professionals play in joint training programs would be helpful. Education professionals, such as counselors or instructors, are often seen as neutral parties and can play a critical role in joint training programs' operations. Little information exists, however, regarding these persons' impact on instructional design or quality. Research in this area should focus on the effectiveness of subcontracting with community colleges or technical schools for instruction or the effectiveness of on-site versus off-site instruction.

Summary

Throughout the United States, workers are participating in training programs jointly established by their union and their company. These

employees are learning technical skills, developing basic skills, and enriching their personal life. These programs share unique characteristics including their contract language, funding arrangements, programmatic content, educational approach, and shared governance.

Joint training programs have become an accepted collective bargaining provision. They can help management and labor overcome non-productive attitudes. They can stimulate innovation and are a valuable catalyst for change.

This chapter includes a summary of the purposes of the study and the research methods. These sections are followed by a review of the findings. Conclusions are presented and discussed. The researcher's comments on future policies, perspectives, and initiatives and recommendations regarding future research needs are also included.

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Appendix A: Content Analysis Guide

JOINT UNION-MANAGEMENT TRAINING PROGRAMS

Proposed Content Analysis Guide

SECTION 1 - DEMOGRAPHIC INFORMATION

1. Company Information

- a. Industrial Relations Contact Person: _____
- b. Company Name: _____
- c. Mailing Address: _____
- d. City: _____
- e. State: _____ f. Zip Code: _____
- g. Business Telephone: _____ h. Business Fax Number: _____
- i. SIC Code: _____ j. Employees (#) Covered by Agreement: _____

2. Union Information

- a. Contact Person: _____
- b. Union Name: _____
- c. Union Local Number(s): _____
- d. Mailing Address: _____
- e. City: _____
- f. State: _____ g. Zip Code: _____
- h. Business Telephone: _____ i. Business Fax Number: _____
- j. BLS Union Code: _____

3. Contract Information

- a. BLS Contract Number: _____ b. BLS Schedule Number: _____
- c. BLS Region Covered: _____ d. Contract Expiration Date: _____

SECTION 2 - PROGRAM CHARACTERISTICS

4. Does this collective bargaining agreement require that the company offer training activities for active workers?

- a. yes _____ b. no _____

If the answer to this question is “yes”, please check all activities below that are offered by the company. If the answer is “no”, go directly to Question 5.

- a. skill training to upgrade specific job-related skills, e.g. equipment operation _____
- b. skill training to upgrade general job-related skills, e.g. job safety _____
- c. skill training to accommodate new technologies, e.g. computer assisted machining _____
- d. personal development courses, e.g. personal financial management _____
- e. basic literacy development, e.g. math, reading skill building courses _____
- f. high school diploma completion, e.g. GED _____
- g. college credit courses _____
- h. career planning or counseling _____
- i. other _____
- j. unknown _____

5. Does the collective bargaining agreement include articles that require the company to offer tuition assistance or reimbursement for employees who take classes?

- a. yes _____ b. no _____

If the answer to this question is “yes”, please answer questions 6 through 10. If the answer is “no”, go directly to Question 11.

6. Do courses have to be job related to be eligible for tuition assistance or reimbursement?

- a. yes _____ b. no _____ c. unknown _____

7. Does the company pay or reimburse the entire tuition cost?

- a. yes _____ b. no _____ c. unknown _____

8. What is the maximum tuition which the company will pay or reimburse?

- a. maximum allowable amount \$ _____ per _____ (semester, year, etc.)
- b. maximum allowable percentage _____ %
- c. unknown _____

9. When does the company pay or reimburse the tuition? Please check only one (1) response.

- a. paid to educational institution before class is taken _____

- b. paid to employee before class is taken _____
- c. paid to educational institution after course is completed _____
- d. paid to employee after course is completed _____
- e. other _____
- f. unknown _____

10. Are employees who are being terminated or outplaced by the company eligible to receive tuition assistance?

- a. yes _____
- b. no _____
- c. unknown _____

11. Does the collective bargaining agreement include articles that require the company to allow employees to take approved educational leave?

- a. yes _____
- b. no _____

If the answer to this question is “yes”, please answer questions 12 and 13. If the answer to this question is “no”, go directly to Question 14.

12. Does educational leave have to be taken at an approved or accredited institution or school?

- a. yes _____
- b. no _____
- c. unknown _____

13. Is the employee paid during their educational leave? Please check only one (1) response.

- a. employee is not paid during educational leave _____
- b. employee is partially paid during educational leave _____
- c. employee is fully paid during educational leave _____
- d. unknown _____

14. Does the collective bargaining agreement include articles that require the company to participate in formal apprenticeship programs?

- a. yes _____
- b. no _____

If the answer to this question is “yes”, please answer questions 15 through 18. If the answer to this question is “no”, go directly to Question 19.

15. Is the company’s apprenticeship process or agreement limited to skilled crafts or trades?

- a. yes _____
- b. no _____
- c. unknown _____

16. Does the company have a separate apprenticeship council or committee?

- a. yes _____ b. no _____ c. unknown _____

17. Are funding levels for apprenticeship programs specified in the collective bargaining agreement?

- a. yes _____ b. no _____

18. If your answer to question 17 was "yes", please indicate the funding amount specified in the collective bargaining agreement.

- a. amount \$ _____ per _____ (hour, semester, year, etc.)
b. other _____

19. Are the company's joint training activities managed by a special labor-management committee specifically responsible for joint training activities (other than an apprenticeship committee)?

- a. yes _____ b. no _____

If the answer to this question is "yes", please answer questions 20 and 21. If the answer to this question is "no", go to Question 22.

20. Which of the following statements best describes the labor-management representation on this committee? Please check only one (1) response.

- a. more labor representatives than management representatives _____
b. more management representatives than labor representatives _____
c. equal labor and management representatives _____
d. unknown _____

21. How frequently does the committee responsible for the company's joint training activities meet? Please check only one (1) response.

- a. weekly _____ e. annually _____
b. monthly _____ f. has never met _____
c. quarterly _____ g. other _____
d. semi-annually _____ h. unknown _____

22. Which active employees are eligible to participate in joint training activities? Please check all responses which apply.

- a. employees included in bargaining unit _____
b. dependents of employees included in bargaining unit _____

- c. employees not included in bargaining unit _____
- d. dependents of employees not included in bargaining unit _____
- e. other _____
- f. unknown _____

23. How are participants in joint training programs selected? Please check all responses which apply.

- a. eligibility requirements as stated in collective bargaining agreement _____
- b. employee seniority as stated in collective bargaining agreement _____
- c. self selection or employee discretion _____
- d. management discretion _____
- e. other _____
- f. unknown _____

24. Does the collective bargaining agreement include articles that require the company to provide programs or services to employees who have been terminated or outplaced? If the answer to this question is “yes”, please answer the other portions of this question. If the answer to this question is “no”, go directly to question 25.

- a. yes _____
- b. no _____
- c. unknown _____

Does the company provide any of the following services for employees who have been terminated or outplaced by the company? Please check all responses which apply.

- a. skill training to upgrade specific job-related skills, e.g. equipment operation _____
- b. skill training to upgrade general job-related skills, e.g. job safety _____
- c. skill training to accommodate new technologies, e.g. computer assisted machining _____
- d. personal development courses, e.g. personal financial management _____
- e. basic literacy development, e.g. math or reading skillbuilding courses _____
- f. high school diploma completion, e.g. GED _____
- g. college credit courses _____
- h. career planning or counseling, e.g. resume preparation _____
- i. other _____

SECTION 5 - FUNDING

25. Are separate funds (excluding those funds specified for apprenticeship programs) earmarked for joint training programs? If the answer to this question is “yes”, please answer questions 26 and 27. If your answer to this question is “no”, please stop.

a. yes _____ b. no _____

26. What is the funding formula for the joint training programs? Please select only one (1) answer.

a. cents/per employee hour \$ _____

b. lump sum/each employee/per yr \$ _____

c. lump sum/all employees/per yr \$ _____

d. other _____

e. unknown _____

27. What is the funding formula for overtime hours?

a. cents/per employee hour \$ _____

b. lump sum/each employee/per yr \$ _____

c. lump sum/all employees/per yr \$ _____

d. other _____

e. unknown _____

Appendix B: Case Files Master List

A list of all case files used during this study or access to these case files may be obtained by contacting:

**Michael Hensley
5819 Lost Drive
Roanoke, Virginia 24018**

540-774-8591 (home)

540-231-7329 (office)

540-989-4455 (fax)

e-mail: mhensley@vt.edu

Appendix C: Coding System

JOINT UNION-MANAGEMENT TRAINING PROGRAMS

Content Analysis Coding System

SECTION 1 - DEMOGRAPHIC INFORMATION

1. Company Information

- a. Industrial Relations Contact Person: _____
- b. Company Name: _____
- c. Mailing Address: _____
- d. City: _____
- e. State: (1-2) _____ f. Zip Code: _____
- g. Business Telephone: _____ h. Business Fax Number: _____
- i. SIC Code: (3-6) _____ j. Employees (#) Covered by Agreement: (7-13)

2. Union Information

- a. Contact Person: _____
- b. Union Name: _____
- c. Union Local Number(s): _____
- d. Mailing Address: _____
- e. City: _____
- f. State: _____ g. Zip Code: _____
- h. Business Telephone: _____ i. Business Fax Number: _____
- j. BLS Union Code: (14-16) _____

3. Contract Information

- a. BLS Contract Number: (17-22) _____ b. BLS Schedule Number: _____
- c. BLS Region Covered: (23-24) _____ d. Contract Expiration Date: _____

SECTION 2 - PROGRAM CHARACTERISTICS

4. Does this collective bargaining agreement require that the company offer training activities for active workers? (25)

- a. yes 0 b. no 1

If the answer to this question is "yes", please check all activities below that are offered by the company. If the answer is "no", go directly to Question 5.

- a. skill training to upgrade specific job-related skills, e.g. equipment operation (26)
- b. skill training to upgrade general job-related skills, e.g. job safety (27)
- c. skill training to accommodate new technologies, e.g. computer assisted machining (28)
- d. personal development courses, e.g. personal financial management (29)
- e. basic literacy development, e.g. math, reading skill building courses (30)
- f. high school diploma completion, e.g. GED (31)
- g. college credit courses (32)
- h. career planning or counseling (33)
- i. other _____
- j. unknown _____

34) 5. Does the collective bargaining agreement include articles that require the company to offer tuition assistance or reimbursement for employees who take classes?

- a. yes 0 b. no 1

If the answer to this question is "yes", please answer questions 6 through 10. If the answer is "no", go directly to Question 11.

35) 6. Do courses have to be job related to be eligible for tuition assistance or reimbursement?

- a. yes 0 b. no 1 c. unknown 2

36) 7. Does the company pay or reimburse the entire tuition cost?

- a. yes 0 b. no 1 c. unknown 2

(37) 8. What is the maximum tuition which the company will pay or reimburse?

- a. maximum allowable amount \$ _____ per _____ (semester, year, etc.)
- b. maximum allowable percentage _____ %
- c. unknown _____

(38-40) 9. When does the company pay or reimburse the tuition? Please check only one (1) response.

- a. paid to educational institution before class is taken _____

- b. paid to employee before class is taken _____
- c. paid to educational institution after course is completed _____
- d. paid to employee after course is completed _____
- e. other _____
- f. unknown _____

1) 10. Are employees who are being **terminated** or **outplaced** by the company eligible to receive tuition assistance?

- a. yes _____
- b. no _____
- c. unknown _____

2) 11. Does the collective bargaining agreement include articles that require the company to allow employees to take approved educational leave?

- a. yes _____
- b. no _____

If the answer to this question is “yes”, please answer questions 12 and 13. If the answer to this question is “no”, go directly to Question 14.

3) 12. Does educational leave have to be taken at an approved or accredited institution or school?

- a. yes _____
- b. no _____
- c. unknown _____

4) 13. Is the employee paid during their educational leave? Please check only one (1) response.

- a. employee is not paid during educational leave _____
- b. employee is partially paid during educational leave _____
- c. employee is fully paid during educational leave _____
- d. unknown _____

15) 14. Does the collective bargaining agreement include articles that require the company to participate in formal apprenticeship programs?

- a. yes _____
- b. no _____

If the answer to this question is “yes”, please answer questions 15 through 18. If the answer to this question is “no”, go directly to Question 19.

16) 15. Is the company’s apprenticeship process or agreement limited to skilled crafts or trades?

- a. yes _____
- b. no _____
- c. unknown _____

18) 16. Does the company have a separate apprenticeship council or committee?

a. yes _____ b. no _____ c. unknown _____

8) 17. Are funding levels for apprenticeship programs specified in the collective bargaining agreement?

a. yes _____ b. no _____

9-51) 18. If your answer to question 17 was "yes", please indicate the funding amount specified in the collective bargaining agreement.

a. amount \$ _____ per _____ (hour, semester, year, etc.)

b. other _____

3) 19. Are the company's joint training activities managed by a special labor-management committee specifically responsible for joint training activities (other than an apprenticeship committee)?

a. yes _____ b. no _____

If the answer to this question is "yes", please answer questions 20 and 21. If the answer to this question is "no", go to Question 22.

1) 20. Which of the following statements best describes the labor-management representation on this committee? Please check only one (1) response.

a. more labor representatives than management representatives _____

b. more management representatives than labor representatives _____

c. equal labor and management representatives _____

d. unknown _____

5) 21. How frequently does the committee responsible for the company's joint training activities meet? Please check only one (1) response.

a. weekly _____ e. annually _____

b. monthly _____ f. has never met _____

c. quarterly _____ g. other _____

d. semi-annually _____ h. unknown _____

22. Which active employees are eligible to participate in joint training activities? Please check all responses which apply.

a. employees included in bargaining unit _____

b. dependents of employees included in bargaining unit _____

- (58) c. employees not included in bargaining unit _____
- (59) d. dependents of employees not included in bargaining unit _____
- e. other _____
- f. unknown _____

23. How are participants in joint training programs selected? Please check all responses which apply.

- (60) a. eligibility requirements as stated in collective bargaining agreement _____
- (61) b. employee seniority as stated in collective bargaining agreement _____
- (62) c. self selection or employee discretion _____
- (63) d. management discretion _____
- e. other _____
- f. unknown _____

4) 24. Does the collective bargaining agreement include articles that require the company to provide programs or services to employees who have been terminated or outplaced? If the answer to this question is "yes", please answer the other portions of this question. If the answer to this question is "no", go directly to question 25.

a. yes 0 b. no 1 c. unknown 2

Does the company provide any of the following services for employees who have been terminated or outplaced by the company? Please check all responses which apply.

- (65) a. skill training to upgrade specific job-related skills, e.g. equipment operation _____
- (66) b. skill training to upgrade general job-related skills, e.g. job safety _____
- (67) c. skill training to accommodate new technologies, e.g. computer assisted machining _____
- (68) d. personal development courses, e.g. personal financial management _____
- (69) e. basic literacy development, e.g. math or reading skillbuilding courses _____
- (70) f. high school diploma completion, e.g. GED _____
- (71) g. college credit courses _____
- (72) h. career planning or counseling, e.g. resume preparation _____
- i. other _____

SECTION 5 - FUNDING

25. Are separate funds (excluding those funds specified for apprenticeship programs) earmarked for joint training programs? If the answer to this question is "yes", please answer questions 26 and 27. If your answer to this question is "no", please stop.

3) a. yes _____ b. no _____

26. What is the funding formula for the joint training programs? Please select only one (1) answer.

4-75) a. cents/per employee hour \$ _____

6-79) b. lump sum/each employee/per yr \$ _____

0-85) c. lump sum/all employees/per yr \$ _____

6) d. other _____

e. unknown _____

27. What is the funding formula for overtime hours?

7-88) a. cents/per employee hour \$ _____

9-92) b. lump sum/each employee/per yr \$ _____

3-98) c. lump sum/all employees/per yr \$ _____

9) d. other _____

e. unknown _____

VITA

Stephen Michael Hensley

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Roanoke, Virginia 24018
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Education

Ed.D.	Virginia Polytechnic Institute and State University	Vocational-Technical Education Cognate Area: Management	1996
M.A.	Western New Mexico University	American History Minor Area: Economics	1981
B.A.S.	Western New Mexico University	American History Minor Area: Economics	1978

Experience

08/89	Virginia Polytechnic Institute and State University
to	Economic Development Assistance Center
Present	Blacksburg, Virginia 24061-0539

Director, Economic Development Assistance Center. Hensley currently manages a university research, training, and technical assistance center that provides research, training, and technical assistance for businesses, local governments, school divisions, regional economic development groups, and community based organizations in rural Virginia. During 1995, center projects have been named as economic development project of the year by the American Planning Association (Virginia Chapter) and the National Association of Management and Technical Assistance Centers. The center has also operated two federally funded small business assistance centers that have provided services to over 900 small businesses since 1991. Hensley is personally responsible for providing technical assistance, conducting training activities, developing annual operating plans, conducting needs assessments, managing research projects, and conducting applied research. Hensley manages five professionals, two clerical persons, and fifteen graduate students. He administers a \$430,000 annual budget.

Hensley chaired Governor L. Douglas Wilder's Rural Development Task Force from 1990-91. He currently serves on the Board of Directors for the Virginia Economic Bridge Initiative, the Southwestern Virginia Advanced Manufacturing Technology Center, and the Roanoke Educational Foundation. Hensley holds an academic appointment as an assistant professor in the University's College of Architecture and Urban Studies and teaches an Economic Development Practices course and a Grant Writing course each year.

12/87 Oklahoma State University at Okmulgee
to Noble Center For Advancing Technology, Suite 100
08/89 Okmulgee, Oklahoma 74447

Director, Technology Resource Center. Managed external education, displaced worker training, corporate industrial and technical training, advanced manufacturing assistance, and small business development efforts at OSU's community college branch campus. Responsible for developing credit and non-credit training programs for non-traditional students, establishing industrial partnerships, conducting needs assessments, recruiting business clients, and assisting small manufacturing businesses. Since the Technology Center's entire budget was based on "soft" contract funds, Hensley was also charged with client development and proposal writing. Hensley represented the institution on state economic development committees and advanced manufacturing consortiums, managed a ten person staff, and developed a \$613,000 annual budget. Hensley also taught numerous career development, technical training, and human resource development workshops and classes each year.

09/84 New Mexico State University Solar Energy Institute
to P.O. Box 3 SOL
12/87 Las Cruces, New Mexico 88003

Division Director, Technology Transfer And Education. Research project and technology transfer management position directing contract-funded research center's technology transfer activities. These activities included credit and non-credit classes, workshops, seminars, and publications for businesspersons, educators, government officials and consumers. Personally responsible for establishing industry partnerships, developing industrial training programs, and marketing programs. Managed six professionals, two technicians and fifteen work-study students who performed technical assistance, seminar development, media relations, public relations, video development, and library management duties. Represented institute during negotiations with government and private sector funding sources. Wrote and published numerous renewable energy publications. Wrote proposals securing over \$300,000 per year. Managed approximately \$375,000 annual budget.

12/80 El Paso Community College-Industrial Occupations Division
to P.O. Box 20500
09/84 El Paso, Texas 79998

Department Coordinator/Instructor. In Industrial Occupations Division, taught competency based construction technology, construction management and solar equipment installation programs from 1980-1984. From 1982-1984, Hensley was also Department Coordinator performing duties normally assigned to a Department Chair including supervising nine full-time and part-time instructors in the air conditioning, surveying, construction management, and construction technology disciplines. Duties included developing competency-based instruction, establishing long-range instructional goals, conducting local industrial needs assessments, recruiting part-time instructors, selecting industrial advisory council members, and recruiting students. During this time, all instruction in disciplines under Hensley's supervision was restructured into competency-based format. Managed \$125,000 budget (excluding personnel).

04/77 Mimbres Trace Construction Services, Inc.
to 4200 Sotol Avenue
12/87 Las Cruces, New Mexico 88001

Construction Management. Mr. Hensley maintained a part-time management and consulting role in this family owned and operated construction business for a ten year period. During this time, he negotiated labor contracts, developed building construction proposals, and supervised subcontractors. As a consultant, he also provided energy efficient design consulting and project management assistance to small general contracting businesses and residential owner-builders.

02/76 Howell Drug Inc.
to 201 Bullard Street
4/77 Silver City, New Mexico 87503

General Manager. Managed diversified corporation which included two restaurants, one nightclub, one drug store, and one pharmacy. Hensley's duties included all personnel, operations, and financial management functions. Under Hensley's management, this corporation employed 27 persons and netted 12% on sales of \$3.2 million. Mr. Hensley returned to graduate school when this corporation was purchased by a large hospitality oriented holding company

Awards

1996 Fellow, Samuel M. Walton Students in Free Enterprise Foundation
1995 Project of the Year, National Association of Management and Technical
 Assistance Centers
1994 Student Project of the Year, American Planning Association (Virginia Chapter)

Professional Service Affiliations

Roanoke Educational Foundation (Board of Directors, 1994-96)
Southwest Virginia Advanced Technology Center (Board of Directors, 1992-1996)
Virginia Community College System Work Force Preparation Task Force (1992)
Governor's Rural Economic Development Task Force (Co-Chair, 1990)
Virginia Economic Bridge Initiative (Management Council, 1990-95)
New River Valley Economic Development Alliance (Board of Directors, 1989-1995)
Southern Industrial Developers Association
Virginia Economic Developers Association
Western Virginia Deming Users Group
Western Virginia Quality Alliance
Consortium For Manufacturing Competitiveness (Oklahoma Representative, 1988-90)

Personal Service Affiliations

Boy Scouts of America (Assistant Scoutmaster, Troop 707, Blue Ridge Council)
New Century Council (1994-96)