CHAPTER V
EMPLOYER-PROVIDED EDUCATION INSTITUTIONALIZED
IN BUSINESS ORGANIZATIONS, 1940-1970

Education became institutionalized in business organizations following World War II. Beginning as random experiments in the decades following the Civil War intended to solve particular workplace problems, employer-provided education became an accepted part of many businesses during the early 1900s. World War I gave impetus to specialized employment and training departments; but, following the war, those departments which survived lost status and influence within their organizations. It was World War II, when the government played a pivotal role in bureaucratizing employment practices, that led to corporate education becoming institutionalized in business organizations. Both personnel activities and workplace education were a part of management’s strategy to regain the power and influence they had lost to labor and the government during the 1930s.

BUSINESS STRATEGIZES TO REGAIN WORKPLACE CONTROL

During the first third of the century, progressive American businessmen had developed a variety of means, other than brute force and crude economic means, to enable them to achieve influence and control over their workplaces. Their control was temporarily defeated in the 1930s with changes in governmental policy and the rise of strong unions. This unprecedented presence of strong opposition to management's power provided new incentives for progressive businesses to control the behavior and influence the attitude of workers (Harris, 1942, p. 159).

Management strategies took various approaches during World War II and the post-war boom which followed. Some businesses adopted a more sophisticated form of collective bargaining that accepted economic benefits for workers in return for reduced pressure on the management function. Others, influenced by the idea of human relations, placed emphasis on management skill to develop high morale in their workplaces. Still other employers concentrated upon employee relations through communications. Business also returned to technology, which continued to be a powerful weapon in their struggle for control. These strategies were all supported by employer-provided education. Regardless of the approach, the common thread running through management thinking was the belief that management must defend its right to manage (Derber, 1970, pp. 469-470).
World War II Brings Economic Recovery and Full Employment

World War II accomplished what the New Deal failed to do for economic recovery. As the United States became involved in World War II, beginning in the spring of 1940, output and productivity expanded; and, the country became a full-employment economy. From 1939 to 1944 the total output of goods and service of the United States rose by more than 50 percent and the volume of manufacturing nearly tripled. The labor force increased by almost 50 percent (Krug, 1945, pp. 1-4).

Rapid labor recovery was difficult as a result of long neglect during the depression. Skills had deteriorated and few new apprentices had been trained in areas of work necessary to defense production. As a result, emergency employment projects which had built up during the depression went through their participant roles in order to recruit individuals with the skills or aptitudes needed for defense work. Those individuals who lacked the requisite skills were called as laborers to be a part of the crews constructing induction centers, airfields, and other works in war centers (Mitchell, 1962, pp. 388-389).

To replace manpower being drawn into the armed forces, not only the unemployed, but retired workers, women and housewives new to the workforce, and blacks migrating North, became part of the war-production workforce. Older workers who had been regarded as a special problem during the depression because of their age, suddenly became useful to industry. Large numbers, especially those with scarce skills, came out of retirement. In addition, women went to work. During the depression years, discrimination against women had increased. Married women, in particular, were often subjected to discriminatory hiring rules which were intended to provide more jobs for men. With World War II, opportunities for women workers improved; and, by September 1941 an estimated 30,000 women were at work in arms and munitions plants alone (Krug, 1945, pp. 1-4; Mitchell, 1962, p. 390). Black workers in the 1930s had been at the bottom of the industrial ladder. If they were employed, it was generally in the most menial and least desirable jobs. As in the case of women, World War II improved the opportunities for blacks, drawing large numbers from the rural South to jobs in industrial areas (Derber, 1970, p. 408).

Business and Government Alliances

In spite of mutual distrust, World War II forced business and government to work more closely together. The War Production Board was organized to keep the economy strong and to mobilize the nation's industry to ensure supplies and materials for the troops. Building up production required their dealing with the problems not just of providing raw materials and the plants and equipment to process them, but also with staffing the plants. The National Defense Advisory Commission and the Office of Production Management (OPM) were charged with mobilizing manpower for defense and war industries and for coordinating activities of agencies dealing with job finding and training. Policies and activities included encouraging the voluntary migration of workers
to defense jobs; promoting and upgrading workers to their maximum skill levels; settling labor/management disputes; improving workers’ housing and other community conditions; encouraging the employment of women in all types of industries; and, facilitating intensive in-plant training (Krug, 1945, pp. 5-7, 17; Cochran, 1957, pp. 172-177).

The subsequent establishment of the War Manpower Commission (1942) separated the mobilization of production from the mobilization of manpower. The War Production Board and the War Manpower Commission established cooperative relationships and retained earlier policies. They worked together to determine which workers in war industries were most essential and requested wage increases they considered necessary to assure an adequate labor supply to essential plants (Krug, 1945, pp. 16-17).

Government and business worked together to accomplish training objectives related to the war effort. In 1940, C. R. Dolley of Socony-Vacuum, a large oil company, was lent to the United States government to head up an industrial training group. His associate director was Walter Dietz of Western Electric. The group, which became known as the Training Within Industry Service, was initially attached to the Advisory Committee of the Council of National Defense, then to the Office of Production Management, and subsequently to the War Manpower Commission. The group developed a series of training programs known as the "J" programs, the first train-the-trainer programs for supervisors (Cochran, 1957, p. 172; Pigors and Myers, 1961; Nadler, 1989, p. 28; Steinmetz, 1976, pp. 1-11).

**Employee Relations During the War**

During World War II, labor unions completed their organization of basic industry which more than doubled their membership. This increased membership presented a tremendous challenge to American businessmen’s power (Green, 1980, p. 174; Lichtenstein, 1982, pp. 233-234). In the 1940s, workers and their unions challenged American businessmen's power and authority, not for the first time, but in an unprecedentedly organized way (Harris, 1942, pp. 95-93).

During the war many management leaders changed their approach, at least publicly, toward the labor movement. They gradually abandoned their long struggle against the collective-bargaining model and decided to accommodate it, or at least to better shape it more to their liking (Derber, 1970, pp. 392-393). Corporations also took advantage of personnel approaches introduced during the war to regain initiative and control they had surrendered to industrial unions during the 1930s and after. Employers not only adopted wartime discipline, but they retained it beyond the war effort. They dramatically increased the number of supervisory personnel, hoping to counter unions’ prerogatives. And, firms stepped up and sustained the pace of production, taking advantage of the war effort to justify the speedup (Lichtenstein, 1982).
Prosperity and Stable Workplaces Following the War

The wartime prosperity resulted in the American population having the expectation of unlimited growth and a full-economy employment. The federal government, which had gained influence during the 1930s, continued to be seen as a prime force in an economy of prosperity. The Employment Act of 1946 committed the federal government to creating research machinery to evaluate the state of the economy in order to ensure high production, high employment, and a growth economy. Although unemployment reached a high of 6.58 percent in 1958, this figure was well below that minimum level of the 1930s (Derber, 1970, 423-424; McQuaid, 1982, pp. 123-132).

The next twenty years, in spite of brief recessions, were years of tremendous growth and high profitability for American business. By the 1970s, a few hundred corporations employing tens or hundreds of thousands of employees existed at the core; and, around them, nearly 12 million small- and medium-sized firms. Business was able to take advantage of any remaining economies of scale and to capture the benefits of the technological revolution which characterized the United States in the second half of the twentieth century (Edwards, 1979, pp. 72-89; Haber, 1966, p. vii).

Post-War Labor Relations Strategies

By 1956, industrial union membership seemed to have reached its limit. Unions were having difficulty finding issues equivalent to the problems in the 1930s which had led to mass organization of industrial workers. They consequently became concerned with non-wage problems, fringe benefits, economic security, organization of the white collar, semi-professional and technical workers (Green, 1980, pp. 222-223; Haber, 1966, p. viii).

In reconverting to peace time production (1945 to 1947), business was faced with formulating and implementing labor relations strategies to win back the territory it had lost to workers and unions prior to and during the war. They continued to utilize technological innovations to regain control, but they also turned to new strategies (Harris, 1942, p. 95). One essential element of this corporate strategy was more sophisticated public relations. From the 1944 to 1946, their spokesman, the National Association of Manufacturers (NAM), abandoned their former strategy of reacting and developed proposals to change public policy toward organized labor to complement what individual corporations were doing to improve relations with their own employees. A new generation of business leaders had come to understand that unions were power structures which could be analyzed, influenced, and incorporated within management's ongoing policies. By 1950, large corporations like General Motors, Ford, U. S. Steel, and Western Electric, had all, in their different ways, accepted the permanency of at least some limited role for unionism within their enterprises (Harris, 1942, pp. 106-111, 154; McQuaid, 1982, pp. 142-143).
New Workplace Participates -- Women and Minorities

World War II opened the door for women and blacks to enter the work force and assume new positions. The nationwide labor shortage in World War II ultimately forced the major corporations to recruit and upgrade workers who had before that time generally been automatically excluded from most sections of the industry (Lichtenstein, 1982, pp. 123-126).

In spite of a large upswing in female employment during World War II, during post-war reconversion the percentage of women in the labor force dropped to pre-war levels. Near the end of the war, the Women's Bureau of the Labor Department had found that 75 percent of the women working in industry expected to remain in the labor force after the war ended. Nevertheless, most of the progressive changes in the status of working women promoted during the war were not sustained. Management hiring practices, government and union policy, and the traditional ideology of domesticity all helped to restore the status quo; female labor-force participation declined to pre-war levels (Green, 1980, pp. 191-192).

Little progress was made until the government intervened. The employment of women and blacks was encouraged when, in 1964, the U. S. Congress voted into law the Economic Opportunity Act. The Act established a Fair Employment Opportunity Commission and prohibited discrimination by employers. In addition, during the late sixties, the growth of the economy, stimulated by spending for the Vietnam War increased demand for both women and black labor (Green, 1980, p. 232).

Management Strategies

Business used existing strategies to manage their workplaces during World War II and the post-war boom which followed. Employers retained many of the strategies they had developed in the past 75 years – applying technology to control production processes and workers, retaining hierarchical, bureaucratic business structures, and considering humanistic management policies to improve industrial relations. Business also continued to concentrate upon what they could accomplish through employer-sponsored education.

Technological Approaches

Technology allowed business increasing levels of control over the activities of production workers. With the electronics revolution of the 1950s and 1960s, which furnished cheap and reliable circuitry for control instruments, technology was developed which enabled management to remove the control of machines from their immediate operators. Machinery could be controlled outside of the direct working mechanism or even outside the immediate work area. Feedback systems had evolved to the point where a computer hierarchy to control work took its place alongside the human hierarchy. Management had the means to remove the operating, initiating and directing of work tasks from the shop floor (Braverman, 1974, pp. 191-212; Edwards, 1979, pp. 120-125).
Technology also impacted the social aspect of the workplace for employees, including how and if they worked with one another. By having the product rather than the workers move around the factory floor, technology dictated that a worker remain at his or her work post rather than moving around the production area. Moreover the limitations on social contact appear to become more severe as plants became more fully automated. In the 1950s workers reported that their automated jobs required much closer and more constant attention, that work stations were further apart, that workers had less chance to vary the work pace, and that the new factory was noisier. Finally, few jobs involved employee interaction through teamwork (Edwards, 1979, pp. 120-125).

The substitution of technical for human direction and pacing of work also changed the relation between foremen and workers. The span of control increased and became more exacting and less personal. American Telephone and Telegraph provided an illustration of this phenomenon. Bell System workers fell into three broad groupings -- telephone operators, craft workers (linemen, installers, and others), and clerical and sales staff. AT & T was able to subject the operators’ duties, their responding to routine incoming calls, to technical control. Between 1958 and 1976, the number of operators per supervisor varied between 14.9 and 18.9, a span of control twice that of their other non-technically controlled workers (Edwards, 1979, p. 119).

Structural and Bureaucratic Control

The general structure of business was not greatly changed by depression or war (Cochran, 1957, p. 159). The workplace, for the most part, remained hierarchical, ruled from the top down with highly structured procedures and policies. Business contended that mass-production, technology-based businesses dictated a hierarchical, bureaucratic structure, an arrangement which gave management a way to control both the hands and the brain of workers. Employers were able to increase their profits when they had greater control over the labor process through this command and control structure (Braverman, 1974, p. 205; Edwards, 1979, pp. vii-ix).

Control of work through machine pacing and deskillng continued, and at lower-levels, such as clerical occupations, expanded. When technical control did not prove to constitute an adequate control system for the firm's main industrial labor force, bureaucratic control was combined with technological control. Bureaucratic control involved improving the structured design and management of job systems and rules to ensure the greatest possible worker compliance and productivity. Companies instituted a vast array of formal rules intended not only to specify the actual production tasks that workers would perform but also to ensure general worker compliance with the norms and standards of labor-management systems (Edwards, 1979, p. 9).

In order to make people as consistent, reliable, and efficient as the machines they supported, managers designed systems, procedures and policies that would ensure that all employees conformed to the company way. Through this process, they helped create what William H. Whyte, Jr., in 1956
labeled "the organization man" (Changing the Role of Top Management: Beyond Systems to People, 1995, p. 134). The organization man conformed, not expressing himself contrary to the interests of the organization (Derber, 1970, p. 512). This development, together with the dehumanizing effects of technology created concern about the dehumanizing effects of industrial employment (Goals for Americans, 1963, p. 9).

Management Ideologies

Managers, approaching industrial relations from a sociological perspective began to place greater emphasis upon the human relations aspect of the work process. Contemporary sociological studies looked at the workplace as a social system made up of interrelationships of workplace participants. Managers contended, at least publicly, that increased productivity, higher morale, and satisfactory industrial relations would follow from their better understanding the forces that impacted workers' feelings and behavior (Cohen, 1979, p. 193).

In the business counterattack against organized labor in the mid to late 1940s, management ideology provided inspiration, guidance, and rationale. Business rhetoric tended to describe the workplace as free from tension -- as a place of harmonious relations between employer and employee with both sides accepting their roles and working smoothly together to further the common interests of the enterprise. The firm continued to be spoken of as a 'team' or a 'family' -- not necessarily a body of equals, but a collection of people with common views and purposes, abiding by the agreed rules, content with their place (Harris, 1942, p. 102).

At the same time another metaphor surfaced. Numerous instances existed in the 1940s where companies and their employees were referred to as an army -- one where managers were the top officers, foremen and supervisors, or the noncommissioned officers, and employees, the rank and file. Management believed that in order to be efficient, the only way to manage employees effectively was to follow the same principles of administration as had been proved to work in other similar situations such as the armed forces. Management contended that to have a single source or authority or a single line of command was essential (Harris, 1942, pp. 95-101).

Whenever actual changes in management ideology occurred, they were slow and minimal. The main function of managerial ideologies for business was to rationalize the continued possession of power and autonomy. Rather than institute real change, business normally attempted to make their workplaces look more like the ideal work environment (Harris, 1942, pp. 95-101).

Human Relations -- Pretense or Reality

One of the major academic influences on management thought in the first postwar decade was the human relations ideology of Mayo and his associates at the Harvard Business School which stemmed from the famous Hawthorn studies of the 1920s. Mayo had concluded that the major
source of industrial conflict and malaise was the failure of management to develop requisite skills in building teamwork in industry. By the proper use of communication with informal work groups, management could possibly raise worker morale, enhance productivity, and eliminate labor conflict (Derber, 1970, pp. 476-477).

Regardless of the surface context, the harsh view of American workers in the 1920s was still a strong undertone in the 1940s. Managers in the 1940s generally believed firmly in what Douglas McGregor would later call Theory X, a set of assumptions about the character and motivation of subordinates. In 1960, Douglas M. McGregor published The Human Side of Enterprise describing Theory X and Theory Y as opposing viewpoints of people’s fundamental perceptions of work. Managers saw workers as having to keep discipline to maintain efficiency of the organization. Workers, who were seen as unsatisfactory, unreliable, and refractory agents had to be driven to keep from their inherent tendency to 'soldier' or shirk their duties (Harris, 1942, p. 102).

Management became more interested in human relations in the late 1940s and early 1950s, but during the late 1950s it began to fall into disfavor. A management contention was that a human relations philosophy indicated softness and sentimentally and detracted from a hard-nosed attention to costs, profits, and managerial responsibility (Derber, 1970, pp. 476-477).

**Progressive Man-Management**

Managers remained relatively free to take unilateral action in the personnel field; and, personnel management, in combination with other management strategies, worked to control employees and the workplace. Providing and publicizing labor relations policies, such as those in Table 10, made it easier for business to get workers to do what was required of them and to mobilize and order the human resources of a large modern corporation.
### Table 10. Personnel Programs

<table>
<thead>
<tr>
<th>The Employee Needs</th>
<th>A Personnel Program May Therefore Provide</th>
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<tbody>
<tr>
<td>Adequate, equable wage</td>
<td>Sound wage plan, Classification of salaries, Bonus or profit sharing plan, Payroll records and procedure</td>
</tr>
<tr>
<td>Other financial benefits</td>
<td>Normal hours of work, Vacation leave, Retirement pension, Death benefit, Group life insurance, Dismissal wage</td>
</tr>
<tr>
<td>Steady employment</td>
<td>Standards to ensure proper selection, Protection against abrupt dismissal, Reduction in seasonal employment, Retraining for new job</td>
</tr>
<tr>
<td>Safety and Health</td>
<td>Accident compensation, Safety and first-aid training, Medical examinations, Group hospitalization, Sick leave, Recreational activities</td>
</tr>
<tr>
<td>Chance for Advancement</td>
<td>Definite promotion plan, Service ratings -- performance reports, Training for promotion, Employee thrift plan, Credit union, Advice on personal problems</td>
</tr>
<tr>
<td>Recognition of good work</td>
<td>Suggestion system, Periodic review of personnel, Citations or awards, Promotional opportunities</td>
</tr>
<tr>
<td>Pride in his job</td>
<td>Proper induction of new workers, Good working conditions, Agreeable hours of work, Chance to express workers' ideas, Information about company, Collective bargaining facilities</td>
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Adapted from Beckman, 1944, p. 166

The government played a large role in World War II in bureaucratizing personnel practices. After the war, business continued to pursue their interests through personnel innovations which had flourished during the war. Organizational inertia and the professionalization of personnel administration also contributed toward the institutionalization of bureaucratic personnel practices in peacetime (Baron, Dobbin, and Jennings, 1986, pp. 350-383).

**Employee Training and Education Gain Widespread Acceptance**

Education became increasingly important as workplaces and the accompanying job requirements changed with increasing rapidity. Education, rather than property and gender, became
a basis of rank and a source of authority. The content and quality of an individual's education became a more important determinant of his occupational choice and level (Wilensky, 1966, pp. 35-36).

Workers saw education as qualifying them for higher-paid jobs and prestige. A growing and widespread belief among employees was that education paid off in occupational and income achievement terms and that the high school dropout was doomed to a lower status in the economic system. (Derber, 1970, p. 428).

At the same time, business depended upon education to accomplish their objectives. Employer-sponsored education had the potential to increase workplace conformity, to improve productivity and efficiency, and to improve public image. Education gave management a tool to use to manipulate workers to conform with management's stereotype of the ideal employee -- efficient, disciplined, willing, cheerfully obedient, and loyal (Harris, 1942, p. 159).

Education also became more important as an actual requirement to perform new jobs requiring more knowledge than skill. Drucker predicted (1957) that the impact of automation would not be directly on employment but rather upon the knowledge and qualifications requirement for employees. While fewer workers would be needed on the floor of the push-button factory, an incredibly large number of workers would be required behind the scenes in new, highly skilled jobs as machine builders, machine installers, maintenance workers, controllers of the machinery and of its performance, and as programmers. In addition large numbers of educated workers would be needed in new jobs as designers of machinery, draftsmen, and system engineers. And, large numbers would be needed for new managerial jobs requiring a high ability to think, to analyze, to make decisions, and to assume risks (pp. 26-30).

Jay Forrester of the Sloan School of Management at MIT (1960) echoed Drucker when he contended that, “. . . some 25 percent of the working time of all persons in the corporations should be devoted to their futures roles . . . . Educational programs must become an integral part of corporate life” (Eurich, 1985, p. 47).

Rising Educational Expectations and Attainments

The expansion and availability of conventional schools -- junior colleges, colleges and universities -- were all contributing toward the education of employees. New types of educational institutions, such as two-year colleges, were growing at a rapid pace. In 1947, 480 two-year colleges enrolled about 220,000. In 1969, the Office of Education estimated 886 such institutions had nearly 2 million students; the greatest proportion of this increase in public community colleges. The veterans' educational subsidy, the G.I. Bill, which swelled school enrollments after World War II and the Korean War, further contributed to increases in the average schooling period of workers (Braverman, 1974, pp. 437-438).
Employers raised their definition of the 'undereducated worker'. In the 1940s and 1950s those workers with high school diplomas were well above the labor-market median. During the 1960s many employers raised minimum job qualifications to high school graduation for blue-collar work and at least two years of college for white-collar jobs. This educational shift upward was not seemingly based on any demonstrated superior capability of high school graduates compared with non graduates. Rather, management tended to believe that those who completed high school were more reliable (Berg, 1970, p. 59).

In 1940, 14 per cent of persons twenty-five years and older had completed high school and under 5 per cent had completed college. In 1960, the comparable percentages were 25 and nearly 8, and in 1966, they were 31 and 10. Between 1950 and 1960, the number of persons in the labor force twenty-five years and older, who had completed at least one year of college, rose from 7.5 million to 11.3 million; the number who had completed four or more years rose from 3.8 to 5.8 million (Derber, 1970, p. 428).

By 1970, blue-collar workers had more schooling than service workers and laborers but far less schooling than white-collar workers. About half of all white men in blue-collar jobs had completed high school or have had some college training, as compared with 87 percent of the professional and managerial workers and 79 percent of the clerical and sales workers. Between 1890 and 1950 the number of students attending American colleges and universities increased about seventeen fold (Miller, 1971, p. 64).

**Employers’ Support Traditional Employee Education**

Although employers did not always deem conventional education critical, or even necessary, they frequently supported employees’ efforts to obtain additional schooling. Corporate assistance varied depending upon the industry and the individual company. One survey indicated that virtually all (up to 97.5 percent) of the major corporations offered their employees educational opportunities in colleges of universities (1958), contributing in whole or in part to the students' expenses. The amount of reimbursement seemed to be contingent upon the grades received, high grades receiving greater assistance in many cases (Clark and Sloan, 1958, pp. 14-15). Sixteen of the country’s largest retailers, who were interviewed with regard to financial assistance for employees attending college and university courses in subjects directly related to their work (1962), presented a less supportive picture. Less than 50 per cent (7) replied affirmatively, 19 per cent (3) replied negatively, and the remainder (6) either had no policy or gave assistance only in 'exceptional' cases (Clark and Sloan, 1962, pp. 22-23).
**Employer-Provided Training and Education**

Corporate educational programs underwent rapid development during this period. Although some were just being established, others were undergoing rapid change. Tremendous variance continued to appear in employer-sponsored programs. Not only was there no correlation between particular businesses and industries and their interest in educational programs, variance also appeared between different units in multi-plant organizations (Clark and Sloan, 1962, pp. 17-18).

Corporate educational programs were paced by the large corporations. A study published in 1960 found that, of the 500 largest corporations existing in 1955, from 61.4 to 89 percent carried on some sort of educational programs requiring regular attendance on the part of participating employees (Clark and Sloan, 1958, p. 14). A subsequent study (1962) indicated that 96 percent of the establishments employing 5,000 or more workers maintained such programs (Training of Workers in American Industry, 1962, p. 5).

Following World War II, business contended that training produced ample dividends. Planned training programs for managerial, supervisory, operational, mechanical, technical, pre-induction, supplementary, and upgrading, had reduced production man-hours, had decreased tool and machine damage, had prevented spoilage and loss of materials, had improved safety factors and prevented accidents, and had resulted in better labor relations and decreased labor turnover and absenteeism (Fern, 1945, p. 104).

Legislation also gave business a rationale for providing training. Federal mandates such as the Occupational Safety and Health Act and affirmative action not only dictated specific training for special purposes, but it also dictated nondiscriminatory training.

In the 1940s, the most common types of courses taught within industry were those dealing with safety training, job training, foremanship training, and public-relations training. Of these, job training, safety instruction, and supervisory training were usually given first consideration, with public-relations training later receiving increased attention (Cooper, 1952, pp. 161-162).

In the 1950s and 1960s, the number of companies providing educational opportunities increased as they developed systematic formal and informal instruction for all levels of employees. Corporate education for factory operators, technical and professional personnel, foremen and supervisors, and junior and senior executives grew. There were also new alignments with colleges for this domain. The subject matter of industrial education broadened, encompassing human relations training and technical and professional personnel.

Instruction continued to be offered in the four domains – basic, job skill and knowledge, general, and professional. These areas, though, were not necessarily taught separately. For example, an orientation program for new employees might include a certain amount of subject matter in all four domains; a managerial development program could include human relations; and, technical subjects could include managerial material as well (Clark and Sloan, 1958, pp. 15-16).
BASIC EDUCATION

During World War II and the post-war boom which followed, basic education included welfare or service activities, safety and health education, programs to acclimatize new employees, and employee relations programs. Businesses did not eliminate welfare programs, because of the tendency to disturb labor and the public (Beckman, 1944, p. 275), but they presented similar activities with different labels. Business organizations continued changing their delivery strategies as a result of employee and public objections to the exploitative and paternalistic nature of welfare programs.

Business also discontinued educational programs. These included earlier Americanization programs for immigrants. Although the nation continued to attract foreign immigrants, legal restrictions kept the net figure down to under 400,000 per year. Earlier industrial problems stemming from foreign language and cultural differences were considerably reduced as employers saw no need for education in this area (Derber, 1970, p. 428).

Employee Service Function

The definition of service activities in this period was comparable to that of welfare activities in the late 1800s. The contemporary employee service function was defined as "that phase of personnel management which seeks to aid the employee to secure certain values that are associated with employment, but which are not an obligation of management inherent in the contract of employment. They do not deal directly and immediately with problems of wages, hours, and conditions of work, or with the economy and effectiveness of operations; but they may affect them indirectly" (Davis, 1940, p. 538). The programs, which remained voluntary, were intended to educate employees in relation to the workplace environment. They did not encompass wages, hours, and conditions of work which had become accepted as an integral part of work or had been legislated.

Welfare activities were generally assumed by the service section of the employment department. The service section endeavored to develop and maintain good morale in the operative force through such activities as house organs, suggestion systems, social or athletic activities, plant restaurants, employee housing, pension systems, group insurance, length-of-service bonuses, credit unions, and similar work (Davis, 1941, pp. 42-43).

Business Rationale

From the beginning, welfare capitalism had been an approach to the problem of safeguarding businessmen's power and status in society at large. In the 1940s and after, welfare capitalism or service activities were a control technique among many used by firms, but heir use was not dependent upon particular political views, or business objectives or agendas (Harris, 1942, p. 183).
A common business contention was that employee service activities, when properly carried out, could contribute to employee morale. Business considered good morale to be a requisite for the development and maintenance of loyalty, willing cooperation, interest in work, organizational pride, the willingness to follow through in the face of difficulties, good discipline, a willingness to accept responsibility and to discharge it to the best of ones ability, and the constructive exercise of initiative (Davis, 1940, p. 538; Davis, 1941, pp. 271-272).

**Business Approaches for Carrying Out Service Plan Activities**

The labor relations department had staff responsibility for maintaining morale within an organization. To accomplish this goal, the department sponsored or cooperated with employee organizations in operating a variety of employee services such as credit unions, group insurance plans, recreational programs, and company restaurants. This function also may have advised on the adjustment of serious discipline problems and assisted administrative executives in joint negotiations with employee representatives. The department also conducted educational activities, frequently in cooperation with the training department, in order that the rank and file of the organization of the organization could better understand what management was doing, how it was doing it, how it affected employees' interests, and why (Davis, 1941, pp. 274, 287-289).

Guidelines for these programs included their needing to be value returned to the employer for providing these service activities. The value could be obtained from service activities if a need was felt by a significant number of employees and if the need was sufficient to warrant employer expenditures. The principle was that employees appreciated assistance in obtaining something they want badly, particularly when some sacrifice was involved, but giving employees something for nothing could lower rather than improve morale. From the perspective of the employer, this approach reduced any perception of paternalism. A second guideline was that service activities should be managed by employees themselves instead of by the personnel division. And a third was that, inasmuch as one objective of management was a further integration of employer and employee interests, everyone needed to understand how the benefits derived from the activity were related to the organization’s interests. The company's contribution was not intended to be an indirect payment or entitlement for employees; it was payment for cooperation from its employees. Before any such plan was established, it was recommended that the employees should clearly understand these guidelines (Davis, 1940, pp. 538-539).

**Kinds of Service Activities**

Employee service plans encompassed several classes -- welfare benefits, recreational and social activities, miscellaneous service activities, and special education to build employee morale. The first class were economic benefits. They included various group insurance plans, savings and
investment plans, credit unions, mutual benefit associations, and employee housing or home-ownership plans. These activities provided employees the opportunity to obtain certain economic benefits by cooperating with management (Davis, 1940, pp. 539-546).

The second class were social benefits that gave employees the opportunity to acquire certain psychic value from their association in recreational and social activities such as intramural athletic and entertainment activities and the provision of clubhouses. Recreational activities were classified into two groups based upon participation -- one offering active participation to a large number of employees and the other, no actual participation but an active interest. The International Business Machines Clubhouse reported having sixteen modern bowling alleys where 300 teams composed of 1500 employees bowled weekly throughout the winter. In addition it had facilities for golf, swimming, archery, skeet-shooting, and tennis. The National Cash Register Company gave motion picture shows in its auditorium for its employees; General Motors had boxing tournaments (Davis, 1940, pp. 539-548).

Miscellaneous service activities had some the characteristics of both classes. These included provisions for company restaurants, company stores, legal aid for employees, employee gardens, and vacations with pay for operative employees, which could be classified as either economic or social, depending upon the objectives for the activities (Davis, 1940, p. 548).

The labor relations department had responsibility for maintaining morale. Morale was defined as a mental condition which induced individuals and groups to subordinate willingly their own purposes to a common end, to submit cheerfully to reasonable discipline, to cooperate willingly with their associates, and to give their best efforts without pressure -- sometimes called the spirit of the organization (Davis, 1941, pp. 6, 274). Morale-building, according to business, depended upon a factual demonstration of the proposition that the achievement of personal objectives could only result from the achievement of organizational objectives. General Electric, Servel, and other concerns used an equation in their educational programs to demonstrate this. After the caption *What is a Job?* was an equation: \[ \text{Customer + Product + Management + Capital = Job} \]. The explanation was that one could not omit any of the variables on the left-hand side or there would be no job. The Jewel Tea Company, Goodyear Tire and Rubber Co. and General Mills went a step further and expanded the equation into a simple balance sheet statement for its employees (Davis, 1941, pp. 548-550).

Business contended that no lasting integration of employer and employee interests could occur until employees understood and accepted management’s philosophy -- their objectives, principles, functions, factors, and processes. They also believed that this goal could be accomplished through education or indoctrination. Management textbooks described education and indoctrination as synonymous as both had the purpose of developing a point of view, which required the development or acceptance of a doctrine (Davis, 1941, p. 548).
Safety and Health

During World War II, the hazards of war occurred not only on the battlefront but also in industrial workplaces on the home front. Wartime industrial efforts increased; machinery was overloaded; and, maintenance grew irregular under the pressure for increased production. As a result, fatal accidents in plants and mines took a terrible toll which was often forgotten or minimized with the reports of battlefront casualty reports. In World War II more workers were killed and injured in defense plants than were killed and wounded in all branches of our armed forces. Between 1940 and the war's end, nearly ninety thousand workers were killed on the home front and more than ten million injured (Scranton and Licht, 1986, p. 257).

Following the war, although industry contended safety and accident prevention had been dealt with, the need for an ever-increasing effort to prevent industrial accidents remained. However, industrial accidents in the late 1940s reportedly caused an annual loss of $4,000,000,000 (Cushman and Cushman, 1947, p. 165). In 1948, a peacetime year, accident statistics reflected that 52,000 Americans lost their lives in accidents and 10,000,000 were disabled by such injuries (Cooper, 1952, pp. 90, 185-186).

The work on employee safety and compensation development had originally developed as a result of factory legislation. In progressive organizations these programs had gone beyond legal requirements, because of the considerations of organizational effectiveness and employee morale. They included accident investigations, study and design of devices for accident prevention, development of safety rules and regulations, maintenance of safety and compensation records, and safety education (Davis, 1941, p. 42). Later, in 1970, the new U. S. Occupational Safety and Health Administration mandated safety education and training for workers.

While factory foremen had long been conscious of their responsibility for preventing accidents among their subordinates, safety work was also carried out in offices, stores, and other commercial and mercantile establishments. Management and the public had become increasingly aware of the business responsibility for protecting the health of employees and for preventing injuries to employees (Cooper, 1952, pp. 90-91).

Safety Training Programs

Factors contributing toward accident free work environments, in addition to discipline, concentration, proper planning and preparation, proper rest, suitable tools and equipment, stressed the importance of education -- not just job training, but training and education specifically intended to improve safety (Cushman and Cushman, 1947, pp. 38-39).

Supervisory training recommended that accident-prevention programs be continuous training programs operated on an individual basis. A recommend training program contained the following steps, which were the responsibility of the supervisor: 1) analyze each job to determine skill and
understanding necessary to perform it correctly and safely; 2) spot danger points and call attention to 
them, the worker practicing from the beginning; 3) weave safety habits into total performance habits 
and teach them as part of the job instruction; 4) require proper performance both from the mechanical 
and safety standpoints; and, 5) do not consider the worker as trained unless he has developed all the 
esential skill and acquired the necessary knowledge (Cushman and Cushman, 1947, pp. 34-36). 
This program could be supplemented by posters on bulletin boards and an occasional film (Fern, 
1945, pp. 29-32).

Another effective method for securing employee cooperation in a safety program was that of 
conferences, which forced employees to be actively involved in the training topic. This method 
permitted workers to discuss their safety problems in a series of conferences on accident prevention. 
By forcing employees throughout a conference to think about means of preventing accidents in their 
departments, they would think safety, not just for the short time they spent in a classroom, but also 
after they left training. Sample topics for safety conferences included causes of accidents and kinds of 
accidents. The conferences were conducted by one or more experienced conference leaders, 
employed either in the safety department or in the plant's training department or by the supervisor of 
the employees. The supervisor would have been previously trained by experts within the plant's 

The general consensus (1947) was that the foreman was the key person in employee health 
and accident prevention (Fern, 1945, pp. 29-42). Workers got the instruction and training on the job 
that they needed in order to do their work safely as well as correctly and understandably. Placing 
safety work under the control of someone outside the production or operating department was 
considered illogical by line personnel (Beckman, 1944, pp. 172-173). The role of the training 
director was to help supervisors discharge responsibilities rather than, "take part of their jobs away 
from them" (Cushman and Cushman, 1947, pp. 172-173). Training for supervisors generally 
stressed their responsibility for the safety and health of their workers and how they could assist the 
safety program and the specific or technical facts relating to accident prevention and first aid. 
Discussion topics included the cost of accidents, causes of accidents, precautions to prevent accidents, 
safety equipment and devices, and first-aid kits and treatment (Beckman, 1944, pp. 137-149).

**Employee Health**

Medical sections or departments, maintained by larger organizations and generally supervised 
by their plant physician or a medical supervisor, were concerned with the development and 
maintenance of the physical efficiency of the employees. This area developed in industry as a result of 
the growing realization of the relation between an employee's health and productivity. Its existence 
was also stimulated by labor legislation intended to control accidents and occupational diseases 
(Davis, 1941, p. 42).
Educational Work

The medical department was responsible for maintaining a high level of physical health and efficiency among the organization's operative and executive employees. This department gave physical examinations to applicants and employees, inspected sanitary conditions within the plant, and performed other functions having to do with medical and health supervision (Davis, 1941, p. 274).

In addition to these responsibilities, the medical department carried on health educational work. The purpose of these programs was to teach employees how to take good physical care of themselves and to prevent the common disabilities that cost them time and money and interfered with the work of the organization. In hazardous industries, the medical area may have also trained first-aid crews (pp. 285-287).

Remnants of Paternalism

One of the main employee criticisms of programs in this area had been their paternalism. Larger plants employed the services of nurses to visit the homes of employees absent because of illness. The nurses were instructed not only to assist the sick person but to also be on the alert for cases of malingering. This practice was still in effect in some organizations in the 1950s. Nurses' associations frowned upon the employment of nurses as spotters or spies, feeling that it hindered the professional value of their work (Cooper, 1952, pp. 95-96).

Supervisors were divided upon whether they were justified in visiting the home of a subordinate either to detect a malingeringer or to attempt to correct some home condition in the home life of the employee which might cause him to do a poor job during working hours. Some supervisors believed that any interference with an employee’s home life was inexcusable and smacked of paternalism and that any effort made to correct the living habits of the subordinate should be confined to working hours. Other employers believed it was well within their realm of responsibility to discuss with subordinates, during working hours, any injurious habits of living indulged in by the employee outside of working hours which might possibly interfere with their efficiency on the job. A third group believed that they could go a step farther and should, in fact, visit employees homes in order to correct home living situations which could impact an employee's performance (Cooper, 1952, pp. 95-97).

Inducting New Employees

Orientation programs, which had became common in the twentieth century, were many and varied. The common objective was to give employees an over-all view of the corporation in order that the employee could see how he was a vital part of an organization (Clark and Sloan, 1958, p. 46). Rather than just telling a man he was hired, putting him to work, and leaving it up to him to adjust through his own efforts, more and more companies developed procedures and programs specifically
intended to help a new worker adjust to and become a part of his new working environment (Fern, 1945, pp. 55-56).

As more and more women entered the workforce, orientation programs specifically for women were recommended in order that a woman could learn that, she entered industry as a worker, not as a woman. Training programs included introducing the woman to her environment -- a plant tour and information as to time cards, lockers, lunchrooms, rest rooms, time off, rest periods, sick leave, insurance, war bonds, recreational facilities, and a glossary of terms in common usage (Fern, 1945, pp. 50-52).

**Orientation Procedures and Programs**

More and more companies concerned with the loss of production and turnover took measures to acclimatize new employees to their work environments. The 1944 issue of the Personnel Journal described four types of orientation. ‘Traditional’ programs informed workers about rules, regulations, and policies. ‘More advanced’ orientation programs instructed employees about company history, products, and services rendered employees. ‘Exceptional’ programs, intended to make workers feel that they belonged and that management needed them, explained how each worker contributed to the final product. The ‘most farsighted’ programs provided a permanent channel for presenting future information to employees and influencing their reaction to it (Planty, 1944, pp. 53-55).

**Examples of Programs**

By the late 1950s few establishments of any size were without some kind of orientation program (Clark and Sloan, 1958, pp. 40-41). The personnel office, in the simplest cases, gave employees a short orientation course in company rules, regulations, and procedures. They probably gave him a copy of an employee handbook, which he was expected to read, and a booklet on safety. The new employee was then taken to his supervisor who had responsibility for introducing him to his job and providing training. (Beckman, 1944, p. 174; Cushman and Cushman, 1947, pp. 131-132; Fern, 1945, p. 55). Other programs were more structured. Formal programs had official classroom welcomes including company regulations and safety and security measures. Some programs, where an employee rotated from area to area in order to became acquainted with the various activities of a corporation, could last for months or even years (Clark and Sloan, 1958, pp. 40-41).

One technically-oriented company (1958) reported bringing together all of their newly acquired college graduates, technical and other, to a central location for a week of intensive orientation. The lectures and observations covered a cross section of all of the important operations and the policies and plans of the company -- history of the organization, various products and markets, organizational structure analysis, and outline of future plans and objectives, and the company's employee relations policies such as education, upgrading, and effective communication. Other technical or engineering orientation programs included spending time in specific departments or technical courses in such
topics as report writing and conference leadership. These programs could last for weeks or months (Clark and Sloan, 1958, pp. 41-46).

For newcomers in retail establishments, orientation programs ranged from a few hours to a few days. During this training, store history and organizational policy and regulations were explained. Classroom procedures were interrupted at intervals for tours through the store for observation purposes (Clark and Sloan, 1962, pp. 14-15).

Training Supervisors to Conduct Orientation Training

A supervisor's responsibilities for inducting a newly-employed worker into the organization and the kinds of information which a new employee needed in order to orient himself quickly and easily were topics included in supervisory training. Supervisors attended training and conferences which emphasized the need for them to see things from the new man's view and to understand that new employees were almost always ill-at-ease, whether skilled or unskilled, and had the desire to make good but needed help in doing so. Suggested discussion topics included the supervisor's responsibilities in inducting a newly employed worker into the organization, the kinds of information which would help a new employee orient himself quickly and easily, and the special problems of breaking in young workers (Beckman, 1944, pp. 174-178; Fern, 1945, pp. 55-64).

Communications and Employee Relations -- 'Indoctrinating' Employees’

Business perceived, or at least publicized, the problem of alienation in industry to be workers' attitudes and perceptions rather than any factor business could control. Business contended that workers’ opinions about their jobs needed to be corrected, as did their attitudes toward managerial authority and other public issues. Big business tended to believe that the working class was ignorant, misinformed, or had been misled (Harris, 1942, pp. 186-189).

At the same time, business had come to believe that worker attitudes were controllable. Just as political propagandists functioned to control public opinion, so could industrialists engage psychologists to measure and build industrial opinion and morale. Companies alert to the psychology of public opinion, of propaganda, and of attitude building, attempted to influence favorable employee attitudes. The contention was that it was not enough to improve working conditions, but that workers must continually be kept aware of or sold on what their employers were doing for them (Planty, 1944, pp. 51-52).

In the late 1940s, the business community consequently became involved in the educational tasks of indoctrination and propaganda. Through education and communication, business attempted to make employees, who were performing subdivided and deskilled jobs, aware of their place in the total scheme of company operations and of their contribution to the end product. Firms used bulletin board notices, pamphlets, brief messages in pay envelopes, posters, direct mail to employees’ homes, employee handbooks, magazines, newspapers and films. They also made use of social
gatherings, occasional lectures and addresses to teach workers about the structure of the business enterprise and the workings of the economic (Harris, 1942, pp. 189, 191-193).

WORKPLACE TRAINING AND EDUCATION FOR JOB SKILLS

The long depression of the 1930s had resulted in the depreciation of industrial manpower. Skills had not been maintained and replacements had not been made (Bliss, 1942, pp. 112-113). Consequently, at the outbreak of World War II industry found itself, in many cases, having difficulty providing the necessary training for the flood of new workers entering the plants.

This scarcity of skilled workers required that businesses use every means possible including specialization, upgrading, training, apprenticeship, operations study and the use of women in industry to ensure that optimum wartime production goals be met. Training departments of company personnel divisions carried as much of the training load as possible, particularly in large defense industries. Vestibule training schools, which gave short intensive training courses for semi-skilled machine operators and specialist mechanics, were able to give initial training and bring the trainee up to a fair level of development in a short time (Davis, 1941, pp. 320-321).

To assist in the effort, the federal government sponsored Training Within Industry (TWI), a training program which frequently took over the direction of individual plant training schools. The training programs, developed by the Training Within Industry Service of the War Manpower Commission, were the first train-the-trainer programs for supervisors. Known as the "J" programs, they covered job instruction training, job relations training, job methods training, and job safety training (Beckman, 1944; Cooper, 1952, pp. 140-141; Nadler, 1989, p. 28; Steinmetz, 1976, pp. 1-11).

The military created an educational complex which became a major source of skilled labor for the civilian economy (Clark and Sloan, 1962, p. viii). In the eighteen months between July 1940 and December 1941, some 2,500,000 persons received instruction to prepare them for war work, which took place in 1,200 public vocational and trade schools, in more than 150 colleges and universities, and in 1000 shops set up in public schools. Over 200,000 workers in war contract plants received in-plant training; and, several hundred thousand on Youth Administration and Civilian Conservation rolls completed defense training courses. A Federal Committee of the Department of Labor on Apprenticeship, in cooperation with the Labor Division of the Office of Production Management, organized the apprenticeship features of in-plant training (Mitchell, 1962, p. 390).

Changing Skill Requirements -- Skilled and Semi-Skilled Jobs

During the 1940s and after, a universally accepted idea was that changing industrial and office work conditions required workers with increased training and education (Braverman, 1974,
This perception was undoubtedly true in some instances, but not across the entire spectrum. Many of these workers required only minimal training to become proficient.

Table 11 depicts how the gap between the skilled and semi-skilled worker in terms of training. While semi-skilled jobs could be learned in a number of days or weeks, skilled jobs could require years to master. Studies of assembly line work in a major automobile company (1966) found that learning time for 65 percent of the work force was less than a month (Walker, 1966, p. 299).

<table>
<thead>
<tr>
<th>THE JOB</th>
<th>TIME REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First Training</td>
</tr>
<tr>
<td>Common laborers</td>
<td></td>
</tr>
<tr>
<td>1) Clean bricks</td>
<td>1) 15 minutes</td>
</tr>
<tr>
<td>2) Dig ditches</td>
<td>2) 15 minutes</td>
</tr>
<tr>
<td>3) Clean stills and tanks</td>
<td>3) 1 week to 1 month</td>
</tr>
<tr>
<td>Helpers</td>
<td></td>
</tr>
<tr>
<td>1) Pipe fitters</td>
<td>1) 6 months</td>
</tr>
<tr>
<td>2) Welders</td>
<td>2) 1 month</td>
</tr>
<tr>
<td>3) Machinist</td>
<td>3) 1 to 6 months</td>
</tr>
<tr>
<td>4) Brick mason</td>
<td>4) 3 to 4 weeks</td>
</tr>
<tr>
<td>Mechanics</td>
<td></td>
</tr>
<tr>
<td>1) Bricklayers</td>
<td>All require about four years</td>
</tr>
<tr>
<td>2) Carpenters</td>
<td></td>
</tr>
<tr>
<td>3) Machinists</td>
<td></td>
</tr>
<tr>
<td>4) Pipe fitters</td>
<td></td>
</tr>
<tr>
<td>5) Boilermakers</td>
<td></td>
</tr>
<tr>
<td>Assistant foreman</td>
<td>4 years</td>
</tr>
<tr>
<td>General foreman</td>
<td></td>
</tr>
<tr>
<td>Superintendents</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from *Training for Supervisors in Industry*, Fern, 1945, p. 63

The United States Department of Labor's Occupational Outlook Handbook (1968-1969) described semi-skilled or partially skilled workers as those requiring only brief on-the-job training. The simplest repetitive and routine semi-skilled jobs could be learned in a day and mastered in a few weeks; and, even those jobs requiring a higher degree of skill could be learned in a few months (Braverman, 1974, pp. 430-432; U. S. Department of Labor, 1968-1969, p. 316).

**Office Work Deskilled**

The clerical work force increased from six-tenths of one percent of the total workforce in 1870 to 18 percent of the workforce in 1970 (Quinney, 1986, p. 266). The sheer size of corporations and the accompanying expansion of the need for technical coordination and the demand for greater
controls all pushed firms to increase supervisory and clerical staff (Edwards, 1979, p. 85). Clerical workers became extremely important to the operation of the modern corporation.

To improve productivity and control, businesses subjected office work to the same standardization and control which had been imposed on factory operatives early in the late 1800s and early 1900s (Braverman, 1974, pp. 304-305; Davies, 1982; Green, 1980, p. 255). The work was divided into distinct operations. Next, each operation was examined to find out how it could be done with the least expense of effort and time. Finally, the person with the least skill needed was assigned to each operation. Routines were set and rigidly adhered to so that as soon as one operation was finished, the piece of work was handed to the next person, and so on. The result was deskilling, each task was performed at the lowest level of skill necessary and for the lowest possible rate of pay in practice (Quinney, 1986, pp. 263-264).

**New Category for Service Work**

The quickening pace of industrialization following World War II speeded up the long-time shift in the labor force from production to service. Beginning with the 1950 census, a new category of worker was introduced, the service worker (Braverman, 1974, pp. 435-436). In 1956, the Labor Department reported that for the first time the number of white-collar workers exceeded the number of blue-collar workers (Derber, 1970, p. 427). The number of service workers increased nine times since 1900 and doubled from 4.5 to 9.0 million between 1950 and 1970 (Green, 1980, pp. 225-232). Growing numbers of service workers increased emphasis upon training public service employees.

**Training Issues for Special Groups of Employees**

What was known as the subordinate or secondary labor market expanded after World War II as millions of new workers entered the labor force without skills, job training, or union protection. Jobs in the secondary labor market were not only low paying, dead end jobs, but they also were subject to an extreme division of labor and a high degree of mechanization. Work was highly programmed and high subdivided. Offices, hospitals, computer companies, restaurants, and other service industries drew these workers, who were largely women and nonwhite men with minimal skills and education (Green, 1980, pp. 225-232).

**Women in the Workplace**

During the war, the entry of single and married women into the paid labor force rapidly accelerated. Eight million women became wage earners, and their proportion in the workforce increased from 25 to 36 percent. Encouraged by war propaganda urging them to work in defense plants, women abandoned traditional female jobs. Women, clearly demonstrated their ability to do well jobs operating lathes, servicing aircraft, and falling giant redwoods; and, they found new earning
power in war work, even though their pay was still far below what their male counterparts earned. During World War II, men were paid 40 percent higher wages on the average than traditional female jobs (American Management Association, 1943, pp. 8-10; Green, 1980, pp. 189-190).

When women began enrolling with men in machine shop, aviation, shipbuilding, and ordnance, they were assigned the same work as the men and taught by the same devices. Vocational educators reported that this acceptance on equal terms, without special attention or special favors, helped to prepare women for work. Trainers reported that physical differences did not affect the learning process. What they contended was different were psychological differences, which could make women’s adjustment to the workplace difficult. Suggested differences included women being unacquainted with tools and machines, being unaccustomed to routine or repetitive work, and having to be told what to do all of the time. Supervisors confronted with the necessity for continued adjustment of new women devoted conference training periods to the special problems which women presented, their effect upon a department, and what to do about them. Topics included the adjustment of women, absenteeism, effect of employing women on the safety record of the department, complaints of supervisors against women workers, and behavior problems presented by women on the job (Fern, 1945, pp. 43-53).

Following World War II employment levels for women dropped to pre-war levels, but by 1970 the percentage of women in the labor force had increased again to nearly 37 percent. Listed in numerical order, retail trade, government, manufacturing, and service each employed from 4.9 to 6.0 million women (Cochran, 1957, p. 180). From 1900 to 1960, women held only two to three percent of the jobs in skilled trades, a figure that varied only during World War II. By 1982, however, women had more than doubled their share, holding nearly 6.5 percent of the jobs in the skilled trades (Bureau of Apprenticeship and Training, 1991, p. 21).

**Minorities**

Between 1940 and 1944 over one million blacks moved from the farm to the factory, which gave them an opportunity to demonstrate their ability to perform skilled and semi-skilled jobs in a wide range of industries and plants. Between 1940 and 1960, an estimated migration of over three million blacks from the South occurred, about twice the number migrating between 1910 and 1940 (Report of the National Advisory Commission on Civil Disorders, 1968, p. 239; Weaver, 1946, pp. 78-79).

As the industrial employment of blacks increased, so did the pressure for fair employment practices giving them access to training and education (Derber, 1970, pp. 429-430). Early in the war effort (1940), the need for explicit governmental policies against discrimination in employment and training pressured the Office of Education, which was responsible for much of the defense training, to announce a policy of no discrimination based on race, creed or color in vocational training sponsored
by the Federal government (Weaver, 1946, p. 57). Another act appropriating funds for defense training (1941) reaffirmed this policy. Roosevelt later issued an Executive Order 8801 (June 25, 1941), forbidding discrimination in all areas of employment including vocational and training programs for defense production. While discrimination continued on a wide scale, the seeds had been planted for equal training advantages for minorities in the workplace (Harris, 1942, pp. 390-392).

In the late 1960s, of 247 companies queried, 110 had set up special training programs for blacks and most of the rest were doing something to alter their recruitment programs. Only one company reported a special training program for women (Cohn, 1971, p. 31).

Training New Employees

New employees needed job skills and knowledge particular to the organization. Workers learned these job skills, those not obtained through pre-employment training, in vestibule training, in some isolated training shop, in the plant at work, or in the shop observing an experienced man. Training could be under the responsibility of a full-time trainer, a group leader, a key operator, or the supervisor (Fern, 1945, pp. 56-57). While larger manufacturing plants had their own apprenticeship schools and training departments which carried on a certain amount of vestibule or induction training for new workers, the smaller plants trained new workers under a foreman (Cooper, 1952, pp. 141-142).

Training and supervising employees was standardized through job analysis and job descriptions. Corporations develop detailed, written job descriptions, based upon job classification and analysis, procedures. They specified detailed sets of work criteria laying out the specific tasks to be performed, the specific model numbers of company products to be worked on, and the specific machines and materials to be used. Together with the more general company rules, these job duties directed the actual work to be done (Edwards, 1979, pp. 137-139).

AT&T (1970) trained new customer sales representatives according to a detailed job description, using a programmed instruction course. The course was reported as being so routine that any employee could teach it; and, every part turned out by the system was interchangeable with every other part. The training experience taught a new employee a set of rules and procedures that narrowly prescribed how the work was to be done. The training program was primarily intended to acquaint the new employees with the organizationally imposed requirements of the job. AT&T used the training period to announce the formal rules, to articulate and rehearse the unwritten procedures, and to teach the implicit expectations of the job (Edwards, 1979, pp. 137-138).

On-the-Job Training Developments

The majority of workers in both unskilled and skilled trades continued to learn their jobs through the on-the-job method of training, which could be no more than a worker just picking up the
job by casual observation. Supervisors, at times, carried out this responsibility informally by deputizing other workers to carry out the details of instruction, especially to break-in new employees or to upgrade older workers (Cushman and Cushman, 1947, pp. 44-47). In other instances, it was standardized as a result of train-the-trainer programs for supervisors.

During and following the war there was increased emphasis upon supervisors being competent to carry out on-the-job training regardless of the nature of the work of the organization. In some organizations supervisors who were responsible for training subordinates were trained to be trainers by business training areas. This included analyzing the training required to learn a job and how employees learned during the training process (Fern, 1945, pp. 4-15, 63).

The training process began with job analysis to determine what steps made up the job, what instruction concerning each step must be given, in what order the trainee should be put through these steps, and what method of instruction should be used. A second analysis was then conducted to break down each step into its major parts. These reports included what operations or processes were included in each step, how workers performed each operation, and what they needed to know in order to perform these operations. Supervisors then were taught to arrange instruction according to delivery — getting trainees ready, presenting the idea, trying it out, and testing or inspecting the results (Fern, 1945, pp. 32-34).

To train employees on the job, trainers were frequently taught how people learn. Trainers were presented with the stages an individual went through when learning a job -- the uniformed level, the information level, the appreciation level, the amateur 'doing ability' level, and the expert 'doing ability' level (Cushman and Cushman, 1947, pp. 133-134).

**Four-Step Instruction Method**

Companies continued to use training based on the four-step teaching method developed by Charles R. Allen during World War I. Allen had discovered that there were four essential steps in any mechanical teaching operation -- Preparation, Presentation, Application and Test (Cooper, 1952, pp. 142-146). Table 12 illustrates the four steps of the instructing process, states the purpose to be accomplished in each step, indicates what an instructor should do, and how he can do it.
Table 12. Four-Step Instruction Method

<table>
<thead>
<tr>
<th>STEP</th>
<th>PURPOSE OF STEP</th>
<th>WHAT INSTRUCTOR SHOULD DO</th>
<th>SUGGESTED WAYS OF DOING IT</th>
</tr>
</thead>
</table>
| Step I Preparation | To get learner ready to learn new job | - Put learner at ease  
- Find out what learner already knows about similar work  
- Arouse his interest in learning new job  
- Get learner to understand purpose/significance of job | - Assume friendly, business-like attitude and engage the learner in relevant conversation  
- Question learner about previous experience which relates to new job  
- Explain importance and purpose of job  
- Give informational demonstration if appropriate |
| Step II Presentation | To set a pattern for the learner to follow | - Present each job step and idea to the learner in logical order  
- Explain the technical terms used  
- Instruct learner in safe working practice  
- Help him to understand and visualize the job | - Demonstrate the job step by step, using technical terms correctly and making brief explanations as necessary. Use charts, models, sketches, and diagrams as needed  
- Demonstrate how to avoid injury to self and others and prevent damage to materials, tools, and equipment |
| Step III Application | To provide an opportunity for learner to form correct work habits -- manual and mental | - Put the learner on the job  
- Supervise learner closely  
- Check to see that he follows the pattern  
- “Patch up” instruction, if and when necessary | - Observe the learner’s performance on the job  
- Stop learner and repeat part of step II, if and when necessary  
- Question him to check his understanding of what he is doing |
| Step IV Test | To ascertain if the learner can do the job correctly and if he has adequate knowledge of the related information and technical terms involved in the job | - Put the learner on the job  
- Check all essential points | - Observe the learner do the complete job without help  
- Ask appropriate questions to check his technical knowledge and understanding of the job |

Adapted from Cushman and Cushman, 1947, p. 138

Allen's four step method, or variations based upon it, frequently continued to be recommended as the best method for training, whether the training was conducted by a supervisor or a training department. It was considered to be equally applicable to training shop, office, or store employees, in addition to being used by a supervisor in developing his assistant supervisors (Cooper, 1952, pp. 142-146).
Conference Method

The conference method of training was used by supervisors in industry, in business, in merchandising establishments, and many other types of business organizations, who were delegated or employed to conduct training programs for workers. Conference training was ideal for training employees who had prior experience, such as foremanship training, safety training, advanced salesmanship, or public-relations training. This type of training was not intended to tell employees how to do their jobs but rather to develop, from each group, all of the information gained by the individual members of that group through their years of practical experience. The purpose was to organize this aggregate information and make it available to each member of the group (Cooper, 1952, pp. 148-161).

Trainers divided conferences into two types -- the pure conference and the controlled conference. In the pure conference the group members were usually aware of the problem to be solved and had in their membership most of the information required to reach a solution. The pooling of their combined knowledge was the basis for conclusions. In the controlled conference the leader furnished much of the information or brought in an authority with background information. Some teaching was required in addition to the pooling of information. In either type, the objective of the conference was to have old ideas modified or changed in the light of new developments, new information, new methods, or new policies (Fern, 1945, pp.105-106).

Apprenticeship

Over the years apprenticeship declined and almost disappeared except for a few remaining traditional programs and its revival in nontraditional form. Labor and corporations disputed how apprentice programs should be managed. In some crafts, such as construction, apprenticeship remained in the control of labor. Other craft instruction, that of mechanics, became a part of large companies’ corporation schools.

During the Great Depression few new mechanics were trained. Some companies had discontinued apprentice courses to reduce expenses while others had reduced the number of apprentices. In addition, large numbers of skilled mechanics were unemployed for long periods of time, and their skill depreciated with idleness. Other causes, among them, death, reduced the supply of skilled men. Because of this shortage, with the advent of World War II, a few concerns reopened their apprentice schools. Other training departments who had maintained their apprentice courses did not necessarily expand them. The time required to develop a skilled craftsman was too long to produce enough skilled mechanics to be of much help (Davis, 1941, pp. 320-321).
Standardization of Apprenticeship Programs

With the passage of the Fitzgerald Act (1937), statutory provision was made for the establishment and continuing development of a program of apprenticeship on a nation-wide basis. This act enabled the Secretary of Labor to formulate and to promote labor standards intended to safeguard apprentices and to cooperate with the states in the promotion of such standards. The program is administered through the Bureau of Apprenticeship and Training (BAT) of the Department of Labor. In addition, 30 states established state apprenticeship councils (SAC). Programs meeting BAT and/or SAC standards could be registered and graduates given certificates of completion by the appropriate agencies. Apprenticeship continued and generally expanded where unions flourished (1976); the programs were typically administered by union-management joint apprenticeship committees (JACs) (Hawkins, Prosser, and Wright, 1951, p. 335; Saltzman, Maly, and Hartshorn, 1976, pp. 25-28).

Apprenticeship standards included a minimum of 144 hours of related training per year, specified wage progress, and levels of supervision. Most related training was provided by public schools with designated subjects such as shop mathematics, blueprint reading, and electric theory. The effectiveness of the on-the-job learning phase varied considerably. In small firms with few apprentices it was dependent upon the ability of the journeymen and their willingness to share skills. In larger firms, training professionals helped organize the work situation to increase program effectiveness. Apprenticeship assignments could be structured so that simple tasks were learned first and complex tasks later. Checks could be devised to assure that skills had been mastered (Saltzman, Maly, and Hartshorn, 1976, pp. 25-27).

Ford Motor Company Program

The Ford Motor Company undertook an extensive task analysis of the nine most populated trades. With this analysis as a base, a vestibule school was established, and self-paced learning guides were designed. Apprentices performed each operation on production materials under the guidance of journeymen instructors. The task guide told apprentices what they needed to learn and listed the tools, materials, and equipment to perform the task. The guide also defined when the task was being done correctly, directed apprentices to reference materials, and provided a check sheet on which apprentices could record that they had learned to do each task (Saltzman, Maly, and Hartshorn, 1976, pp. 25-28).

Customer-Service Training for Public-Contact Employees

During World War II, stores and public-service corporations, partly because of labor shortages, paid little attention to the development of good public relations through employee service. The good will of the public toward these organizations consequently deteriorated. Then during the post-war period, public-service organizations and department stores took the lead in training their
employees in methods of public contact intended to produce a favorable impression upon the customer (Cooper, 1952, pp. 165-167).

Offices, stores, banks, and utility corporations provided proper contacting techniques for public-contact employees. Training public-contact employees in the correct methods was based upon what were called the five elements in any employee-customer contact. The elements were: 1) interest shown by the employee in the customer's problems; 2) quality of the information given by the employee to the customer; 3) employee's speech; 4) employee's politeness; and, 5) employee's appearance (Cooper, 1952, pp. 173-181).

This type of training was accomplished by either the company's training department or the immediate supervisor. If the supervisor was asked to participate in a formal training program, he could imitate the shop supervisor who trained his own employees in safe working practices. In this case, the supervisor would lead a series of conferences with his own subordinates in which the subject for discussion would be one of the five elements. The discussion in the conferences would be limited to actual cases in which the employee was depicted as giving good or poor service to the customer. A recommended by-product of the public contact training was a standard practice in methods of contacting the public. This by-product might be in the form of a question-and-answer brochure as discussed in the conferences (Cooper, 1952, pp. 173-181).

Retail/Store Training

Education within retail corporations, which was mostly confined to large establishments, usually taught only the essentials -- sales training and managerial development. For stores concerned with person-to-person selling, sales training covered such routine matters such as operating the cash register, making out sales slips, and general sales-floor procedures. This lesson was followed with instruction in basic selling techniques -- approaching a customer, eliciting interest, inducing a trade-up, overcoming objections, and closing the sale. Follow-up procedures consisted of periodic meetings, at which time department heads met with their sales staffs to improve the standards of performance. Seasoned employees specifically selected for the purpose and known as buddies, sponsors, or training personnel taught specific tasks on the floor (Clark and Sloan, 1962, pp. 14-16).

Self-service store selling consisted of creating a favorable impression of the store in the minds of customers so that they would return. To this end, most chain food-store organizations held meetings. Instead of discussions of sales techniques, matters as cleanliness, courtesy, effective displays were considered. A favorable store image was discussed. Some large chain food-store organizations maintained training stations at centralized centers. New employees report at these centers for orientation and training, the training being mainly for the benefit of potential checkers who computed customers' bills. A number of check-out counters simulated store conditions where trainees
took turns as checkers and customers. This simulation lent a sense of reality to the instruction (Clark and Sloan, 1962, p. 16).

**Corporate Technical Training**

Technically-trained graduates came to business (1958) with the basic knowledge for their profession, but they could not be expected to know all of the details of every specialized industry. Unlike managerial courses, the subject matter varied widely from industry to industry, requiring the employee to master a specialty within a specialty. Specialization of manufacturing processes had proceeded from the first days of manufacturing to the point that technical institutions of higher learner could no longer provide all of the necessary learning for particular workers (Clark and Sloan, 1958, p. 76).

Consequently industry conducted advanced technical education. Courses of instruction offered by corporations to engineers and other technical graduates to prepare them for research and other highly specialized work in specific industries could range from several days to several weeks. This education, superimposed upon the existing educational structure, was adapted by business as a result of the "inevitable consequence of cumulative knowledge and the ceaseless march of minute specialization" (Clark and Sloan, 1958, pp. 77-82).

The Western Electric Company reported an engineering program for new graduates (1957) with quarters consisting of classrooms, conference rooms, and laboratories in three locations -- New York, Chicago, and Winston-Salem, North Carolina. Corporation personnel and instructors from leading universities comprised the teaching staff. International Business Machines (IBM) reported offering a twelve week course to help fill the gap between the demand for graduate engineers and the relatively limited supply (1958). This training, intended to develop technical assistants, was offered to laboratory technicians with a two-year technical diploma or the equivalent in military or industrial experience. Another program, that offered by the Timken Roller Bearing Company, was designed to train high-school graduates in drafting. The program, similar to shop apprenticeship programs, consisted of classroom instruction in mathematics and drafting and a rotation of duties in the engineering department where the supervisor of each group acted as instructor (Clark and Sloan, 1958, pp. 37-39).

Another educational dilemma faced by employees was keeping abreast of technological and scientific developments. While professional societies, technical publications and informal contacts all contributed, employers also reported employing engineering professors from nearby universities to teach classes which employees attended on company time. Another company reported providing a program that combined both company-time and after-hours seminars for engineering personnel (Clark and Sloan, 1958, p. 37).
GENERAL EDUCATION FOR EMPLOYEES

Business generally believed that all employee training should justify itself in terms of dollars-and-cents profit, that there should be very few training programs initiated merely as a form of general personnel activity. Training interventions should provide a solution for a particular problem; if training did not provide the answer, it should not be conducted (Cooper, 1952, pp. 161-162).

This philosophy was born out when, of 206 corporations reporting educational activities of some kind (1958), only 47 indicated having a program in general education. When general education programs were offered, they could be quite expansive and were extremely varied (Clark and Sloan, 1958, p. 83).

International Harvester Company contracted with a leading university to co-operate in the establishment of its program for general education. The university and corporation worked together in developing an off-hour program, determined by the employees. Diverse subject offerings included blueprint reading, foreign languages, economics, and psychology. No tuition was charged (Clark and Sloan, 1958, p. 83). Another employer, General Electric (1956), offered 1,500 separate courses with an enrollment of 32,000 students. Dan River Mills offered 111 separate courses meeting twice a week and generally held on company time. Of the 111 courses offered, 60 were technical, 23 were managerial courses of a general nature, 13 clerical, and 15 academic. Other examples were Sacony Oil Company (1956) which offered 53 technical and general business courses, and Johnson and Johnson (1956) which provided 47 courses related to company products, general business, and cultural interests (Clark and Sloan, 1958, pp. 83-99). Companies also offered isolated courses to employees, the subject matter including such diverse topics as rapid reading, creative thinking, and economics (Clark and Sloan, 1958, pp. 99-117).

PROFESSIONAL EDUCATION FOR CAREER ADVANCEMENT

Unlike the early years, training and education was seen as essential for management. Drucker predicted (1957) that the greatest future educational need was management. He contended that in an automated business, the management skills of yesterday -- intuition, hunch and experience in business enterprise -- the intuitive manager would be obsolete. He further predicted that this educational job would have to be done, to a large extent, in and by business itself, that large companies in particular would become educational institutions (pp. 30-31).

Influence of World War II and the Post-War Boom

When the United States became involved in defense production to support the war effort, skilled management at the supervisory level was a critical requirement to effect and maintain the change-over from civilian to war production. Company top management was probably more concerned with the problem of adequate first-level supervisory personnel than with almost any other
problem. Methods of production called for extraordinarily careful planning, close scheduling of different parts of the factory process, and skillful handling of labor. The pressure of the war effort served to focus attention upon the importance of trained leaders (Bliss, 1942, pp. 113-114).

Between July 1, 1940, and July 1, 1944, approximately two million supervisors employed in war-production industries were trained or upgraded through organized programs known as Job Instruction Training, Job Methods Training, Job Relations Training, Safety Management for Foremen, Foremanship Conferences, and Conference Leader Training courses. This number did not include training programs carried on by war production industries without any connection with a governmental training agency (Fern, 1945, p. 1).

Businesses, independent of government programs, trained men and women in making job analyses, organizing and developing instructional materials, methods of teaching, and managing and supervising instruction and lesson planning. Instructor training courses, which were practical, not theoretical, were normally short and intensive, varying from ten to thirty hours. Training foremen and supervisors, which contributed greatly to the war effort, established this type of training as a part of industrial training (Fern, 1945, p. 1).

In the years after World War II, leaders in industry continued to see the need for accelerated management development programs (Black, 1979, p. 7). The need for trained management increased as industry moved into a period of more complex operational and managerial problems. In 1945, estimates predicted that 75 percent of the postwar products would be made of new materials with new designs, requiring new knowledge and new skills (Cushman and Cushman, 1947, p. ix; Fern, 1945, pp. 1, 105).

During the 1950s, for the first time in many years, foremen or office supervisors found themselves in a position to personally deal directly with their subordinates in all matters pertaining to the work of their departments. Returning responsibilities to foremen and supervisors was described (1952) as the "return of industry to common sense in production" (Cooper, 1952, p. 49). Not only had personnel periodically assumed their responsibilities, but in the late 1930s and in the 1940s, the industrial unions had reduced the foreman's power in the process of strengthening their own. This change came about through contractual clauses covering employment decisions the foreman had previously made (Harris, 1942, pp. 76-77).

In the early 1950s the Hawthorne Study was rediscovered, and supervisors were considered to be key in the work environment. Business viewed the success of organizations as depending largely upon how supervisors and managers carried out their responsibilities (Cooper, 1952, p. v). To get results supervisors needed certain skills and information. Required skills included the ability to manage the shop, improve methods, lead and instruct others, and get out production. Information included knowledge of management policies, reasons for them and their significance, knowledge of the work to be done, and what the supervisor’s responsibility was (Fern, 1945, pp. 104-105).
Training Programs for Supervisors and Foremen

Business expanded their training to improve supervision. Numerous manuals and handbooks were published to prepare the supervisor for these responsibilities (Beckman, 1944; Boyan, 1942; Cooper, 1952; Cushman and Cushman, 1947; Fern, 1945). Various methods used to train supervisors -- meetings, lectures, distributing printed materials, and conferences -- are described in Table 13.

Table 13. Analysis of Methods for Training Supervisors

<table>
<thead>
<tr>
<th>TYPE OF TRAINING</th>
<th>METHODS USED</th>
<th>POSSIBLE ADVANTAGES</th>
<th>POSSIBLE DISADVANTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Meeting</td>
<td>Information or instructions from supervisor&lt;br&gt;Talks by experts</td>
<td>Carries weight of authority&lt;br&gt;Saves time</td>
<td>Misunderstanding&lt;br&gt;Little discussion&lt;br&gt;Little likelihood of opposition&lt;br&gt;No constructive thinking&lt;br&gt;Makes superior accountable&lt;br&gt;Too many topics considered</td>
</tr>
<tr>
<td>Lecture</td>
<td>Outside lecturers with or without discussion</td>
<td>Furnishes reliable information</td>
<td>Same as above&lt;br&gt;May be over heads of listeners&lt;br&gt;Outsiders ignorant of local problems&lt;br&gt;Lack of continuity of not same man</td>
</tr>
<tr>
<td>Printed Matter</td>
<td>Reading of texts or references&lt;br&gt;Correspondence study</td>
<td>Furnishes reliable information&lt;br&gt;Number in group unlimited</td>
<td>Requires great perseverance&lt;br&gt;Few persons absorb or complete it&lt;br&gt;Lacks stimulus of group contacts&lt;br&gt;Lacks interpretation of teacher</td>
</tr>
<tr>
<td>Individual Coaching</td>
<td>Personal instruction by superior</td>
<td>Conveys superior's own ideas&lt;br&gt;Does not involve organizing group&lt;br&gt;Information restricted to pertinent facts</td>
<td>Takes infinite time -- too slow&lt;br&gt;Restricted largely to new skills&lt;br&gt;Superior may be ineffective teacher</td>
</tr>
<tr>
<td>Informal &quot;Conferences&quot;</td>
<td>Group discussion of experience and opinions stimulated by leader</td>
<td>Opportunity for expressing different points of view&lt;br&gt;Active participation develops logical thinking&lt;br&gt;Promotes cooperative effort&lt;br&gt;Sustains interest</td>
<td>Leader may be incompetent to keep discussion moving, prepare precise discussion outlines, and/or keep discussion on track&lt;br&gt;Conference may never get anywhere&lt;br&gt;Leader or others may monopolize&lt;br&gt;Conferences may play on words instead of facts&lt;br&gt;Group restricted as to size and subject matter</td>
</tr>
<tr>
<td>Determinate Discussion</td>
<td>Group discussion carefully directed by leader into specific channels</td>
<td>Same as Informal “Conferences”&lt;br&gt;Leader also has detailed outline as guide&lt;br&gt;Covers more ground&lt;br&gt;Less side tracking&lt;br&gt;Absorption more thorough</td>
<td>Same as for Informal “Conferences” but chances minimized</td>
</tr>
</tbody>
</table>

Adapted from Beckman, 1944, How to Train Supervisors, Manual and Outlines for Determinate Discussion, p. 12.
George Fern, the former Michigan State Director of War Production Worker Training, cited actual topics held for supervisors in several types of industries. The topics included how a supervisor could cooperate with men; how a supervisor could cooperate with other supervisors; giving orders successfully; faults of supervisors in handing men; developing leadership; and planning (Fern, 1945, pp. 136-147).

**Train the Trainer Programs**

The supervisor had to be both a manager and an instructor. Before the supervisor could instruct, he had to be given his own instructions and needed to understand how he and his men fit into the picture. Training responsibilities included increasing the skills of workers, setting up a systematic training plan for new skills and for better work habits, developing understudies, and checking to see that the training was effective (Beckman, 1944, pp. 288-296; Fern, 1945, pp. iv, 148-171).

A great deal of attention was given to training supervisors to be trainers for their employees. Phases of training recommended for supervisors included determining training objectives, job analysis, motion analysis, reducing training plans to writing, teaching men to do operations correctly, advancing a man to higher grades of work as soon as possible, and planning work to expedite training (Davis, 1941, pp. 321-325).

**Training Understudies/Mentoring**

Company education programs frequently included providing instruction in training supervisors to train understudies. This commonly used form of education required a supervisor or manager to assume responsibility for coaching a subordinate to assume a supervisory post (Beckman, 1944, p. 24).

Training an understudy amounted to an informal organizational succession plan. Having a second man available not only enabled the foreman or supervisor to be promoted but also was advantageous in the event of any temporary absence of the supervisor from his department (Cooper, 1952, pp. 125-127).

The Glenn L. Martin Company of Baltimore reported an understudy training program (1962). Each individual of supervisory status assumed responsibility for coaching a subordinate next in authority to assume the supervisory post. The subordinate was then in a position at any time to substitute in the absence of his superior or to replace him should the superior move up in the hierarchical ladder. This program provided motivation not only for the understudy, but also for the supervisor because his chances for promotion were enhanced because of the assurance of continuous succession. The coaching involved various techniques -- delegation of authority, decision making, problem solving, experience in dealing with others, and representing his superior in various meetings. The understudy could also participate in a special training program consisting of formal instruction.
covering subjects relating to company organization, job-planning instruction and assignments, accident prevention, absentee control, labor relations, communications, and human relations. The subjects were taught by company supervisors from various departments (Clark and Sloan, 1962, pp. 35-37).

**Managers and Executives**

Characters that defined executive success in the 1940s included intelligence, experience, originality, receptiveness, teaching ability, personality, knowledge of human behavior, courage, tenacity, and a sense of justice and fair play (Davis, 1940, pp. 32-34). To contribute to managers’ success, not only was higher education becoming a requirement, but companies were also becoming more involved in more extensive training and education for management development.

**Higher Education as a Prerequisite**

Higher education was increasingly required for management positions. A study made by the *Scientific American* of 1,000 executives of the 600 largest corporations (1964) showed that all but 24 percent of these 1,000 executives had college or graduate degrees (Cochran, 1957, p. 211).

The degree to which this education was actually relevant for new managers, however, was dependent upon the organization and, specifically, the executive power structure. From the 1940s on, effective management was conceived to be a clear and efficient power structure with good communication between key members and provisions for decision-making at appropriate proper levels. This formula appeared simple, but the trouble was that there was no single type of big organization. The period in which a corporation became large placed its marks on the organization. In addition, strong executives impressed their personal ideas on their corporate structures. As a result, executives frequently found themselves poorly informed about the detailed workings of their organizations. This resulted in surprisingly little transfer of new ideas generated in business schools or specialized agencies to business situations. Many times the powerful, dominant individuals believed that new educational trends were intellectual fads that would pass. This belief tended to hinder positive new educational trends (Cochran, 1957, pp. 207-208).

**Emphasis upon Human Relations**

Human relations became a part of managerial and supervisory development programs. Elton Mayo's experiments at the Hawthorne Works of the Western Electric Company (1927-1939), which showed the correlation between employees' thoughts and feelings and productivity, were added to by industrial psychologists and training experts and developed into subject matter presented in corporation educational courses on human relations. This research and experimentation revealed to industry how they could put into place factors which had been preached since the beginning of
industrialization (Clark and Sloan, 1958, pp. 60-76). A lag had occurred between the conception of the idea and practice. In the late 1950s the lag was being reduced as the result of the manpower shortage which inspired changes in labor relations. Workers who had gained much in wage demands were insistent upon more nonfinancial satisfactions, and industry which had succeeded in providing at least the minimum necessities of life were devoting more attention to spiritual or less tangible values (Staley, 1952, p. 27).

One such course was that of American Telephone and Telegraph, "Personal Factors in Management." The course was developed for supervisors and covered the causes of human behavior, individual differences, performance and abilities, development through training, employee motivation, individual employee goals, solving the problem of frustration, understanding workers' attitudes, counseling, the importance of group attitudes, communications and leadership authority (Clark and Sloan, 1958, pp. 62-75).

**Business Programs for Management Development**

In the early 1950s many companies undertook to provide more extensive courses in managerial and supervisory development. Larger business organizations, such as General Electric and International Business Machines (IBM), established formal programs modeled on the college campus with integrated eating and sleeping facilities. The General Electric Management Institute was established at Crotonville, New York, in 1956; and, IBM opened the first residential executive-development facility, the IBM Executive School, at Sands Point, New York, in 1957 (Black, 1979, p. 7).

**Examples of Manufacturers’ Programs**

Johnson and Johnson, Brunswick, New Jersey (1955), invested in comfortable and well-equipped classrooms with modern equipment to provide training for supervisors of various levels. Meetings, held on company time, were comparable to a college semester course. They covered managerial and supervisory skills applicable to any business and information specific to Johnson & Johnson (Clark and Sloan, 1958, pp. 48-60).

The Aeronautical Division of the Curtiss-Wright Corporation, Wood-Ridge, New Jersey, offered a program (1958) with two parts -- one for managerial training and the other for supervisory development. This management program was directed to a select group of college graduates and concentrated upon a rigid course of instruction similar to many college curriculums. It consisted of an orientation, machine-shop practice in a vestibule school, related classroom work using college textbooks, and project assignments. Upon completion the men were assigned to specific areas where they were expected to advance faster than the normal rate of progression. The supervisory development program was conducted entirely by college professors on a formal basis. The company contracted with a nearby university which provided college staff to teach classes at the company plant.
Participants were selected by their department managers based upon their potential for advancement. The courses are similar to those required for a college business degree (Clark and Sloan, 1958, pp. 31-33).

The General Shoe Corporation, Nashville, Tennessee (1956), used a combination of company-developed correspondence courses and seminars to train supervisors. The courses -- divided into basic, intermediate, and advanced groups -- consisted of a combination of seminars and correspondence courses with increasing emphasis upon seminars as students advanced. Employees used their own initiative to register for the courses which were offered by the training department (Clark and Sloan, 1958, pp. 29-31).

**Retail Education Programs**

Managerial development in retail-education programs was an extension of salesmanship programs. In the past, this learning had generally been left to chance experience. Retailers indicated that this procedure was too slow, that experience needed to be condensed into a course of instruction and absorbed in a limited time period (Clark and Sloan, 1962, pp. 16-17).

Managerial development programs differed among various companies chiefly in the delivery of subject matter. One chain food-store chain used periodic brochures mailed to store managers to supplement group meetings held in each store. Subjects covered were customer relations, personnel relations, and community relations. Another large department store organization prepared a two-level managerial course for its various independent stores. The basic course was directed to college graduates and selected store personnel who aspired to first-level supervisory or executive positions. The more advanced class was for those who had completed the basic course or had attained the level of at least assistant department manager. The advanced course concentrated on the areas which retailers contended were critical for successful retailing. Another managerial training program was provided on three levels -- junior, middle, and senior. The junior program was for college graduates and others with comparable business experience; the middle program, for applicants external to the company who showed impressive experience and qualifications or internal applicants who had a record of successful assignments; and, the senior program, for candidates with significant managerial experience and superior qualifications (Clark and Sloan, 1962, pp. 16-19).

**THE PRACTICE AND PROFESSION**

The extent to which the area developed was a function of management philosophies and the size and complexity of the personnel problem in the particular organization. As the organization grew and expanded, conditions changed. Personnel problems outgrew the competence of the line executive to handle, or he needed to be relieved of handling them because of the increasing complexity of the work. In addition, both humanistic and economic considerations gave impetus to the personnel function.
The human resource needs that were stimulated by World War II brought recognition to the field (Nadler, 1989, p. 18). In the forties, the personnel executive had to deal with problems that had not existed ten years before. War conditions not only caused more personnel problems than would have been the case under peace time, but most of them required quick solutions because of the urgency of the situation (Davis, 1941, pp. 270-271). In addition, expanding government regulations increased administrative requirements and responsibilities.

The existence of a personnel department was also attributed to management’s realization that industry had social as well as economic obligations. To meet these obligations, or at least give the pretense of meeting them, a personnel department could provide, at least partially, the person-to-person relations characteristic of early, craft workshops. Although small shops still existed where personal relations existed, these conditions were difficult in larger organizations. One of the basic functions of the personnel division was attempting to approximate these personal relations (Davis, 1940, p. 466-467; Derber, 1970, p. 476).

In small organizations, where the whole organization could work under the personal direction and supervision of its chief executive, the contention was (1941) that the organization could probably not afford, but also did not need, a personnel function. Where the organizational structure was simple and personal relations existed among its members, line executives performed these functions (Davis, 1941, p. 270).

**Organization and Function of Personnel/Training Area**

Personnel functions carried various labels -- department of industrial relations, personnel department, or employment or labor management department. Depending upon the size of the organization and how much importance it attached to the personnel function, the staff could range from one clerk to a large staff of interviewers, clerks, and specialists (Beckman, 1944, p. 161).

In a small concern, the personnel department might consist of only an employment manager and a stenographer; many important personnel functions were performed personally by line executives. In a very large concern, a vice-president in charge of public and industrial relations might have charge of a major staff division that was broken down into a number of departments. The organization of the personnel department depended upon the number and complexity of its organizational problems, the size of the organization, as well as on the progressiveness of its administrative executives.

There was not way best way of organizing a personnel department (Davis, 1941, pp. 272-273). A common grouping of functions was employment, medical supervision, labor relations, education and training, personnel research, and personnel records and control. Each of these areas might be represented by a separate department or section within the personnel division. Areas relating to education and training included the medical department, safety, labor relations, and
the training area (Davis, 1941, p.273). Organizational structures differed, larger organizations possibly having a trained executive in charge of each of these areas (Davis, 1941, p. 41).

While the personnel division helped a company to achieve its social responsibilities, the bulk of its work had to do with other responsibilities. These included employment, developing understudies to replace executive personnel, working out lines of promotion, keeping personnel records, and handling transfers. Through its training activities, its function of securing labor, its advice on organization developments, it enabled the concern to expand or contract with the changing volume of business with a minimum loss of effectiveness. In addition, its training and educational programs were intended to contribute to good discipline. Such functions were reported as developing interest and an intelligent exercise of initiative in the work, reducing the amount of friction and politics in the organization, and increasing the willing cooperation given to management (Davis, 1940, pp. 467-468).

**Employee Training and Education as Part of Personnel**

During this period, the training department was generally included within the personnel function. Many industrial training departments were established as the result of the conversion from peace to war production and attendant labor shortages. As they demonstrated their value, they were retained for postwar-conversion training. Training departments provided educational and training services in a variety of areas for all levels of employees -- from operatives to office workers to executives. They developed company schools providing employees formal instruction related to their work, and they operated vestibule schools for training specialists and semi-skilled employees. They also facilitated the operation of plant libraries and the publication of the company papers (Davis, 1941, p. 44).

The education and training section had the problem of increasing the average skill and knowledge of personnel, related to the needs of the organization. It provided an opportunity for self-development which was increasingly considered to be requisite for an employee’s interest in his job and for developing and maintaining morale. This area reduced the time and expense of training new employees and could make a direct contribution to increased economy and effectiveness in specific functions. Training involved the development of satisfactory skill and knowledge with regard to the requirements of a specific craft or job and included the supervision of whatever training methods might be used such as the apprentice system (Davis, 1941, p. 44).

**Training Activities – Line vs. Staff**

Responsibility for training moved between the line and staff functions. Line supervisors had executive responsibility and authority within their departments for production or operation and for the direction and control of the working force. Staff or functional supervisors, who had special technical
knowledge, skill, or ability in some particular field, were not directly responsible for production or operation, but, rather to advise and counsel within their special fields.

Ralph Davis, Professor of Business Organization, Ohio State University, defined (1941) personnel activities as part of a staff function -- one that was investigative, interpretative, informative, advisory, facilitative, and co-ordinative. Further, Davis defined the personnel division as a technical staff function, a technical staff function being one whose performance required highly specialized background, training, and experience (pp. 23-24). Further, personnel usually involved the application of specialized techniques in the solution of certain kinds of problems or in the rendering of special services in order to advise or assist production or line organizational units (Davis, 1941, pp. 25-26).

In small organizations where there was limited need for staff specialists, line supervisors frequently performed staff functions. They hired and fired, kept track of jobs, functioned as their own time clerk, did necessary planning, passed on the quality of work turned out, determined work assignments, and procedures, and broke in new employees. As an organization grew, management would eliminate this function from the foreman's job and establish an employment office with an employment manager in charge (Cushman and Cushman, 1947, pp. 13-14).

There was an ebb and flow to this kind of functional supervision. In periods of rapid and extensive expansion, when the line supervisor became bogged down because of the large number of employees to be broken in on the job, his training responsibilities would be made a delegated duty of a functional supervisor, the training man. Later on, when expansion would end, the training man was no longer needed, but the function of training men did not end. The job of the training man was reabsorbed into the job of the line supervisor (Cushman and Cushman, 1947, pp. 13-14).

Production frequently viewed personnel as an interloper. World War II helped to improve production's view, in some instances, of the work of personnel. One handbook, *Training for Supervision in Industry*, suggested that even though the expansion of personnel functions cost money, that it had proven an efficient way of reducing hidden costs. This training handbook stressed that there should be close supervision between this function and the supervisor in charge of workers, that the employment office could not function properly if supervisors themselves did not clarify job requirements and report on placement results (Fern, 1945, pp. 61-64).

Friction frequently arose between the line and staff functions. This friction was attributed to supervisors, both line and staff, not clearly understanding the nature and scope of their responsibilities. Line supervisors resented interference when they saw staff specialists, who were not responsible for production or operations, as assuming authority over their subordinates. At the same time, resentment and shortsightedness on the part of line supervisors tended to cause them to neutralize or make ineffective the contributions which personnel staff specialists could make. (Cushman and Cushman, 1947, pp. 11-13).
Production Role in Training and Personnel

Personnel management was defined as the work of procuring, developing, and maintaining the human forces of the organization. And, the labor management function of the shop supervisor was considered to be an important phase of it. One position was that the supervisor should be acquainted with the reasons for and the operations involved in the administration of a personnel or industrial relations program. This position would enable the supervisor to develop an appreciation of the importance of maintaining a sound human relations policy and to consider his part in carrying out such a program. The training director was then in proper relation to line supervision -- as a service man helping supervisors to discharge the responsibilities that were a part of their jobs, rather than annoying supervisors by trying to take part of their jobs away from them (Cushman and Cushman, 1947, pp. 172-173).

Another position was that of the industrial supervisor who contended that it was not effective when their responsibilities such as training and hiring were transferred to individuals and areas outside of production. Production felt that foremen or office supervisors had been divested of much of their rightful authority (Cooper, 1952, p. v). As individuals in the production process looked back, they contended that a great many mistakes had been made during World War I in connection with training employees. Old-timers were reported (1947) as having no trouble recalling the tremendous growth of vestibule schools and training departments, often established under employment managers, the predecessor of the industrial relation expert or personnel manager. And, just as soon as the need for high-pressure production began to subside, training departments began to be scrapped. In many businesses, where management considered organized training to be an expensive nuisance, the whole idea of organized training was thrown overboard (Cushman and Cushman, 1947, p. 119).

Practitioners and Professionalization

To support their practice, the American Society of Training Directors (ASTD) was formed on April 2, 1942, at a meeting of the American Petroleum Institute, in New Orleans, Louisiana. Fifteen training directors held their first meeting on January 12, 1943, in Baton Rouge. By 1952, ASTD membership had reached 1,600 with 32 ASTD chapters across the country. In 1964 ASTD changed its name to the American Society for Training and Development (Turning Fifty, 1994, pp. S8-S9).

SUMMARY AND CONCLUSIONS

Employer-provided education, which had begun as random, unsystematic experiments to resolve employee problems in early industrializing workplaces, became integrated into business organizations following World War II. Government emphasis upon training and bureaucratic personnel policies during the war encouraged this development.
As the training function became accepted as an integral part of management, corporate education was standardized and directed more toward general organizational objectives than specific employee problems. For example, service activities, previously known as welfare capitalism, were no longer dependent upon particular business agendas or objectives. Becoming much more inclusive, they were provided to employee populations as a strategy to improve the general morale, as a part of a union contract, or to meet employee expectations. Other programs employers offered such as educational safety programs, were mandated by the governmental legislation.

Workplace training for job skills, even casual on-the-job training became more systematized. Apprenticeship, which had declined in use in the 1930s, generally flourished only where was union participation. Employers’ internal classrooms for job skills and knowledge became more standardized and served a broader employee audience. More inclusive employee education had been mandated by the Federal government when they passed the Equal Opportunity Employment Act in 1964.

World War II also encouraged business programs for management development. Larger, more complex workplaces demanded more management expertise, and business needed well-educated managers capable of incorporating new strategies and protecting business interests.

Although employer-provided education became more generic and inclusive, practitioners could not reach agreement upon what responsibilities their roles should encompass. And, practitioners still may not have understood their primary role in the organization – that of delivering programs contributing toward management objectives. Employee development continued to be secondary to organizational development.