Stone, Katherine. "The Origins of the Job Structure in the Steel Industry." In David Gorden, et al., eds., *Labor Market Segmentation*. Lexington, Mass.: D. C. Heath, 1972.

Williamson, Oliver, Wacter, Michael, and Harris, Jeffrey. "Understanding the Employment Relation: The Analysis of Idiosyncratic Exchange." *Bell Journal of Economics* **6** (Spring 1975):250–280.

Whyte, William F. *The Organization Man*. New York: Simon and Schuster, 1956.

2 The Development of Internal Labor Markets in American Manufacturing Firms

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To paraphrase D. H. Robertson, internal labor markets may be thought of as "islands of conscious power in an ocean of unconscious cooperation [much] like lumps of butter coagulating in a pail of buttermilk."[1] Little is known about the processes by which these lumps of butter were formed. Current theories about internal labor markets often have been tacked onto various historical generalizations without regard for the complexity of underlying causal and temporal sequences. This chapter analyzes the development of internal labor markets in American manufacturing firms from the perspective that their origins are part of a historic shift in the principles of employment. Emphasis is placed on unionization and personnel management as institutions that impelled and reflected the replacement of a market-oriented, arbitrary and impermanent employment system by one that was more bureaucratic, rule-bound, and secure.

The characteristic features of an internal labor market did not gradually take hold in an ever growing number of firms. Instead they were adopted during two periods of crisis for the older system of employment—World War I and the Great Depression. These were periods when the unions gained strength, when personnel managers were influential, and when the state intervened in the labor market. This uneven growth suggests that many firms did not immediately perceive the value of a bureaucratic system of employment. It also suggests that the internal labor market was an adaptation to new social norms of employment, especially those of trade unionism, rather than a simple response to growing organizational complexity.

The Foreman and the Drive System, 1870–1915

America's manufacturing industries underwent dramatic expansion in the late nineteenth and early twentieth centuries. Manufacturing employment nearly doubled between 1880 and 1900, and nearly doubled again between 1900 and 1920. This growth was accompanied by a trend toward larger establishments. New industries such as electrical machinery and motor vehicle manufacturing soon rivaled steel and textiles in establishment size.[2]

Both the scale and speed of manufacturing operations rose markedly after 1880, cutting the time involved in processing each unit of output. Behind the decline in production time was the widespread substitution of power machinery and handling equipment for human labor. Increased speed and volume of production allowed for a persistent reduction in unit costs, which permitted the channeling of internally generated cash flows into the acquisition of other firms that produced inputs or substitutes for the merging firm's products.[3]

The increased size and complexity of the manufacturing firm created numerous administrative difficulties. Until the 1880s most proprietors had been content to leave the management of production to their foremen and highly skilled workers. Where skill mattered, the foreman and his workers often knew more about technical matters than did the firm's owners.[4] But the rapid growth of industry put pressure on this decentralized system of production management. The flow of production was hindered by a lack of coordination between the various departments of a firm. Data on costs were not kept or were gathered irregularly, which made it difficult to compare the performance of various units. Greater coordination was required if production speed was to be increased.[5]

Between 1880 and 1920 the systematic management movement introduced new methods of production management to industry. Most of the movement's members were engineers; discussions of plant administration and cost accounting rarely were found outside of engineering publications during this period. Efficiency engineers introduced various administrative innovations that displaced traditional methods of production management. Early production control systems told the foreman which units to produce, the order in which operations were to be performed, and the method by which these operations were to be carried out. Standardized procedures, cost accounting, and detailed record-keeping facilitated the centralization of decision making. Thus the foreman's technical and administrative duties in production were gradually assumed by engineers and middle managers; the routine aspects of his duties were assigned to clerical personnel. This bureaucratization resulted in a steady increase in the ratio of administrative to production employees.[6]

Efficiency engineers, despite their forays into production management, left relatively untouched the other major area of a foreman's responsibilities, his employees. The overall lack of attention to employment matters in early management literature stemmed from two sources. There was first the engineers' belief that most employment and labor relations problems could be solved by a properly devised incentive wage. Second was the perception that there was nothing notably inefficient about the foreman's traditional employment methods. Robert F. Hoxie's 1914 survey of firms that had systematized their production processes found that they used no more advanced methods of employment management than nonsystematized firms. This prompted Hoxie to criticize the engineers for their "naive ignorance of social science" and indifference to the "human factor." Consequently the development of a bureaucratic system of employment lagged behind the systemization of other spheres of the firm.[7]

In contrast to the varying degrees of control that the foreman exercised over production, his authority in employment matters was more uniform across industries. In most firms the foreman was given free rein to manage the acquisition, payment, and supervision of labor. To the worker, the foreman was a despot—and not often benevolent—who made and interpreted employment policy as he saw fit. There were some checks on the foreman's power, but usually they emanated from the workers he supervised and not from the proprietor.

The foreman's control over employment began literally at factory gates. On mornings when the firm was hiring—a fact advertised by newspaper ads, signs, or word of mouth—a crowd gathered in front of the factory. The foreman stood at the head of the crowd and picked out those workers who appeared suitable or had managed to get near front. At one Philadelphia factory the foreman tossed apples to the throng; if a man caught an apple, he got the job. Foremen could be less arbitrary, hiring their friends or relatives of those already employed. Many relied on ethnic stereotypes to determine who would get a job or which job they would be offered. Workers often resorted to bribing the foreman with whiskey, cigars, or cash to get a job, a practice that one study found to be "exceedingly common" in Ohio's factories.[8]

Assignment to a job was determined in large part by favoritism or prejudice. The foreman often had little interest in or knowledge of an employee's previous work experience. If a newly hired employee proved unsatisfactory, he was easily replaced by someone else. Transfers from one department to another were rare. As one observer noted, "Foreman are apt to assume the attitude that 'if you do not work in my department you cannot work elsewhere,' and will do everything in their power to prevent dissatisfied workmen from being replaced." Intradepartmental promotions occurred, although definite lines for promotion were unheard of before 1910, except on skilled work.[9]

The foreman also had considerable power to determine the wages of the workers he hired. Whether piece- or daywork, the foreman could and did set widely varying rates for different individuals doing the same work. Because labor costs were monitored by management, the foreman had an incentive to hire individuals at the lowest rate possible. It was common practice for a foreman "to beat the applicant down from the wage he states he wishes to the lowest which the interviewer believes he can be induced to accept."[10] Variations in rates across departments were common because each foreman ran his shop autonomously. Employment and wage records were rarely kept before 1900; only the foreman knew with any accuracy how many workers were employed in his department and the rates they received. Foremen jealously guarded wage information, allowing them to play favorites by varying the day rate or assigning favored workers to jobs where piece rates were loose.[11]

A firm's owners expected the foreman to hold labor costs down despite or because of the latitude they gave him in determining rates. This meant paying a wage no greater than the going rate for a particular job. But it also meant striving to keep effort levels up to reduce unit costs. When the going rate rose, effort became the key variable to be manipulated by the foreman.[12]

Foremen relied on a combination of methods to maintain or increase effort levels that were collectively known as the "drive system": close supervision, abuse, profanity, and threats. Informal rules regulating work behavior such as rest periods were arbitrarily and harshly enforced. Workers constantly were urged to move faster and work harder. Sumner Slichter defined the drive system as "the policy of obtaining efficiency not by rewarding merit, not by seeking to interest men in their work . . . but by putting pressure on them to turn out a large output. The dominating note of the drive policy is to inspire the worker with awe and fear of the management, and having developed fear among them, to take advantage of it."[13]

The drive system depended, ultimately, on fear of unemployment to ensure obedience to the foreman. Workers were more submissive when the labor market slackened, and jobs were scarce, as was often the case before World War I. A tight market tended to undermine the foreman's authority, forcing him to rely more heavily on discharges to maintain discipline. The foreman was free to fire anyone he saw fit, and discharges were liberally meted out.[14]

The instability of employment had causes wider than high rates of dismissal. In its cyclical and seasonal forms unemployment regularly touched a large portion of the working class. Between 1854 and 1914 recessions or depressions occurred every three to four years with about twenty-five of these sixty years spent in contraction.[15] In Massachusetts the incidence of unemployment was high even during relatively prosperous periods such as from 1900 to 1906, when at least one out of every five of the state's manufacturing workers experienced some unemployment each year. Even Massachusetts' trade union members, a relatively skilled group, were not immune to job loss. An average of 29 percent of these workers experienced some unemployment each year between 1908 and 1916.[16]

Unemployment filtered widely through the labor force even during good years because of dismissals and seasonal instability. Employment tended to be most stable in those consumer goods industries that produced items unaffected by style changes. But in 1909 even the most stable industry—bread and bakery products—had monthly employment levels that varied by 7 percent. That same year, the industrial average fluctuated by 14 percent over the year, rising to 45 percent in the automobile industry.[17] The seasonal instability of employment perpetuated the drive system. Activity became frenzied during the busy season as firms rushed to fill orders. Capacity utilization rates and employment levels rose by magnitudes rarely encountered today.

However, the existence of widespread unemployment is in itself no indication of the impermanence of the employment relationship. If there had been an understanding between workers and their employers that they would be recalled when needed, periodic unemployment need not have severed the relationship. But few firms made systematic attempts to rehire their workers after layoffs. For example, statistics from a large metal-working plant whose records distinguished between new hires and rehires of workers who had been laid off on account of the depression that began late in 1907 reveal that only 8 percent of all new hires for the following three-year period were rehires of those who had been laid off during the depression. Average industrial rehire rates probably were much lower.[18]

Mechanisms to maintain the employment relationship during downturns also included guaranteed income or employment plans and work-sharing arrangements. Employment guarantee plans were in operation at only fifteen firms by 1920, although work-sharing was more prevalent. However, the bulk of these work-sharing plans were initiated by trade unions in cooperation with unionized employers. Employers in non-union firms maintained that work-sharing was cumbersome and inefficient.[19]

Few workers had anything resembling equity in their jobs. When layoffs came, rare was the employer who ordered his foremen to reduce the work force systematically. Employment security was determined by the same arbitrary criteria as hiring. Bribes were a common means of ensuring job security. In some shops, "everyone has to pay some sort of tribute to his foreman. The tribute is usually in the form of money or service, but there are cases where the tribute is of a nature which cannot be mentioned in an open paper."[20]

Thus, prior to World War I, employment for most manufacturing workers was unstable, unpredictable, and inequitable. The worker's economic success and job satisfaction depended on a highly personal relationship with his foreman. There *was* an implicit system of employment here, although it wasn't bureaucratic. Foremen had many favors available for those whom they befriended or who bought their friendship. Personal ties and loyalty counted for much, although later reformers were horrified by the particularism and brutality that infused the drive system. Yet where employment practices first achieved a semblance of rational organization, stability, and equity, these features were not a managerial innovation but were imposed from below.

The Workers' Response

The institution of trade unions curbed the foreman's arbitrary exercise of prerogatives and gave the skilled worker considerable control over the terms of his employment. The trade union ensured that strict rules and equitable procedures would govern allocative and wage decisions. In hiring, the closed or preferential shop enhanced the demand for union labor and restricted the foreman's discretion. It protected union members against discrimination and guaranteed that a given number of vacancies would be filled by them.[21] In wage determination, the

union's approach entailed the so-called "standard rate" that all members were supposed to receive. This prevented wage inequities as well as the use of individualized compensation systems that could weaken the union. To prevent foremen from paying different rates for similar work, some unions demanded that rates be listed in a book to be made available to them.[22]

Rules regulating manning levels and working hours were intended to stabilize the demand for union labor. When cyclical unemployment threatened, the unions attempted to mitigate its impact through work-sharing and seniority layoffs, although work sharing was more prevalent. Seniority also was used to prevent favoritism and promote equity in the allocation of promotions. In the Chicago meat-packing industry the cattle butchers devised a detailed system of promotion lines governed by seniority. Foremen strongly opposed this practice, as John R. Commons observed, because they thought "that forced promotion takes a man away from work he does well."[23]

Finally, unions sought to regulate dismissals by requiring that a member be discharged only for just cause.[24] This requirement, together with the closed shop and seniority rules, undermined the fundamental assumption of the drive system—that employment was a relationship of indefinite duration terminable at the employer's will. The unions held the alternative concept that employment was a permanent relationship between the union—a set of workers—and the employer(s)—a set of jobs. The union behaved as if it owned a set of jobs continuing through time. Under the closed shop system only union men could fill these jobs; under work sharing, the jobs could not be dissolved. The unions' employment security mechanisms restricted the employer from turning to the open market to fill vacancies. Moreover the unions' allocative, wage, and dismissal practices embedded the employment relationship in a web of impersonal, equitable rules. These restrictions, when redefined as a permanent, rule-bound relationship between a set of incumbents and a set of jobs in a particular firm, would comprise an internal labor market.[25]

Few options were available to the less skilled, nonunion worker who was dissatisfied with his job or his foreman. Unskilled or nonunion workers had few rights; the only one that was consistently recognized was the right to quit. Thus despite some spectacular strikes, in most instances, the less skilled worker had no alternative in seeking higher wages or better conditions than to terminate employment. Quit rates were high long before World War I. They varied directly with skill;

annual separation rates for unskilled workers often surpassed 200 percent. "Exit" of the unorganized was an alternative to "voice."[26]

The Personnel Management Movement, 1890–1915

Prewar employers were satisfied with the profitability of the decentralized, drive system of employee management. Immigrant labor was abundant, which fostered an attitude of indifference to improving employment methods. But the drive system was not without costs. First, it entailed administrative costs that could be reduced by more bureaucratic methods of coordination. Elements of the engineers' approach to production management—orderly procedures, accurate records, and the departmentalization of routinized functions—came into play in the decade after 1900 when a few firms first established personnel departments. One such department was initiated by Goodyear Tire and Rubber in 1900; it performed essentially clerical functions. Most of these departments had a limited effect on employment policy since they were adjuncts of the firm's production division which was preoccupied with producing maximum output at top speed.[27]

The production manager's short-run, cost-minimizing orientation made him suspicious of any attempt by the personnel department to expand its ambit beyond the clerical. Production officials were wary of changes in employment methods since they led to few immediate or easily measured improvements in output or costs. Consequently critics of the drive system pointed to the personnel manager's low status and powerlessness as barriers to employment reform.

These early critics also pointed to a second set of costs generated by the foreman's crude employment methods: recurring labor unrest and erratic working habits. They worried about the relationship between private employment policies and such societal problems as unemployment and a drift to the political left. These problems had been apparent to nineteenth-century observers as well. What was new was the intensity of the critics' perception that social order was declining, that disorder was linked to private employment practices, and that order could be achieved by more scientific and humane methods of labor administration.

Many of these critics were middle-class professionals—social workers, settlement house workers, academics and ministers—who were applying their expertise toward solving the pressing social problems of the cities and industry. The social justice movement of the time was made up

of individuals who were imbued with a humanitarian ethic of uplift and social reform that made them sympathetic to the immigrant working classes. Yet despite their good intentions their writings and programs contained distinct strains of social control, accommodation, and elitism. The reformers in this group technicalized and rationalized the problems of a rapidly industrializing society. The reforms they devised helped to strengthen existing institutions and steer social change from more radical paths.

Like the engineers, these reformers idealized scientific expertise and rational administration, but they were also deeply concerned with the nonadministrative costs of the drive system. Although they had a limited impact on most firms before World War I, their activities laid the foundations for the proliferation of personnel departments during the war. Industrial welfare work and labor market reform were two branches of the social justice movement that had direct links to wartime developments.

Welfare Work

One strand of welfare work may be traced to the period of labor unrest between 1877 and 1894, when employers sought to turn the loyalty of their skilled workers away from the unions through the use of quasi-pecuniary incentives such as profit-sharing, pension, and stock bonus plans. Another strand was rooted in the belief that the cause of labor unrest, social tension, and a perceived decline in the work ethic was the worker himself—the intemperate, slothful worker or the ignorant, immigrant worker prey to radical nostrums. To countermand this, firms experimented with a variety of programs ranging from thrift clubs, compulsory religion, and citizenship instruction to company housing, outings, magazines, and contests. The idea was to use the firm to recast the worker in a middle-class mold, thus making him sedulous, sober, and loyal.[28]

Many of those engaged in employee welfare work had backgrounds in social work, mission work, and the civic reform and settlement house movements. Welfare work was the private sector analogue to the "search for order" that these professionals then were conducting in American cities. Welfare workers believed that their moralistic paternalism would improve workers' lives and change some of industry's cruder aspects.[29]

Welfare work was viewed skeptically by some who thought that paternalistic attempts to uplift workers had an uncertain effect, at best, on productivity and loyalty. Welfare workers regularly encountered resistance from production managers and foremen who resented intrusions into their domain. To counter this, welfare work increasingly was justified by the engineers' criterion of efficiency. Welfare workers argued that conflicts with line management only could be alleviated by vesting their authority in a separate department free of interference from the line.[30]

By 1910 firms had begun to centralize their welfare programs in a single department with clearly defined responsibilities. A few of these departments were on a par with other major corporate divisions and included employment management responsibilities.[31] But in most firms the welfare department, like the personnel department, remained subordinate to the production division. The welfare worker in these firms, said one observer, "has not yet been assimilated in the operating organization. . . . He deals largely with matters outside the regular routine of industry operations, he has to do primarily with the men while *off* the job rather than *on* the job. . . ." Most welfare departments posed little real threat to the foreman's autonomy since they lacked both independent authority and a mandate to intervene in employment matters. The drive system could and did coexist with extra-work paternalism.[32]

Yet welfare work created a distinctive role. Labor management was becoming the province of the specialist, and labor-related policy was turning into a decision variable subject to rational administration. The creation of welfare departments marked the beginning of efforts to develop employment policies that weren't subordinate to the firm's short-run emphasis on production and that recognized the value of maintaining employee morale and loyalty.

Labor Market Reform

Personnel management was also heavily influenced by the vocational guidance movement. Vocational guidance had developed alongside vocational education to assist in directing the "manually minded" child to his appropriate niche in the labor market.[33] However, some educational and child-labor reformers believed that vocational guidance should be more than just an effort to fit children to particular curricula or jobs. They were concerned about the numerous immigrant youths who entered "blind alley" jobs with unstable futures and little chance for advancement. These reformers thought that schools could be better

used to regulate the youth labor market by having counselors scrutinize the jobs that employers offered school leavers to ensure that decent, stable jobs were provided. Counselors were to encourage employers to educate and train their young workers, rationalize their hiring procedures, and promote from within.[34]

Leading this group was Meyer Bloomfield, a former settlement house worker who had introduced vocational guidance to the Boston schools in 1910. Bloomfield began to have doubts that the schools were "the most suitable agency to attempt the organization of the labor market for the young" and redirected his energies from the schools to industry.[35]

Bloomfield and his supporters thought that personnel managers should be the vehicle for introducing vocational methods to industry, which would ensure that young workers continued to receive guidance and training. They criticized the foreman's crude motivational methods and his failure to assign workers to jobs that matched their interests and abilities. They advocated the establishment of personnel departments that would change allocative practices through such techniques as scientific selection procedures, written job specifications, tryout transfers, and internal promotion plans. These techniques were supposed to decasualize employment and promote stable working habits by providing something akin to a career path for manual workers.[36]

Vocationalists thought that the transfer of allocative authority from foremen to personnel departments also would reduce the amount of youth and adult unemployment. Other labor market reformers in groups such as the American Association for Labor Legislation (AALL) were attracted to the idea of organizing the labor market through voluntary measures as an alternative to national labor exchanges and unemployment insurance. The AALL claimed that personnel departments could permanently reduce unemployment by making hiring more efficient, restricting dismissals, and administering transfers in lieu of layoffs.[37]

Liberal followers of Frederick W. Taylor, the noted efficiency engineer, became ardent advocates of this new approach to unemployment for it held the promise that a major social problem could be solved by the same efficient managerial techniques then being applied to production. This brought the engineers into the ranks of what was to become a national personnel management movement. During the 1914 depression groups formed in major cities to discuss unemployment problems and promote personnel management by local employers. The groups were organized by Bloomfield, the Taylor Society, and AALL members; they became the nucleus of the first national association of personnel managers, founded in 1918.[38]

Thus the disparate strands that would compose the personnel management movement began to come together in the years before America's entry into the war. Efficiency, the engineers' watchword, with its connotations of scientific method and bureaucratic order, infused the welfare work and vocational guidance movements at the same time that employment reform began to be taken seriously by the engineers. The roots of personnel management are to be found not only in the technical imperatives imposed by a firm's increased size and complexity—these created the empty slots in the managerial hierarchy—but also in the backgrounds of those who filled these slots. Personnel managers brought with them the same ideologies and techniques that were being used to solve social problems outside industry. Adapted to an industrial setting, such methods contained an implicit attack on the laissez faire principles governing employment. These professionals argued that industry had an obligation to restrain itself by making the employment relationship less arbitrary and more responsive to the worker's needs and thus to the needs of the firm.[39]

Supporters of personnel management had high hopes that the professionalization of employment management would humanize industry by injecting liberal values into the firm. Those who were most concerned with the issue of professionalism tended to be sympathetic to trade unionism. The precise relation of the personnel manager to the union rarely was specified, but these liberals envisioned some sort of joint control exercised by judicious managers and responsible, accommodative trade unions.[40] Others in the movement were ardent foes of the unions. They saw the need for reform and restraint, not as an opening wedge but as a way to ensure that the unions lost their attractiveness. Change was necessary, but it was always to be unilateral and designed to maintain employer control.[41]

In mitigating the drive system, personnel managers of either persuasion weakened the potential appeal of trade unions by preempting reforms that skilled workers had been pushing for themselves. For less skilled workers, the personnel management movement brought some of the benefits that the trade union had delivered to the more skilled, including allocation by rule, enhanced security, and rudimentary grievance mechanisms.

The Personnel Management Movement during World War I, 1916–1920

Employers were slow in coming to the realization that a change in employment methods could serve as a backfire against unionism. They were put off by the reformers' attitudes toward unions; they were skeptical that a relationship existed between morale and effort; moreover labor was cheap and abundant.

The foreman's drive system allowed firms the flexibility to adjust their forces to shifts in demand. It seemed an effective mode for holding worker expectations and unit costs in line. As Sumner Slichter noted in 1919, the drive system was profitable, given an elastic supply of immigrant labor and a short-run perspective on what he called "the interests of employers as a class." These conditions held until 1916. But the tightening of labor markets induced by the war created a host of problems that made employers more receptive to change.[42]

During the period from 1916 to 1920, unemployment rates fell to their lowest levels since 1890.[43] A serious consequence of tight labor markets was an erosion in effort norms and shop floor discipline. In the past, periodic downturns and a labor surplus, as reflected in high unemployment rates even during good times, could be relied on to maintain worker discipline and make the foreman a credible driver. But with the labor shortage caused by the war, the traditional forces for maintaining effort and discipline were at their weakest. The result was a deterioration in what Slichter called "capital's ability to compel production." When Guy Tripp of Westinghouse addressed a dinner in New York in 1920, he said that "effort" at Westinghouse had fallen off by 20 to 30 percent and that "this transcends in its vital importance all questions of strikes, wages, prices, and everything else."[44]

Despite Tripp's ordering of priorities, strikes were very much on employers' minds during this period. A wave of labor unrest swept the country between 1916 and 1921. The ratio of strikers to all workers during these six years remained constantly at a level achieved later during the more famous strike years of 1934 and 1937. Trade union membership nearly doubled between 1915 and 1920. Public sympathy for organized labor created pressure for change, as did heavy government intervention in the war labor market.[45]

The combination of these problems—labor shortages, slackened effort, and labor unrest—brought about an increase in quit rates, especially among unskilled, unorganized workers. But the wartime rise in quit rates was not unprecedented. Labor turnover in a relatively "good" prewar year such as 1913 approached wartime levels: the unemployment rate was about 35 percent higher, and turnover was 33 percent lower, in 1913 as compared to 1917–18. What made the war period unique was not the level of quits so much as a new concern for the implications of such a separation. These included the higher cost of replacing a separating worker, the belief that a propensity to quit was related to weak effort norms, and the realization that the same conditions that gave rise to quits today might lead to a strike tomorrow.[46]

Despite lingering skepticism about the wisdom of tampering with tradition, a substantial minority of industrial firms rapidly established personnel departments. Between 1915 and 1920 the proportion of large establishments (those employing more than 250 employees) with personnel departments rose from less than 7 to 25 percent.[47] The federal government helped to speed the creation of personnel departments by training hundreds of personnel managers in war emergency courses at various universities. Several war labor agencies promoted personnel management, believing that it would standardize employment conditions in war industries and thus reduce the likelihood of disputes. The government's Emergency Fleet Corporation was directly responsible for the creation of personnel departments in thirty-four private shipyards; the industry had none at the start of the war.[48]

There was, however, a sharp disjuncture between the ideal personnel department envisioned by the movement's proselytizers and the actual practices of most firms. Only a small number of departments, perhaps as few as fifty, approached the ideal. These were fully centralized departments whose mandate was on a par with the firm's other functional divisions. They controlled the formulation of all labor-related policy as well as its execution. An independent, powerful personnel department provided the authority needed to curb recalcitrant line officials and administer programs that required intrafirm coordination. But most personnel departments failed to establish either their independent authority or a full range of the employment policies that were considered "best practice" at the time.

Employment Reforms

The selection and assignment of new employees were the functions most commonly taken over by the new personnel departments. As presumed experts in human relations, personnel managers were supposed to be more skilled in choosing the "right man for the right job." The new procedure was to have foremen requisition workers from the personnel department when needed; they were not allowed to refuse the workers sent to them. Personnel departments were to maintain employment records and keep a list of applicants on file. In theory this was intended to create a reserve to be drawn upon when the demand for labor increased. In some open-shop firms these records were used to screen out union members or other undesirables. Other firms followed a policy of hiring an ethnically diverse group of workers to forestall unionization. The personnel manager, said Arthur H. Young, "is like unto a chef, in charge of the mixture at his particular plant."[49]

Yet the hiring techniques used by most personnel departments were quite rudimentary (see table 2.1). Only about a half kept employment records; maintaining a list of reserve applicants was said to be "seldom practiced." Much of the personnel manager's energy was spent trying to convince foremen of the virtues of centralized selection. Foremen resented their loss of authority. They blamed production problems on the personnel department's poor judgment in selecting workers. Personnel managers complained that they had a harder time selling their selection methods to foremen and line executives than to a firm's top managers.[50]

Personnel managers advocated the use of rules and procedures to curb the foreman's discretion in wage setting and create a more equitable wage structure. The first step in this process was to analyze the duties and requirements of every job in the firm, using methods similar to those employed by vocational guidance counselors. From the job analysis data the personnel department could classify jobs into groups and standardize wages within groups. This allowed the department to identify those rates that were out of line and thus might become a source of disputes. One of the first classification systems was introduced at Ford Motor Company in 1914; it reduced the number of basic wage rates at Ford from sixty-nine to eight.[51]

Several major wartime strikes were held over the issue of wage standardization. The unions involved, most notably the Machinists, demanded that firms standardize occupational nomenclature, classify jobs and standardize wages within classifications. This was intended to reduce the inequities produced by the foreman's rate-setting methods and weaken the individualizing tendency of incentive wage systems, which carried different rates for different workers. Various war labor agencies occasionally supported the unions as part of the government's

Table 2.1
Employment practices in industry, 1918–1923

	All firms[a]	Firms with personnel departments[b]
Records of hiring and firing	18%	50%
Use of selection tests	4	12
Job analysis	12	
Centralized wage determination	—	38
Periodic wage increases	24	
Plant promotion plan	15	
Promotion by formal ratings	12	
Vacancies posted	2	
Transfer plans	23	
Personnel department has a say in dismissals		36

a. Data from Leslie H. Allen, "The Workman's Home," *Transactions of the ASME* **40** (1918):217; Paul F. Gemmill, "Methods of Promoting Industrial Employees," *Industrial Management* **67** (April 1924):240, 243, 246; Roy W. Kelly, *Hiring the Worker* (Boston, 1918), p. 32. These data probably are biased upward by the overrepresentation of advanced firms in the surveys.
b. Data from "A Survey of Personnel Activities of Member Companies," National Association of Corporation Schools (NACS) *Bulletin* 7 (August 1920):347–348; Kelly, *Hiring the Worker*, p. 32.

wide-ranging efforts of head off labor disputes and shortages by standardizing wages both within and across industries and regions.[52]

Employers were wary of standardization since it carried the risk of politicizing wage determination by tying groups of workers together in a common wage band. They also worried that standardization would undermine the incentive effects of the new bonus wage systems. Consequently, despite the volumes written about job analysis and wage standardization, they were less popular in practice than a review of the literature would suggest (table 2.1). Wages often continued to be set by foremen or by time-study engineers.[53]

Personnel managers and employment reformers believed that an internal promotion system was an essential feature of a well-managed firm. There were several reasons for this belief. First, vocationalists in the personnel movement thought that a promotion plan provided an incentive for greater effort and commitment to work. They emphasized the need to provide career motivations for manual workers since this would "put the zest of the struggle and contest into their work, [and] the hope of better things tomorrow to take their minds off the difficulties of today."[54]

Second, these policies were supposed to develop skills systematically and to act as a screening device by which "the competent and persevering employee gradually rises to the top." Third, internal promotion plans were said to depress quits since they rewarded the worker for stability and gave him "hope that efficiency in his present job will win him something better." Finally, these policies were thought to "engender loyalty and esprit de corps" by reducing the foreman's discretion and making promotions subject to definite criteria. Loyalty would increase if workers were assured that good behavior and ability were going to be recognized and rewarded.[55]

A definite plan for promotion and a policy of filling vacancies from within normally accompanied each other. The incentive effects of a promotion plan were weakened if a firm turned to the external labor market to fill vacancies above entry level. And if vacancies *were* filled internally, a definite promotion and transfer plan eased the bureaucratic task of finding appropriate workers. If promotion lines were vague and centralized labor allocation was weak, as was often the case, promotion continued to be somewhat haphazard and hiring from within was only minimally enforced.[56]

Firms were reluctant to implement definite promotion plans because it was believed that they hindered allocative flexibility. A plant manager at a large manufacturing firm said, "Our business is not a progressive series of positions. Any good organization is always adjusting itself to new conditions. Lines of promotion are absurd." Other firms maintained that promotion plans created unrealistic expectations among incumbent workers that a particular job would be theirs when it became vacant—this hampered the firm if and when it preferred to hire someone else to fill the vacancy—and would create "softness" among workers by making advancement appear to be too automatic. Firms that had definite promotion plans considered it wise to view them as guidelines rather than definite commitments. Hence only a very few firms guaranteed their workers an internal hiring policy for vacancies above entry level. Internal promotion plans were not widespread (table 2.1) nor were merit wage increases in lieu of promotion.[57]

The absence or ineffectual enforcement of promotion policies meant that most promotions still were controlled by foremen, even in firms with personnel departments. Only 3 percent of firms surveyed in 1924 allowed their personnel department to have a say in promotions. A personnel manager at one firm complained, "Pull goes a long way in this company. It is a long, slow process trying to introduce modern personnel methods."[58]

Personnel managers made their deepest raids into the foreman's territory when they removed or restricted his discharge privileges. To justify this incursion, foremen were portrayed as autocratic, barbaric, and overworked. As noted, tight labor markets and rising unionization rates made unrestricted dismissals a liability to employers. Foremen at one Philadelphia firm were told, "Your system may have been good once, but it won't go now."[59]

There was tremendous variation in the extent to which personnel departments assumed control of dismissals. At many firms the foreman was only allowed to suspend a worker from his department. The worker could then go to the personnel department for a hearing and possible transfer to another department. For example, Standard Oil issued a list of offenses for which a foreman could dismiss a worker and guaranteed the right of appeal to the personnel department. Some progressive, nonunion firms instituted quasi-judicial arbitration boards to adjudicate disputed dismissals.[60]

The ethos of professional neutrality found practical expression in these new dismissal systems. The personnel department had to be somewhat independent of the rest of the firm if it was to mediate disputes between workers and their supervisors. Only through demonstrated neutrality would workers trust personnel departments to define and protect their rights. As a third force in the firm, the personnel department would function as both management and union. One personnel manager said that his "most important duty is just this one thing: to come in close contact with employees; to gain their confidence; to hear their troubles and adjust them; to be their champion and *at the same time* the guardian of the company's interest."[61]

Foremen and production officials were more resentful of this reform than any other. The unrestricted discharge was considered fundamental for maintaining effort on the shop floor. The fact that a worker could appeal a discharge to the personnel manager was said to undermine the foreman's authority, independence, and prerogative to establish his own rules. Personnel managers, on the other hand, argued that the use of rules and appeals procedures actually would increase the foreman's authority by allowing any conflict over rule enforcement to be deflected to the "higher-ups." But this left open the question of what would happen if the personnel department disagreed with the foreman's

interpretation of the rules, which was precisely what worried critics of personnel management.[62]

A 1918 survey of forty firms found that the personnel department was involved in discharge decisions at about one-third of the firms surveyed, either to approve the foreman's choice (23 percent) or to make the determination independently (13 percent). Limits were imposed on the extent to which the personnel department could overrule the foreman in these firms; most personnel managers lacked the authority to reinstate an employee. Some skeptics claimed that at most firms, "a foreman may still be as petulant as ever about discharging."[63]

Another area where efforts were made to strengthen the bonds between firms and their incumbent employees was the so-called "new welfare work." This included such quasi-pecuniary programs as savings and stock ownership plans, group insurance, pensions, and paid vacations. These welfare programs began to supplant more paternalistic welfare work after the war and increased in popularity during the 1920s.[64]

The new welfare work relied on individual incentives that tied receipt of benefits to a worker's loyalty, punctuality, obedience, and seniority. Most of the programs had an eligibility rule known as the "continuous service provision"; an employee had to be continuously employed for a certain period before he was eligible to receive benefits. This provision was strictly enforced. A worker lost *all* of his accumulated seniority if a break occurred in his service record. This could be caused by a suspension, participation in a strike, or other forms of "disloyal" behavior. By tying hefty benefits to an unbroken service record, these programs increased the cost to the worker of a dismissal or quit. This had the effect of increasing employer control over the work force.[65]

The industries where the new welfare work was most prevalent tended to be those with little or no union organization. Employers said that the programs had a quieting effect on labor disturbances and contributed to loyalty and cooperation. The Studebaker Company introduced a program consisting of paid vacations, pensions, stock ownership, and life insurance in 1919. When a strike occurred in Detroit in 1920, the firm's body painters and trimmers refused to participate for fear they would lose their new benefits.[66] It is wise, however, not to make too much of these plans. Even by the late 1920s the new welfare plans reached no more than about one out of every seven industrial workers. Moreover employer expenditures on these programs were meager by current standards, averaging only 2 percent of compensation in 1927.[67]

Thus in a short span of time a visible minority of firms adopted policies that created a more equitable and secure employment relationship, one that encouraged workers to remain with the firm and be loyal to it. Yet old attitudes and practices continued to exert a strong hold on line officials and employers despite the efforts of personnel managers to convince them of the virtues of an alternative approach. This explains the limited scope of pre-1921 employment reforms; internal labor market arrangements affected only a minority of the work force. Even for this minority these arrangements were unevenly applied, either restricted to particular groups or ineffectually practiced, which suggests a less than wholehearted commitment to an enduring employment relationship. The persistence of the ideology that liberality undermined discipline, that foremen had to be upheld in disputes with workers, that labor was a commodity, made it difficult for personnel managers to expand their influence within or beyond the minority of firms that had initiated personnel departments by 1920.

The 1920s

By mid-1920 it was evident that the beliefs that had stymied the progress of personnel management were growing in intensity. An open-shop movement spread from state to state while the Red Scare hysteria gripped the nation. Hostility to progressive reform movements became widespread. A prominent personnel manager warned that, if labor markets softened, employers would "seize with avidity what they consider a long-deferred opportunity to put the screws down."[68]

A split appeared in the personnel management movement several months before the onset of the depression of 1921–22. A conservative faction launched a broad attack on their more liberal colleagues. It is not now clear whether they were motivated by a genuine disagreement with the liberals or by fears about their own futures. Yet they were able to articulate a program for the movement that was more in tune with the new mood of the times, a mood that was to prevail throughout the 1920s.

The most common charge leveled by the conservatives was that personnel managers had gone too far in blaming the foreman for industry's problems and stripping him of his authority. They argued that foremen should be given greater discretion to allocate, discipline, and discharge workers. The personnel department was to be an auxiliary to the production division rather than an independent department.

Under the new view the personnel manager would no longer be an impartial force for change within the firm; he would have to give up his professional pretensions. The new model of personnel management promised to restore allocational flexibility and preserve authority relations on the shop floor at a time when calls for "a return to business principles" and a reassertion of discipline were on the increase. Those personnel managers who adopted this model presumably would stand the greatest chance of weathering the oncoming depression.[69]

The depression demonstrated that a personnel department was not essential to the maintenance of morale, effort, or stability. Unemployment rates in manufacturing reached over 20 percent in 1921. With this came a decline in strikes and turnover as well as a sharp increase in labor productivity.[70] Many firms cut back or completely eliminated their personnel departments during the depression. Personnel departments that survived the depression lost their status as independent units and were integrated into manufacturing or production divisions. A 1927 study found that "many personnel departments, even those extensively organized, are . . . 'mere fronts.' The term is especially applicable where such departments are definitely ordered not to interfere with 'production' and where the personnel staff is given to understand that its function is not an integral part of the administration."[71]

Although these moves were touted as cost-cutting necessities, they had more to do with the desire to restore discipline. In 1928, after the dust had long settled, one well-placed observer commented that "more personnel men lost their jobs because they were given and used too much authority, because they usurped the prerogatives of line organizations and consequently interfered with normal disciplinary procedure, than because of business depression." Personnel management faded from public attention amid the quiescent labor atmosphere of the 1920s. Although new personnel departments appeared after the depression, the proportion of large firms with these departments grew more slowly than before, rising from 25 percent in 1920 to 34 percent in 1929.[72]

The manufacturing labor market during the 1920s was a buyer's market characterized by stagnant employment and relatively high employment. Manufacturing employment did not grow at all between 1919 and 1929; average annual unemployment rates in manufacturing were higher between 1923 and 1927 than for any other five-year period since 1900, excluding depression years. In twenty out of twenty-six manufacturing industries, average hourly wage rates declined between

1920 and 1929.[73] These factors were responsible for the decade's downward trend in quit rates and, ultimately, for the slow growth of employment reform.[74]

After the depression personnel departments conformed to the new model of decentralized management, which left the foreman with considerable power. Many departments now lacked the requisite authority to ensure compliance with intraplant allocative and pay rules. However, firms with personnel departments still were relatively attractive places to work during the 1920s, unlike firms that did not initiate personnel departments or failed to replace those that had been discontinued during the depression.[75]

The decentralization of authority made it difficult to operate or expand programs that required the foreman's cooperation. The proportion of firms with definite promotion plans remained constant throughout the decade and may have even declined slightly from predepression levels. The foreman's resurgence was most noticeable in the area of hiring and dismissals. Fewer firms reported using centralized selection methods in 1929 than in 1918. The proportion of firms that allowed their personnel departments to have a say, either final or advisory, in discharge decisions also declined between 1918 and 1929. Liberals in the personnel management movement were bitter about this shift away from professionalism and reform. They castigated advocates of the new model for "turning the clock back a considerable distance in regard to the development of centralization in the selection and training of workers as well as in safeguarding discharges, because of their blind zeal in defending what they called the foreman's 'rights.' "[76]

Wage determination again became the foreman's prerogative as individualized incentive wages became more popular during the decade. A 1928 survey of firms belonging to the open-shop National Metal Trades Association found that over 90 percent relied exclusively on either time study or an individual's past performance in setting wage rates. The proportion of manufacturing workers on incentive pay rose from 44 percent in 1922 to 71 percent in 1932. One result of this failure to continue wartime experiments in wage standardization was a widening of occupational wage differentials. An International Labor Organization study noted that skill differentials were wider in the United States than in other industrialized nations. This failure no doubt contributed to the urgency with which organized workers later sought to reform pay structures and attach wages to jobs rather than individuals.[77]

Despite the efforts made to retain workers during the war period, most firms did little to ensure the continuity of employment during the severe depression of 1920 to 1922. A few firms like International Harvester and McElwain Shoe paid dismissal wages and engaged in relief activities such as work sharing. But studies by the AALL and the Russell Sage Foundation turned up few instances of work sharing, systematic transfers, or dismissal compensation, which were termed "unusual relief arrangements." The ten giant firms that made up the Special Conference Committee issued a statement in favor of layoffs based on merit rather than seniority.[78]

However, after the depression there appeared to be a greater adherence to seniority as an allocative criterion. During the brief recession of 1927, 40 percent of the firms surveyed by the Conference Board reported that seniority was a primary factor in determining layoffs. This reflected some concern with the permanence of employment but the commitment to seniority was still weak. Sixty percent of the surveyed firms gave no preference to senior workers when rehiring; 14 percent erased all accumulated seniority if a laid-off worker was rehired. Even in those firms where seniority was a primary factor in layoffs, there were few definite rules as to when it applied. At many firms, seniority only became more important than efficiency or ability after the worker had been with the firm for more than five, and in some cases more than ten or twelve, years. That is, use of seniority as the governing factor in layoffs was itself a seniority benefit.[79]

The shallow commitment to employment security and the decentralization of allocative authority suggest that drive methods still were prevalent. In the automobile industry during the 1920s, the most commonly cited worker grievances were speed-ups, accidents, and foreman favoritism. In the mid-1920s, when the Lynds visited open-shop Muncie, Indiana, they found considerable pessimism among the town's working-class families concerning employment security and promotional opportunities.[80]

There were, however, some firms that adopted advanced employment methods during the 1920s. C. Canby Balderston studied a group of firms with "pioneer" personnel programs, by which he meant the existence of a personnel department, the provision of benefits to enhance employee security, formal wage plans, and mechanisms for maintaining the stability of employment.[81]

Balderston's "pioneer" firms shared certain characteristics. During its earlier phase of expansion, personnel management had shown no obvious relation to particular industrial characteristics such as technological sophistication or profitability. Most wartime industries had been buoyed by high demand and hefty cost-plus contracts. But during the 1920s some industries declined (e.g., metals, textiles, railroads) while more dynamic "new" industries (e.g., chemical and petroleum products, electrical manufacturing, public utilities) took the lead as a result of age, innovation, and mergers. Balderston's firms came from industries that had relatively high and stable profit levels during the 1920s, which assured these firms of sufficient funds to finance personnel programs.[82]

This is not to say that profitability, which was correlated with technical sophistication, was the only determinative factor. Balderston's "pioneer" firms also came from industries with relatively stable seasonal and cyclical product demand. The assurance of a continuous derived demand for labor permitted a firm to plan employment policies based on a presumption of a continuing employment relationship. Firms in industries that weren't on the technological cutting edge but were relatively stable, such as producers of consumer nondurables, were the decade's heaviest users of various employment stabilization techniques and constituted the tiny group that guaranteed their employees a minimum amount of employment or pay per year.[83] Medium-sized, "low" technology but stable firms like Dennison Manufacturing or Hills Brothers offered their workers greater job security than firms that were larger and possessed more market power but were less stable (e.g., auto producers) or less profitable (e.g., textile mills), or both (e.g., steel mills).[84]

Finally, Balderston's firms showed a tendency to be privately owned or tightly controlled. This allowed such well-known liberal employers as Henry S. Dennison, Morris Leeds, and William P. Hapgood to gain the control necessary to exercise their preferences over those of more conservative managers and shareholders.[85]

Most manufacturing workers continued to be employed by firms that had neither unions nor personnel departments. Autocratic methods, arbitrary practices, and employment insecurity persisted at these firms, encouraged by the waning of wartime sense of urgency. On the other hand, about 20 percent of the industrial work force in 1929 was employed by firms that had personnel departments.[86] Some of these firms expanded the liberal employment policies introduced during the war. In others there was evidence that the commitment to reform had weakened, and this slowed the pace of change. Yet an extrapolation of

employment policy trends would have been a misleading guide to future developments.

The Great Depression, 1930-1940

Industrial employment policy faced an uncertain future during the first three years of the Great Depression. Some personnel departments and many welfare programs were discontinued as they became a drain on scarce corporate funds or lost their incentive value. Although large firms did not initially cut wage rates as they had done during the 1920–1922 depression, smaller firms were quick to make cuts. By 1932 major firms like General Motors and U.S. Steel had joined in. Early in 1933 William H. Leiserson gloomily wrote that the "depression has undone fifteen years or so of good personnel work," and he warned that "labor is going to look to legislation and not to personnel management for a solution of the unemployment problem."[87]

Contrary to Leiserson's pessimism, the passage of the National Industrial Recovery Act in 1933 set in motion a chain of events that stimulated employment reform. The primary effect of the act was to rejuvenate the labor movement, which in turn led firms to establish new or beefed-up personnel departments. These firms, including many pioneers of the 1920s, viewed the threat posed by unionism as temporary and manageable. They thought that the impulse to unionize could be squelched if they moved quickly to adopt or expand policies that promoted employment security and equity. One employer noted in 1934 that "any labor disturbance or unrest" at his firm would be viewed as evidence that management had failed to "fairly administer the company's labor policies."[88]

Most of the employment reforms introduced after 1933 were not new. The trend during the 1920s toward weak personnel departments and a decentralization of allocative authority was reversed as foremen came under the authority of strengthened personnel departments. The ten giant corporations that made up the Special Conference Committee reported in 1933 that the threat of unionization had "added measurably to the task of personnel managers and to the importance of their functions within organizations."[89] As during World War I, there was a dramatic expansion between 1933 and 1935 in the proportion of industrial firms with personnel departments, especially large firms (table 2.2).

Table 2.2
Employment practices in industry, 1929–1963

	1929	1935–36	1939–40	1946–48	1957–63
Personnel department (*L*)	34%	46%		61%	
1,000–5,000 employees	39	62		73	
5,000+	55	81		88	
Employee rulebooks (*A*)		13	16%	30	43% (*L*)
Centralized selection (*A*)	32	40	42	63	
Dismissal					
Foreman sole authority (*A*)		55		24	
Personnel department involved (*A*)		7	17	31	
(*L*)	24	38			
Allocation, wages					
Centralized transfer and promotion (*L*)	24	42			
Promotion charts (*A*)			19	25	28
Merit rating		11	16	31	
	14 (*L*)	16 (*L*)			42 (*L*)
Job evaluation (*A*)				55	72
Seniority, security					
Layoff results in loss of all seniority (*A*)	14	3		1	0.5 (*L*)
Seniority rules (*A*)			50	83	
Pension plans (*A*)	2	6	8	23	73 (*L*)
Number of wage or employment guarantee plans	35	79	138	196	

Sources: 1929: National Industrial Conference board (NICB), *Layoff and Its Prevention* (New York, 1930), p. 56; NICB, *Industrial Relations Programs in Small Plants* (New York, 1929), pp. 16, 20; NICB, *Industrial Relations: Administration of Policies and Programs* (New York, 1931), p. 54. 1935: NICB, *What Employers Are Doing for Employees* (New York, 1936), pp. 23, 33, 60–65; NICB, *Personnel Practices Governing Factory and Office Administration* (New York, 1937), pp. 73–74, 78. 1940: NICB, "Personnel Policies in Factory and Office," Studies in Personnel Policy No. 23 (1940), p. 15; NICB, "Personnel Activities in American Business," Studies in Personnel Policy No. 20 (1940), pp. 19–29. 1946–48: NICB, "Personnel Practices in Factory and Office," Studies in Personnel Policy No. 88 (1948), p. 13; NICB, "Personnel Activities in American Business (Revised)," Studies in Personnel Policy No. 86 (1947), pp. 16–36; W. D. Scott, R. C. Clothier, and W. R. Spriegel, *Personnel Management* (New York, 1961), p. 583. 1957–63: ibid., p. 583; NICB, "Personnel Practices in Factory and Office: Manufacturing," Studies in Personnel Policy No. 194 (1964), pp. 17, 52, 111, 139. Data on employment guarantee plans from Office of War Mobilization and Reconversion and Office of Temporary Controls, *Guaranteed Wages: Report to the President by the Advisory Board* (Washington, 1947), p. 293.
Note: *A* = proportion of all industrial firms; *L* = proportion of industrial firms with more than 250 employees.

To bolster employee morale and prevent any union or Labor Board charges of discrimination, allocative procedures were centralized and made subject to definite rules and procedures.[90] Especially at larger firms the personnel department became more heavily involved in hiring and dismissal decisions (table 2.2). Firms now were more careful to ensure due process in dismissal decisions and promulgated rules that detailed the offenses for which an employee might be dismissed. Large firms rushed to adopt foremen-training programs in which supervisors were instructed to improve relations on the shop floor so as to prevent "misunderstandings or incipient unrest."[91]

Promotion methods changed as the authority to promote and transfer employees again was vested in the personnel department. Merit ratings plans for wage earners, which substituted definite criteria for foremen discretion, also were more widely implemented between 1933 and 1935, especially in larger firms (table 2.2). But despite the centralization and formalization of allocative procedures, promotion plans and job ladders remained uncommon before 1940. In part, this was due to continued opposition by line managers to any loss of allocative authority and flexibility. A 1939 study found that definite promotion lines were "rare" and that firms "which usually have been the leaders in industrial relations progress have not been greatly concerned with this aspect of employment management relations."[92]

Wage determination was another area where foremen were being displaced by personnel managers. Several large firms adopted job classification and evaluation plans during the early 1930s.[93] These methods, which first had been tried during the war, were intended to enhance a firm's control over its rate structure and to improve employee relations. By attaching wage rates to jobs rather than individuals, wage determination was made more impersonal, fair and consistent. But job evaluation methods did not become widespread until after 1935, when the threat of unionization had grown more intense.

A major change in personnel policies during the mid-1930s as compared to preceding periods was the greater emphasis placed on providing employment security to the work force. Job security was the primary concern of workers after 1933, according to Roper polls taken during the depression.[94] By 1935 a minority of large firms had instituted various measures to regulate force reductions and assure their workers of future job security. First, there was renewed interest among managers in the employment stabilization techniques espoused by labor market reformers before World War I.[95] Second, a growing, albeit small, number of firms went so far as to guarantee annual employment or income to their employees (table 2.2). Third, nearly 70 percent of a group of nonunion firms surveyed in 1938 reported that seniority was a factor in layoff decisions.[96] Also workers were being allowed to retain their seniority for longer periods after layoff (table 2.2), which suggested a greater commitment to an enduring employment relationship.

But in the area of job security, as in other realms of employment, the expansion of internal labor market arrangements after 1930 was too little or too late to stem wholly the tide of unionization. For example, a majority of firms in 1935 still allowed their foremen to exercise full discretion in deciding layoffs (table 2.2). A magazine reported that at U.S. Steel in 1936, "steel workers are filled with stories of money lost to foremen after a better-than-usual pay, and never repaid or expected, of minor officials who have small business interests that the men patronize in the hope of getting more work."[97] Some firms used the depression as an excuse to get rid of long-service workers, yet fewer than 10 percent of all firms in 1935 provided dismissal compensation or pensions to ease the pain of job loss.[98]

Unions also grew more concerned with security after 1930; the proportion of union contracts that contained layoff provisions rose sharply after 1930.[99] However, unions typically pressed for more rigid protections than even liberal employers were willing to grant. In 1938, 69 percent of a group of unionized firms made seniority the governing criterion for layoffs; the corresponding figure for nonunion firms was only 8 percent.[100] The rigidity of the unions' approach to security and other allocative procedures reflected a pervasive distrust of management, which the expansion of personnel departments was unable to overcome. Too many firms moved too slowly during the 1920s and early 1930s in the direction that personnel managers had charted during the war. As one prominent personnel manager said in 1937,

> A number of so-called progressive employers have, over a period of twenty years, voluntarily done a great many of these things to their lasting credit. The point is that not enough employers have done it. It has often been said that it is 10 percent that are holding back. It may be more accurate to say it has been the 10 percent who have taken the lead. It would not take very long to list the companies in these United States who have taken the lead and have been progressive and done these things voluntarily, and done them in the hope and expectation that we would have been saved some of these developments of the past three years.[101]

At some small or slow-moving firms unionization preceded the establishment of a personnel department. In these firms unions were directly responsible for a rapid expansion of rules, job security measures, and centralized and standardized allocative procedures.[102] But a more common sequence after 1935 was the organization of firms that already had implemented a range of internal labor market policies. Here, unions adapted to the status quo and used preexisting employment policies as a basis for formulating new demands, sometimes even incorporating the firm's personnel procedures into the collective agreement. Developments in the unionized sector were closely watched and often imitated by firms that had managed to avoid unionization.

The spread of labor unions had similar effects on these three types of firms. It elevated the status and authority of the personnel function within the firm and accelerated the implementation of internal labor market arrangements after 1935 (table 2.2). Moreover various innovations now emanated from the unionized sector, especially those related to job security. Unions became the moving force behind the adoption of employment or wage guarantee plans; two-thirds of the firms offering these plans in 1946 were unionized.[103] Nonunion firms responded to union initiatives in the area of job security by formalizing their force reduction procedures—the proportion of nonunion firms with definite layoff procedures rose from 50 percent in 1938 to 80 percent in 1950—and by promising in employee handbooks that they would provide continuous and stable employment.[104] Other union-sector innovations included job posting and job ladders, which ensured that firms filled vacancies from within, as well as a wider use of seniority criteria in layoff, rehire, wage, and promotion decisions.[105]

Managers in unionized firms were not opposed to seniority per se. As noted, some firms had used it as an allocative criterion before the depression. But few had adopted the rigid and all-encompassing approach that the unions now demanded. Production officials were concerned that this would hinder the firm's flexibility in making allocative and pay decisions. These conflicts were muted, however, by the fact that unions now were firmly entrenched and by the reascendance of the personnel department. Some personnel managers willingly implemented seniority systems which, by centralizing allocative authority, had the effect of increasing their own power.

Nonunion firms also relied more heavily on seniority after 1935. A 1950 study of seniority reported that "a great number of nonunionized firms are constantly aware of the implied threat of unionization if their personnel procedures are mishandled. Their attitude is that as long as they keep their house in order, they can remain unorganized."[106] In addition to threat effects the existence of a personnel department made it more likely that a nonunion firm would rely on seniority rules.[107]

But seniority was more narrowly and flexibly applied in nonunion firms, where there was a stronger emphasis on merit and managerial discretion in allocative and pay decisions. At the end of World War II, for example, a unionized firm was roughly seven times more likely to promote strictly on the basis of seniority than a nonunion firm.[108] However, allocative, pay, and disciplinary procedures in nonunion firms were only slightly less rule bound than those in the union sector. Formalized procedures promoted supervisorial fairness and consistency, thus serving as a partial substitute for the grievance procedures found almost exclusively in unionized firms.[109]

Innovations in employment policy did not flow exclusively from the labor movement after 1935. Techniques such as job evaluation and merit rating grew popular partly as a result of attempts by personnel departments to maintain their control of employment decisions (table 2.2). The prospect of having to bargain over wage differentials led a large number of firms to preemptively adopt job evaluation plans after 1935. According to one study, half of the plans in existence in 1946 had been implemented before 1941, usually without any union involvement in the process of creating a rational rate structure.[110] Similarly, the post-1935 growth of merit rating for pay and allocative decisions was due to management's realization that it needed a defensible alternative to any union demands for making those decisions strictly on the basis of seniority.[111]

Other managerial innovations arose out of competition with unions to secure employee loyalty. Pecuniary welfare or "fringe" benefits for wage earners expanded rapidly between 1935 and 1940, including paid vacations, health and life insurance, and pension plans. The proportion of firms with these programs in 1940 far exceeded levels reached a decade earlier.[112] Managements in unionized firms refused to bargain over these benefits and stressed to employees that unions had not been responsible for them. Also steady growth occurred in the number of firms with programs designed to prevent grievances and improve "human relations," including foreman training and sophisticated attitude surveys.[113]

There was even a resurgence of pre-1921 conceptions of personnel management as an impartial, third force within the firm. Although it was difficult for personnel managers to maintain this image in unionized firms, other personnel managers had more leeway to present themselves as guarantors of the employee's rights. Personnel managers again became interested in establishing a professional basis for personnel management. It was hoped that this would reinforce claims to neutrality and bolster the personnel manager's status within the managerial hierarchy.[114]

Government and World War II

Government intervention in the labor market was an important spur to the growth of internal labor markets after 1935. The government's unprecedented attempts to ensure labor peace and economic security diffused throughout industry new legal and social standards of fairness in employment. The wage stabilization and labor mobilization programs of World War II required that firms adopt particular employment techniques to facilitate the operation of a "command" labor market. Also the large number of regulations that emanated from Washington furthered an existing trend toward centralization and formalization in employment.

Government's major prewar impact on personnel policies was felt through the National Labor Relations Board. Although it was bitterly attacked by employers, the Board forced slow-moving firms to pay close attention to their employment practices lest they be accused of discriminating against union members.[115] This led to a wider use of uniform procedures in such areas as hiring, transfer, promotion, layoff, and dismissal. Personnel departments sharply reduced the foreman's authority to make employment decisions, both by a "reign of rules" and by directly taking over many of his allocative and disciplinary duties.

The centralization of the personnel function was further increased by the complex rules and data-gathering requirements of unemployment insurance, social security, and minimum wage laws. For example, the Fair Labor Standards Act (FLSA) demanded that records be kept of the wages and hours of every employee in a firm.[116] These laws also had direct effects on employment policy. The merit-rating provisions of most state unemployment insurance laws and the overtime provisions of the FLSA provided an incentive for firms to stabilize employment and eliminate erratic production patterns.[117] Also social security pensions and unemployment insurance established economywide standards for protection against the insecurity of old age and unemployment. Rather than eliminating demands that employers provide this security, these laws stimulated private pension and dismissal compensation plans that raised an employee above what now was viewed as a minimum level of protection.[118]

The advent of war brought another round of expansion in the number of personnel departments, especially at small and medium-sized firms (table 2.2). These departments provided the expertise needed to cope with an array of government regulations and a stronger labor movement. Also hiring and dismissal became more centralized as these firms sought to conserve scarce war labor (table 2.2).

Government closely regulated allocative and wage payment practices in the private sector during the war. The War Manpower Commission (WMC) was created in 1942 to ensure sufficient labor both for defense production and the armed services.[119] Shortly after its inception the WMC asked all firms to prepare "manning table" plans to aid in the orderly deployment of labor. The plans outlined a firm's current and projected manpower needs. Firms were asked to describe their jobs and workers using occupational nomenclature taken from the recently compiled Dictionary of Occupational Titles. This forced firms that had not already done so to conduct extensive job analyses and create a rational structure of well-defined but rigid job titles. Also the plans showed training paths and promotion sequences between jobs, which aided in justifying deferments for skilled workers and trainees.[120]

The wage stabilization program administered by the War Labor Board (WLB) similarly encouraged the use of a variety of internal labor market techniques. The WLB, like its predecessor during World War I, pushed for the implementation of job and wage classification plans to reduce the likelihood of wage disputes and ease the administrative task of stabilizing wages. Job evaluation plans sometimes were required by the WLB to justify wage increases intended to remove inequities, although now the plans had to be jointly devised with union representatives.[121] This hastened the practice of tying rates to job titles through evaluation plans (table 2.2). Also, because the WLB permitted wage increases for merit, promotion, or seniority, firms were stimulated to implement formal policies to support rate increase requests for these purposes.[122] As a result merit rating and internal promotion plans, as well as seniority-based wage systems, spread throughout industry after 1940. Finally, many firms expanded their provision of welfare benefits

because of the WLB's practice of allowing them to adopt without its approval various "fringe" benefits.[123]

Wages, promotion, and tenure were more tightly woven together as a result of the activities of personnel managers, unions, and government. Job evaluation was linked to promotion ladders, and seniority principles were strengthened. Job and relative wage structures grew more rigid, and tenure became a more important determinant of a worker's status.

The process of internal labor market formation had its most deleterious effects on the once-powerful foreman, who now was subjected to sharp pressures from above and below. Personnel managers crimped his prerogatives and took responsibilities away from him. Union grievance procedures and collective bargaining stripped him of much of his authority. Foremen now were described as management's "forgotten" or "marginal" men, terms that symbolized industry's forty year transition from the drive system to the modern internal labor market.[124]

Conclusion

A number of major points arise from this discussion of the historical development of employment practices in the manufacturing sector. The first concerns the erratic growth of internal labor markets in large firms, most of which occurred during World War I and the Great Depression. The bulk of the innovations that comprise the internal labor market were available by 1915, if not earlier, yet large firms implemented them only when prodded by various external forces, chiefly the threat of unionization. Labor scarcity and government regulation of the labor market also were forces that initiated internal labor market growth during World War I and reinforced established practices during World War II.

Growth patterns were different at small and medium-sized firms, most of which did not adopt internal labor market arrangements until after the mid-1930s. These firms acted only when the threat of unionization was more immediate, although some did not reform their employment practices until after they had been organized. Also these firms waited until clear patterns and standards had been established, either by their larger counterparts during the 1930s or by pressure from the government during World War II.

The erratic growth of the internal labor market reflected the low priority that most manufacturing firms assigned to employment policy. Closely related to this was the dominant position in management held by a firm's production division. Line managers, some of whom began their careers as foremen, perceived the policies proposed by personnel departments as bureaucratic encumbrances and a threat to operating efficiency. Fair treatment, job protection, and assurances of a continuing employment relationship were considered inessential to the firm's mission, which was to produce at least cost with the greatest degree of allocative flexibility. For line managers, a worker either "cut the mustard" or he was out; incentive plans were sufficient to motivate even the least-skilled worker. Unions could best be dealt with by a combination of decent pay, careful hiring, and coercion, if needed.

With the benefit of hindsight vision we may observe that internal labor market arrangements often enhanced efficiency through their effect on turnover and morale, or by stimulating programs to upgrade the work force. But this result wasn't always apparent to a firm's top managers, who were skeptical that these arrangements would lower costs. These attitudes, and the close relationship between external forces and internal labor market growth, suggest that efficiency incentives alone were not strong or obvious enough to generate an internal labor market.

Personnel managers can be viewed as having acted as mere conduits for union threat effects. Some of their ideas were borrowed from the unions; their influence often rested on the imminence of labor unrest. But industrial relations might have taken a very different course had this managerial specialty never developed.

The initiation of a personnel function introduced competition within management between the goals of the personnel department and the objectives of other divisions of a firm. For example, this forced managements to become more aware of the trade-off between allocative flexibility and employee morale, a choice that was less apparent when employment policy was subordinated to production objectives. Personnel management's roots, its semiprofessional status, and its ties to outside institutions like the universities all added legitimacy to the new values that it introduced into management. In the absence of these effects internal labor markets would have developed more slowly, and unions would have been both more popular and adversarial.

Unions, by giving voice to employee preferences for a more secure and equitable employment relationship, were a major force behind the proliferation of internal labor markets. The periods of rapid internal labor market growth were closely associated with increases in union bargaining power. This suggests that workers had strong interests in

the characteristic bureaucratic features of the internal labor market. Often it was the unions, not management, that pushed most strongly for job ladders, wage classification, allocative rules, and guarantees of an enduring employment relationship.

But the differences between unions and management were not unbridgeable because of extensive imitation and adaptation by both sides. In establishing internal labor markets in large firms, personnel managers borrowed from the employment procedures and principles that the unions had built up since 1870. When unions organized a firm after 1930, they often had to adapt to the status quo established by personnel managers. Moreover unions and personnel managers had a mutual interest in restraining foremen, in order and stability, and in the use of formal rules and procedures. Although most managements never fully accepted unions, they came to accept many of their goals; this provided a basis for accommodation and bargaining over the shape of the internal labor market in unionized firms.

Until some years after World War II nonunion firms closely watched and imitated developments in the unionized sector. Personnel management in these firms has proved that it can provide and maintain the same internal labor market and other protections as are found in the unionized sector. But, if union threat effects rather than efficiency incentives were a prime force behind the adoption of internal labor market practices, would not continued dwindling of the labor movement produce a return to older and less benign employment practices?

There are several reasons to believe that this would not occur. First, as in the past, the government continues to set standards that create or reinforce internal labor markets. Hiring and allocative practices are highly regulated; wage minima, pensions, and workplace safety are protected; social welfare and macroeconomic policies provide incentives for stable, long-term employment relations; and there even is an emerging judicial line of thought that questions an employer's right to dismiss an employee at will.[125] The number of government rules has increased markedly during the last twenty years and, as during the 1935 to 1945 period, this has centralized and rigidified the administration of employment.[126]

Second, past experience and the continued professionalization of management have changed managerial attitudes and beliefs. Most managements no longer are skeptical that internal labor market practices reduce costs. In part, this is due to a wider acceptance of the motivational tenets of personnel management—that a satisfied, fairly treated, and secure work force is more productive. Also firms have adapted their training and administrative techniques to the existence of an internal labor market; these sunk costs prevent any quick transition to an alternative employment system.

Third, workers today have higher standards than their forbears, because the achievements of previous generations have created "customs" or shared norms of fair treatment in employment. Workers now expect a "good" employer to treat them equitably, make allocative decisions by rule, reward seniority, and provide advancement opportunities and employment security.[127] These expectations put pressure on government to maintain its activities and impose constraints on employer personnel policies. Firms without internal labor markets, in an economy where most firms have them, must recruit their workers from strata of the labor force that have lower expectations and standards. These tend to be the least-skilled and least-educated workers, such as immigrants.

Thus the practices that comprise the internal labor market have become what Robert Solow has termed "social conventions or principles of appropriate behavior."[128] They are embedded in a structure of law, managerial principles, and employee expectations. Unions played a most important role in creating this structure, but they no longer are the main prop to its continued existence. Yet there are sectors of industry where the unions did not reach, where the law is not enforced, and where managements and workers have low expectations of each other. Here one is unlikely to find internal labor market arrangements.

Notes

The author would like to acknowledge the comments of Daniel J. B. Mitchell, Paul Osterman, and Lloyd Ulman. The UCLA Institute of Industrial Relations provided financial support for this research.

1. D. H. Robertson, *Control of Industry* quoted in R. H. Coase, "The Nature of the Firm" *Economica* **4** (1937):388.

2. Stanley Lebergott, *Manpower in Economic Growth: The American Record Since 1800* (New York, 1964), p. 510; Daniel Nelson, *Managers and Workers: Origins of the New Factory System in the United States, 1880–1920* (Madison, 1975), pp. 7–9; Victor S. Clark, *History of Manufactures in the United States*, Vol. 3 (Washington, D.C., 1929), pp. 160–164.

3. Alfred D. Chandler, Jr., *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, 1977), pp. 280–281, 338–339, 365.

4. Nelson, *Managers and Workers*, pp. 36–42; Dan Clawson, *Bureaucracy and the Labor Process* (New York, 1980), pp. 75–83; David Montgomery, "Workers'

Control of Machine Production in the Nineteenth Century," *Labor History* **17** (Fall 1976):486–492.

5. David Brody, *Steelworkers in America: The Nonunion Era* (New York, 1969), p. 19; Joseph A. Litterer, "Systematic Management: The Search for Order and Integration," *Business History Review* **35** (Winter 1961):469–474.

6. Henry Metcalfe, "The Shop-Order System of Accounts," *Transactions of the American Society of Mechanical Engineers* (ASME) **7** (1886); F. E. Webner, "Obtaining Actual Knowledge of the Cost of Production," *The Engineering Magazine* **36** (October 1908); Frederick W. Taylor, *Shop Management* (New York, 1911), pp. 110–122; Horace L. Arnold, *The Complete Cost Keeper* (New York, 1912); Marc J. Epstein, *The Effect of Scientific Management on the Development of Standard Cost Systems* (New York, 1978); Joseph A. Litterer, "Systematic Management: Design for Organizational Recoupling in American Manufacturing Firms," *Business History Review* **37** (Winter 1963):376–389; Reinhard Bendix, *Work and Authority in Industry* (New York, 1956), pp. 211–218.

7. Frederick W. Taylor, "A Piece Rate System: Being a Step toward Partial Solution of the Labor Problem," *Transactions of the ASME* **16** (1895):860–895; C. Bertrand Thompson, "Wages and Wage Systems as Incentives" in Thompson (ed.), *Scientific Management: A Collection of the More Significant Articles Describing the Taylor System of Management* (Cambridge, 1914), pp. 684–705; Robert F. Hoxie, *Scientific Management and Labor* (New York, 1915), pp. 31–32, 120–121.

8. Joseph H. Willits, "Steadying Employment," *The Annals* **65** (May 1916):72; H. Keith Trask, "The Problem of the Minor Executive," *The Engineering Magazine* **38** (January 1910):501; C. J. Morrison, "Short-Sighted Methods in Dealing with Labor," *The Engineering Magazine* **46** (January 1914):568; Fred H. Rindge, Jr., "From Boss to Foreman," *Industrial Management* **53** (July 1917):508–509.

9. Brody, *Steelworkers*, p. 120; Charles Fouhy, "Relations between the Employment Manager and the Foreman," *Industrial Management* **58** (October 1919):336; T. J. Zimmerman, "How They Hold Their Men," *System* **16** (August 1910):150–152.

10. Sumner H. Slichter, *The Turnover of Factory Labor* (New York, 1921), p. 319.

11. Willits, "Steadying Employment," p. 72; John P. Frey and John R. Commons, "Conciliation in the Stove Industry," U.S. Bureau of Labor Statistics Bulletin No. 62 (Washington, 1906), p. 128; Commission of Inquiry, Interchurch World Movement, *Report on the Steel Strike of 1919* (New York, 1920), p. 139.

12. Driving occurred under daywork, where the effort wage was indeterminate, as well as on the new incentive wage systems, which were calculated to reduce unit labor costs as output rose. But it also was prevalent on piecework, partly in response to workers' restriction of output. Lloyd Ulman, *The Rise of the National Trade Union* (Cambridge, 1955), pp. 549–551.

13. Slichter, *Turnover of Factory Labor*, p. 202; Ernest M. Hopkins, "A Functionalized Employment Department as a Factor in Industrial Efficiency," *The Annals* **61** (September 1915):117.

14. Discharges accounted for 16 percent of all separations between 1910 and 1918. Paul F. Brissenden and Emil Frankel, *Labor Turnover in Industry* (New York, 1922), pp. 80–81.

15. Robert A. Gordon, *Business Fluctuations*, 2d ed. (New York, 1961), p. 251.

16. Alexander Keyssar, "Men Out of Work: A Social History of Unemployment in Massachusetts, 1870–1916," Unpublished doctoral dissertation in History of American Civilization, Harvard University, Cambridge, 1977, pp. 73–79.

17. U.S. Bureau of the Census, *Census of Manufactures: 1909*, Part I (Washington, 1912), pp. 27–54.

18. Slichter, *Turnover of Factory Labor*, p. 126. The fact that the plant compiled data on rehires at a time when few others bothered to do so suggests that the data are not representative. Currently between 60 and 65 percent of workers on temporary layoffs are rehired by their original employers. Kim Clark and Lawrence Summers, "Labor Market Dynamics and Unemployment: A Reconsideration," *Brookings Papers on Economic Activity* **1** (1979):49.

19. Office of War Mobilization and Reconversion and Office of Temporary Controls, *Guaranteed Wages: Report to the President by the Advisory Board* (Washington, 1947), pp. 290, 295; New York City Mayor's Committee on Unemployment, *How to Meet Hard Times* (New York, 1917), p. 24; Louis Levine, *The Women's Garment Workers* (New York, 1924), pp. 279–283.

20. Morrison, "Short-Sighted Methods," p. 568; Keyssar, op. cit., 153.

21. Sumner H. Slichter, *Union Policies and Industrial Management* (Washington, 1941), p. 63; U.S. Industrial Commission, *Report on the Relations and Conditions of Capital and Labor*, Vol. 7 (Washington, D.C., 1901), pp. 603, 620; Sanford M. Jacoby and Daniel J. B. Mitchell, "Development of Contractual Features of the Union-Management Relationship," in Industrial Relations Research Association, *Proceedings of the 1982 Spring Meetings, April 28–30, Milwaukee* (Madison, 1982), p. 515.

22. David A. McCabe, *The Standard Rate in American Trade Unions* (Baltimore, 1912), pp. 101, 111, 226–232; John R. Commons, "Labor's Attitude toward Efficiency," *American Economic Review* **1** (September 1911):469; Ulman, *Rise of National Trade Union*, pp. 483–484; Frey and Commons, "Conciliation in the Stove Industry," pp. 128, 157.

23. Slichter, *Union Policies*, p. 117; Dan Mater, "The Development and Operation of the Railroad Seniority System," *Journal of Business* **13** (October 1940) and **14** (January 1941); George Barnett, *The Printers* (Cambridge, 1919), pp. 209–240; John R. Commons, "Labor Conditions in Meat Packing and the Recent Strike," *Quarterly Journal of Economics* **19** (November 1904):17.

24. Sanford Jacoby, "The Duration of Indefinite Employment Contracts in the United States and England: An Historical Analysis," *Comparative Labor Law* **5** (Winter 1982):121–125.

25. Frederic Meyers, "The Analytic Meaning of Seniority," Industrial Relations Research Association, *Proceedings of the 1966 Winter Meeting* (Madison, 1966), p. 4; Clark Kerr, "The Balkanization of Labor Markets," in E. Wight Bakke (ed.), *Labor Mobility and Economic Opportunity* (Cambridge, 1954).

26. Brissenden and Frankel, *Labor Turnover*, p. 91; Slichter, *Turnover of Factory Labor*, pp. 30–33, 55–69; Sanford M. Jacoby, "Industrial Labor Mobility in Historical Perspective," *Industrial Relations* **22** (Spring 1983a):261–282.

27. Henry Eilbirt, "The Development of Personnel Management in the United States," *Business History Review* **33** (Autumn 1959):346; Fred W. Climer, "Cutting Labor Cost in Seasonal Business," *Manufacturing Industries* **13** (May 1927).

28. Stuart Brandes, *American Welfare Capitalism, 1880–1940* (Chicago, 1976); Robert Ozanne, *A Century of Labor Management Relations at McCormick and International Harvester* (Madison, 1967), pp. 32–40; Stephen J. Scheinberg, "The Development of Corporation Labor Policy, 1900–1940," Unpublished doctoral dissertation in History, University of Wisconsin, Madison, 1967, pp. 21–75. This section relies on Sanford Jacoby, "The Early Years of Personnel Management in the United States, 1900–1930," Unpublished paper 1982, pp. 8–11.

29. Arthur Mann, *Yankee Reformers in the Urban Age* (Cambridge, 1954), pp. 84–85; A. F. Davis, *Spearheads for Reform: The Social Settlements and the Progressive Movement, 1890–1914* (New York, 1967), pp. 185–186. Mary B. Gilson, *What's Past Is Prologue* (New York, 1940), p. ix.

30. Daniel Nelson and Stuart Campbell, "Taylorism versus Welfare Work in American Industry," *Business History Review* **46** (Spring 1972):5; Ozanne, *A Century of Labor Management Relations*, pp. 34–35; Robert Clothier, "The Function of the Employment Department," U.S. Bureau of Labor Statistics Bulletin No. 196 (Washington, D.C., 1916), p. 9; Harold Ley, "Employee Welfare Work That Pays," *American Industries* **22** (March 1922):33.

31. Charles U. Carpenter, "The Working of a Labor Department in Industrial Establishments," *The Engineering Magazine* **25** (April 1903); Louis A. Boettiger, *Employee Welfare Work* (New York, 1923), p. 128.

32. Slichter, *Turnover of Factory Labor*, pp. 431–434.

33. John M. Brewer, *History of Vocational Guidance: Origins and Early Development* (New York, 1942); Frank Parsons, *Choosing a Vocation* (Boston, 1909); Sol Cohen, "The Industrial Education Movement, 1907–1917," *American Quarterly* **20** (Spring 1968); John M. Brewer, *The Vocational Guidance Movement* (New York, 1918), p. 289; Jacoby, "Early Years of Personnel Management," pp. 11–14.

34. Meyer Bloomfield, *The Vocational Guidance of Youth* (Boston, 1915); Owen Lovejoy, "Vocational Guidance and Child Labor," U.S. Bureau of Education Bulletin No. 14 (Washington, D.C., 1914), pp. 13–15; Sophonisba P. Breckinridge, "Guidance by the Development of Placement and Follow-Up Work," U.S. Bureau of Education Bulletin No. 14 (Washington, D.C., 1914), pp. 62–63.

35. Meyer Bloomfield, "The School and the Start of Life" in Bloomfield (ed.), *Readings in Vocational Guidance* (Boston, 1915), pp. 679–720; Meyer Bloomfield, "Introduction" in Roy W. Kelly, *Hiring the Worker* (Boston, 1918), p. 2.

36. Meyer Bloomfield in U.S. Commission on Industrial Relations, *Final Report and Testimony*, Vol. 1 (Washington, D.C., 1916), p. 393; Meyer Bloomfield, "The New Profession of Handling Men," *The Annals* **61** (September 1915); Kelly, *Hiring the Worker*, pp. 131–136; Henry Metcalf in National Association of Corporation Schools (NACS), *Third Annual Proceedings* (1915), pp. 348–410; NACS, *Fourth Annual Proceedings* (1916), p. 297.

37. Meyer Bloomfield, "General Discussion," *American Labor Legislation Review* **4** (May 1914):350–352; John B. Andrews, "A Practical Program for the Prevention of Unemployment in America," *American Labor Legislation Review* **5** (November 1915):585–587.

38. Richard A. Feiss, "Scientific Management Applied to the Steadying of Employment and Its Effect in an Industrial Establishment," *The Annals* **61** (September 1915):103–111; Herman Feldman, "The New Emphasis in the Problem of Reducing Unemployment," *Bulletin of the Taylor Society* **7** (October 1922): 176–177; Malcolm C. Rorty, "Broader Aspects of the Employment Problem," *Industrial Management* **52** (February 1917):723; *Personnel* **1** (April 1919): 7.

39. These developments were part of a broader effort then underway to professionalize management by teaching it in university schools of business administration. See Jacoby, "Early Years of Personnel Management," pp. 6–7.

40. Meyer Bloomfield, "Comments" in U.S. Bureau of Labor Statistics Bulletin No. 196 (Washington, D.C., 1916), p. 73; Boyd Fisher to Walter V. Bingham, February 12, 1919, Box 4, Bingham Papers, Carnegie-Mellon University, Pittsburgh; Ordway Tead and Henry C. Metcalf, *Personnel Administration* (New York, 1920), pp. 9–10.

41. Sanford M. Jacoby, "The Origins of Internal Labor Markets in American Manufacturing Firms, 1910–1940," Unpublished doctoral dissertation in Economics, University of California, Berkeley, 1981, p. 253; Sumner H. Slichter, "Review of Personnel Relations in Industry," *Administration* **2** (August 1921):261–263.

42. Slichter, ibid., 262; Slichter *Turnover of Factory Labor*, pp. 432, 426–427.

43. Lebergott, *Manpower in Economic Growth*, p. 512; Paul H. Douglas, *Real Wages in the United States, 1890–1926* (New York, 1930), p. 445.

44. Sumner H. Slichter, "Industrial Morale," *Quarterly Journal of Economics*, (November 1920), reprinted in *Potentials of the American Economy: Selected Essays of Sumner H. Slichter* (Cambridge, 1961), p. 169; Guy Tripp in *Iron Trade Review* **66** (January 19, 1920):369; John W. Kendrick, *Productivity Trends in the United States* (Princeton, 1961), p. 136; Paul H. Douglas, "Personnel Problems and the Business Cycle," *Administration* **4** (July 1922):17–18.

45. Alexander M. Bing, *Wartime Strikes and Their Adjustment* (New York, 1921), pp. 28–30, 291–296; Jeremy Brecher, *Strike!* (Greenwich, 1972), pp. 133–180; David Montgomery, "The New Unionism and the Transformation of Workers' Consciousness in America, 1909–1922," *Journal of Social History* **7** (Summer 1974):514.

46. For a detailed discussion of labor turnover during this period, see Jacoby, "Industrial Labor Mobility."

47. These figures are estimates. Robert F. Lovett, "Tendencies in Personnel Practice, "Bureau of Personnel Research, Carnegie Institute of Technology, *Service Bulletin* **5** (February 1923):11–12; Edward D. Jones, "Employment Management," Federal Board for Vocational Education Bulletin No. 50 (Washington, 1920), p. 15; Jacoby, "Early Years of Personnel Management," pp. 15–16.

48. Paul H. Douglas, "War Time Courses in Employment Management," *School and Society* **9** (June 7, 1919):692; Meyer Jacobstein, "Government Courses for Training Employment Managers," U.S. Bureau of Labor Statistics Bulletin No. 247 (Washington, D.C., 1918), p. 19; Paul H. Douglas and F. E. Wolfe, "Labor Administration in the Shipbuilding Industry during War Time II," *Journal of Political Economy* **27** (March 1919):376–377.

49. Kelly, *Hiring the Worker*, pp. 57–100; National Association of Employment Managers, *Proceedings* (Cleveland, 1919), p. 35; C. J. Shower, "Pontiac Centralizes Its Employment of Labor," *Automotive Industries* **39** (July 11, 1918); Arthur H. Young, "Harmonizing the Man and His Job," *Iron Trade Review* **60** (February 5, 1917):427.

50. Paul H. Douglas, "Plant Administration of Labor," *Journal of Political Economy* **27** (March 1919):551; "Relations of Employment Office and Foremen" in Industrial Relations Association of America (IRAA), *Proceedings* (Chicago, 1920), Part 2, pp. 559–563; D. R. Kennedy, "Training the Foreman of Industry," *Industrial Management* **59** (January 1920):68.

51. J. D. Hackett, "Job Analysis as Aid to Production," *Iron Trade Review* **67** (September 9, 1920):722–724; Hugh L. Clary, "The Zoning of Jobs," *Industrial Management* **61** (May 1921):324–326; John Lee, The So-Called Profit Sharing System in the Ford Plant," *The Annals* **65** (May 1916):300. The personnel manager at Clothcraft Shops, a pioneer in wage standardization, wrote, "we carefully went over our rates, wages, and salaries quarterly, always with the idea of relativity of rates in our plant in mind. That nebulous thing known as the 'market rate' did not govern us." Gilson, *What's Past Is Prologue*, p. 75.

52. See the discussion of the 1918 Bridgeport machinists' strike in Jacoby, "Origins of Internal Labor Markets," pp. 438–441; Richard H. Rice, "Discussion of Employee Representation Plans," National Association of Corporation Training. *Bulletin* **8** (August 1921):346–363; Bing, *Wartime Strikes and Their Adjustment*, pp. 195–206.

53. Wage standardization by the government was "almost everywhere resisted by employers." Bing, *Wartime Strikes and Their Adjustment*, p. 199; "Report of the Special Conference Committee," July 15, 1920, Industrial Service Department Committee Minutes, YMCA Historical Library, New York.

54. Slichter, *Turnover of Factory Labor*, pp. 189, 356; Meyer Bloomfield, *Labor and Compensation* (New York, 1918), pp. 308–309; Franklyn Meine, "Promotions of Factory Employees" in Daniel Bloomfield (ed.), *Problems in Personnel Management* (New York, 1923).

55. Meine, ibid., pp. 280–281; Phillip J. Reilly, "Planning Promotion for Employees and the Effect in Reducing Labor Turnover," *The Annals* 71 (May 1917):136–139.

56. "Survey Methods of Promotion," *Industrial Relations* 7 (April 2, 1921):619–624; B. S. Beach, "Filling Vacancies from within the Ranks," *Industrial Management* **67** (February 1924):90.

57. National Association of Employment Managers, *Proceedings* (Cleveland, 1919), p. 62; *Industrial Relations* **15** (May 26, 1923):1544; National Association of Corporation Training, "Methods of Transfer and Promotion in Business Organizations," Confidential Report No. 6 (October 1920), pp. 3, 4, 7–12; Paul F. Gemmill, "Methods of Promoting Industrial Employees," *Industrial Management* **67** (April 1924), p. 238.

58. Gemmill, "Methods of Promoting Industrial Employees," p. 246; Slichter, *Potentials of the American Economy*, p. 178; Fouhy, "Relations between the Employment Manager and the Foreman," p. 336.

59. Merlin M. Taylor, "We Can't Get Men to Stay," *Factory* **20** (February 1918):231; Charles M. Horton, "Under New Management—Judging Men," *Industrial Management* **55** (March 1918):226; National Association of Corporation Schools *Bulletin* **7** (April 1920):179–182.

60. "Standard Oil's New Labor Democracy," NACS *Bulletin* **5** (June 1918): 207–209; John R. Commons, *Industrial Government* (New York, 1921), chap. 5; Joseph T. Gilman, "Analyses of Reasons for Leaving and Their Use," U.S. Bureau of Labor Statistics Bulletin No. 227 (Washington, 1917), p. 135.

61. Edwin S. Blodgett, "I Quit—I No Like Job," *Factory* **21** (March 1919):473–474, emphasis added.

62. Jones, "Employment Management," pp. 19–20; Meyer Bloomfield, "Employment Management Department," *Industrial Management* **52** (January 1917):557.

63. Kelly, *Hiring the Worker*, p. 32; Commission of Inquiry, *Report on Steel Strike*, pp. 210–211.

64. Sumner H. Slichter, "The Current Labor Policies of American Industries," *Quarterly Journal of Economics* (May 1929); reprinted in Slichter, *Potentials of the American Economy*, pp. 184–212.

65. "Reduction of Absence and Tardiness," Industrial Relations Section, Princeton University (December 1927), p. 15; National Industrial Conference Board, *Industrial Pensions in the United States* (New York, 1925), pp. 13–15, 62–65.

66. Ibid., pp. 25–28; James P. Adams, "A Common Sense Attack on Labor Turnover," *Industrial Management* **62** (November 1921):302.

67. "Report on Profit Sharing and Stock Ownership" in YMCA, *Industrial Conference on Human Relations and Betterment in Industry* (New York, 1924), p. 21; "Reduction of Absence and Tardiness," p. 2; Adams, "A Common Sense Attack," p. 301; Jacoby, "Origins of Internal Labor Markets," pp. 476–479.

68. Allen M. Wakstein, "The Origins of the Open-Shop Movement, 1919–1920," *Journal of American History* **51** (December 1964):460–475; Robert K. Murray, *Red Scare: A Study in National Hysteria* (Minneapolis, 1955); Dudley R. Kennedy, "The Future of Industrial Relations," *Industrial Management* **59** (March 1920):558; Jacoby, "Early Years of Personnel Management," pp. 18–20.

69. National Associationn of Corporation Schools, *Eighth Annual Proceedings* (1920), pp. 97–101; Industrial Relations Association of America, *Proceedings* (Chicago, 1920), Part 1, p. 81; Charles Piez, "Trends in Management; What Is the Business Outlook Today?" *Factory* **26** (January 1, 1921):32; E. S. Cowdrick, "What Are We Going to Do with the Boss?" *Industrial Management* **60** (August 1920):195.

70. Douglas, *Real Wages*, p. 445; Douglas, "Plant Administration," pp. 18–23.

71. William L. Chenery, "Personnel Relations Tested," *The Survey* (May 21, 1921), pp. 236–237; Lovett, "Tendencies," p. 13; J. David Houser, *What the Employer Thinks* (Cambridge, 1927), pp. 74, 116.

72. W. J. Donald, "The Newer Conception of Personnel Functions," *Factory and Industrial Management* **75** (March 1928): 514–515; National Industrial Conference Board, *Industrial Relations Programs in Small Plants* (New York, 1929), p. 20.

73. Lebergott, *Manpower in Economic Growth*, pp. 521, 514; Douglas, *Real Wages*, p. 445; National Industrial Conference Board, *Wages in the United States* (New York, 1931), p. 19; Irving Bernstein, *The Lean Years* (Boston, 1960), p. 67. Real wages hardly decline, however, due to the steady drop in consumer and wholesale prices. Clarence D. Long, "The Illusion of Money Wage Rigidity," *Review of Economics and Statistics* **42** (May 1960), pp. 150–151.

74. See Jacoby, "Industrial Labor Mobility," for a detailed discussion of these points.

75. "The Personnel Content of Management," *American Management Review* **12** (April 1923), pp. 3–6; Sam A. Lewisohn, "Management's Part in Personnel Administration," *Personnel Administration* **9** (August 1922):3–4; T. G. Portmore, "Selecting Employees to Meet the Needs of the Foreman," *American Management Review* **12** (April 1924):3–5; Leo Wolman and Gustave Peck, "Labor in the Social Structure" in President's Research Committee, *Recent Social Trends in the United States* (New York, 1933), p. 830.

76. See table 2.2, infra; Gilson, *What's Past Is Prologue*, p. 101.

77. Florence A. Thorne to Morris L. Cooke, Box 66, Cooke Papers, Franklin D. Roosevelt Presidential Library, Hyde Park, New York; M. J. Jucius, "The Use of Wage Incentives," *Journal of Business* **5** (January 1932):6; Bernstein, *Lean Years*, p. 67; Robert Ozanne, *Wages in Practice and Theory* (Madison, 1968), pp. 144–155.

78. Leah H. Feder, *Unemployment Relief During Periods of Depression* (New York, 1936), p. 313; "Unemployment Survey, 1920–1921," *American Labor*

Legislation Review **11** (September 1921):210–213; "Report of the Special Conference Committee: Supplement," March 1921, Industrial Service Department Committee Minutes, YMCA Historical Library, New York.

79. National Industrial Conference Board, *Layoff and Its Prevention* (New York, 1930), pp. 38–39, 56.

80. Roger E. Keeran, "Communist Influence in the Automobile Industry, 1920–1933," *Labor History* **20** (Spring 1979):216; Robert S. and Helen M. Lynd, *Middletown: A Study in Modern American Culture* (New York, 1929), pp. 66–78.

81. C. Canby Balderston, *Executive Guidance of Industrial Relations* (Philadelphia, 1935), pp. 224–240.

82. Sanford M. Jacoby, "Union—Management Cooperation in the United States: Lessons from the 1920s," *Industrial and Labor Relations Review* **37** (October 1983b); David S. Landes, *The Unbound Prometheus* (Cambridge, 1969), pp. 359–385.

83. These techniques included product diversification, sales planning, production for stock, training workers for transfers, and working repairs in with production. See Herman Feldman, *The Regularization of Employment* (New York, 1925); S. A. Lewisohn, E. G. Draper, J. R. Commons, and Don D. Lescohier, *Can Business Prevent Unemployment?* (New York, 1925).

84. Less stable firms could have eased the burden of instability by paying unemployment insurance, but few nonunion employers did this. They offered higher wages, but observers felt that compensating differentials were "inadequate" so that "the primary burden of instability of employment falls upon the worker and his family." Finally, they could have tried to stabilize employment and reduce seasonal fluctuations. But for a variety of reasons the seasonal instability of employment actually increased after 1923 in durable and semidurable manufacturing industries. National Industrial Conference Board, *Layoff and Its Prevention*, p. 67; Alvin Hansen and Paul A. Samuelson, "Economic Analysis of Guaranteed Wages" in *Guaranteed Wages*, p. 425; Simon Kuznets, *Seasonal Variations in Industry and Trade* (New York, 1933), pp. 211, 311, 355–361.

85. Balderston, *Executive Guidance*, pp. 224–240.

86. National Industrial Conference Board, *Industrial Relations Programs*, pp. 2, 20.

87. Bernstein, *Lean Years*, pp. 314, 476–478; Joseph Shister, *Economics of the Labor Market* (New York, 1949), pp. 437–442; National Industrial Conference Board, *Effect of the Depression on Industrial Relations Programs* (New York, 1934), p. 12; William M. Leiserson, "Personnel Problems Raised by the Current Economic Crisis," *The Management Review* **22** (April 1933):114.

88. Industrial Relations Counselors (IRC), "Memorandum to Clients No. 2" (September 1934), p. 5.

89. U.S. Senate, Committee on Education and Labor, "Hearings before the Subcommittee on Violations of Free Speech and Rights of Labor," 76th Cong. (1939), Part 45, p. 16831.

90. Lewis L. Lorwin and A. Wubnig, *Labor Relations Boards* (Washington, D.C., 1935).

91. IRC, "Memorandum No. 2," p. 4; IRC, "Memorandum to Clients No. 24" (June 1936); American Management Association (AMA), "Management's Industrial Relations Problems," Personnel Series (PS) No. 22 (1936), p. 22.

92. NICB, "Plans for Rating Employees," Studies in Personnel Policy (SPP) No. 8 (1938); Helen Baker, "Company Plans for Employee Promotions," Industrial Relations Section, Princeton University, Report No. 58 (Princeton, 1939), p. 8.

93. NICB, "Job Evaluation," SPP No. 25 (1940), pp. 10–38; C. Canby Balderston, "Wage Setting Based on Job Analysis and Evaluation," IRC Monograph No. 4 (New York, 1940); AMA, "Compensation Problems and Training Techniques Today," PS No. 24 (1936), pp. 4–6.

94. Elmo Roper, "What American Labor Wants," *The American Mercury* (February 1944):181.

95. "Company Plans for the Regularization of Plant Operation and Employment," Industrial Relations Section, Princeton University (Princeton, 1933), p. 13; NICB, "Assuring Employment or Income to Wage Earners," SPP No. 7 (1938).

96. NICB, "Curtailment, Layoff Policy and Seniority," SPP No. 5 (1938), p. 8.

97. "The U.S. Steel Corporation: Part III," *Fortune* (May 1936): 141.

98. The proportion of the manufacturing labor force over 45 years of age declined from 30 percent in 1930 to 26 percent in 1940. Jacoby, "Industrial Labor Mobility"; NICB, *What Employers Are Doing*, pp. 32–33.

99. Sumner Slichter, *Union Policies and Industrial Management* (Washington, D.C., 1941), pp. 104–107.

100. NICB, "Curtailment . . . ," p. 8.

101. T. G. Spates, "An Analysis of Industrial Relations Trends," AMA Personnel Series No. 25 (1937), p. 24.

102. George S. Gibb, *The Saco-Lowell Shops* (Cambridge, 1950), pp. 345, 805.

103. *Guaranteed Wages*, p. 297.

104. NICB, "Curtailment . . . ," p. 9; NICB, "Seniority Systems in Nonunionized Companies," SPP No. 110 (1950), p. 11. NICB, "Written Statements of Personnel Policy," SPP No. 79 (1947), pp. 17–26.

105. NICB, "Selecting, Training and Upgrading," SPP No. 37 (1941), p. 8; Clint Golden, "Making the Collective Agreement Work," in *Addresses on Industrial Relations*, University of Michigan, Bureau of Industrial Relations, Bulletin No.

9 (Ann Arbor, 1939), p. 72; Frederick Harbison, "Seniority in Mass Production Industries," *Journal of Political Economy* (December 1940), pp. 851–864.

106. NICB, "Seniority Systems . . . ," p. 13.

107. H. Ellsworth Steele, William Myles, and S. McIntyre, "Personnel Practices in the South," *Industrial and Labor Relations Review* **9** (January 1956):250.

108. "Survey of Contracts under Taft-Hartley Act," Bureau of National Affairs, *Labor Relations Reference Manual* **22** (1948):3–7; NICB, "Seniority Systems . . . ," p. 5.

109. Steele, et al., "Personnel Practices," p. 250.

110. AMA, "Putting Job Rating to Work," PS No. 49 (1941), pp. 26–28; Helen Baker and John M. True, "The Operation of Job Evaluations Plans," Industrial Relations Section, Princeton University, Report No. 74 (Princeton, 1947), p. 13.

111. Sumner Slichter, "Layoff Policy" in *Addresses on Industrial Relations,* p. 87; NICB, "Employee Rating," SPP No. 39 (1942), p. 16.

112. NICB, *What Employers Are Doing . . . ,* p. 26; NICB, "Personnel Activities . . . ," pp. 19–29.

113. Helen Baker, "The Industrial Relations Executive and Collective Bargaining." *Society for the Advancement of Management Journal* **4** (July 1939):107; Harold F. North, "The Personnel Man's Functional Relationships," AMA Personnel Series No. 45 (1940), pp. 19–21; AMA, "Principles and Methods of Industrial Training," PS No. 47 (1941); J. T. Burke, "Sensing Employee Attitudes" in *Addresses on Industrial Relations,* pp. 25–30; Arthur Kornhauser, "Psychological Studies of Employee Attitudes" in S. D. Hoslett (ed.), *Human Factors in Management* (New York, 1946).

114. C. A. Drake, "Developing Professional Standards for Personnel Executives," *Personnel,* **19** (March 1943), pp. 646–655; North, "Functional Relationships," p. 25; H. G. Heneman, Jr., "Qualifying the Professional Industrial Relations Worker," *Personnel,* **24** (November 1948), pp. 220–224; William V. Owen, "Decentralize Personnel Work," *Personnel Journal,* **19** (June 1940), pp. 65–68.

115. R. R. Brooks, *Unions of Their Own Choosing* (New Haven, 1939); Joseph Rosenfarb, *The National Labor Policy and How It Works* (New York, 1940), pp. 36–61; R. L. Greenman, *The Worker, the Foreman and the Wagner Act* (New York, 1939), pp. 9–113.

116. NICB, "Selected Interpretations of the Fair Labor Standards Act," Management Research Memorandum No. 8 (1942).

117. NICB, "Reducing Fluctuation in Employment," SPP No. 27 (1940), pp. 5–12; NICB, "Annual Wage and Employment Guarantee Plans," SPP No. 76 (1946), p. 9.

118. NICB, "Company Pension Plans and the Social Security Act," SPP No. 16 (1939), p. 25; NICB, "Dismissal Compensation," SPP No. 50 (1943), p. 3.

119. Paul A. C. Koistinen, "Mobilizing the World War II Economy," *Pacific Historical Review* **42** (November 1973):451–460; Joel Seidman, *American Labor from Defense to Reconversion* (Chicago, 1953).

120. NICB, "Time Schedules for Job Training," SPP No. 55 (1943); Carroll L. Shartle, "New Defense Personnel Techniques," *Occupations* **19** (March 1941):403–408; AMA, "Operating under Manpower Controls," PS No. 64 (1943), pp. 5–7, 29–42.

121. Carroll L. Daugherty, "A Review of War Labor Board Experience," AMA Personnel Series No. 77 (1944), pp. 3–10; *The Termination Report of the National War Labor Board,* Vol. 1 (Washington, D.C., 1947), pp. 226–273; NICB, "Principles and Applications of Job Evaluation," SPP No. 62 (1944), pp. 12–26.

122. *Termination Report,* pp. 274–289; G. L. Bergen, "War's Lessons in Personnel Administration," AMA Personnel Series No. 94 (1945), pp. 39–40.

123. *Termination Report,* pp. 380–385. Popular demands and new tax incentives for pension plans also triggered the post-1940 growth of welfare benefits. Jacoby and Mitchell, "Development of Contractual Features," p. 516; Adrian De Wind, "Federal Regulation of Pension Plans" in NICB, "Designing a Company Pension Plan," SPP No. 67 (1944), pp. 10–13.

124. Thomas H. Patten, *The Foreman: Forgotten Man of Management* (New York, 1969); Donald E. Wray, "Marginal Men of Industry: The Foremen," *American Journal of Sociology* (January 1949):298–301.

125. Theodore A. Olsen, "Wrongful Discharge Claims Raised by At Will Employees," *Labor Law Journal* **32** (May 1981):265–297.

126. "Personnel Widens Its Franchise," *Business Week* (February 26, 1979):120–121.

127. Philip Selznick, *Law, Society and Industrial Justice* (New York, 1969), pp. 185–211.

128. Robert M. Solow, "On Theories of Unemployment," *American Economic Review,* **83** (March 1980), p. 3. Also see George A. Akerlof, "A Theory of Social Custom, of Which Employment May Be One Consequence," *Quarterly Journal of Economics* **94** (June 1980):749–775.