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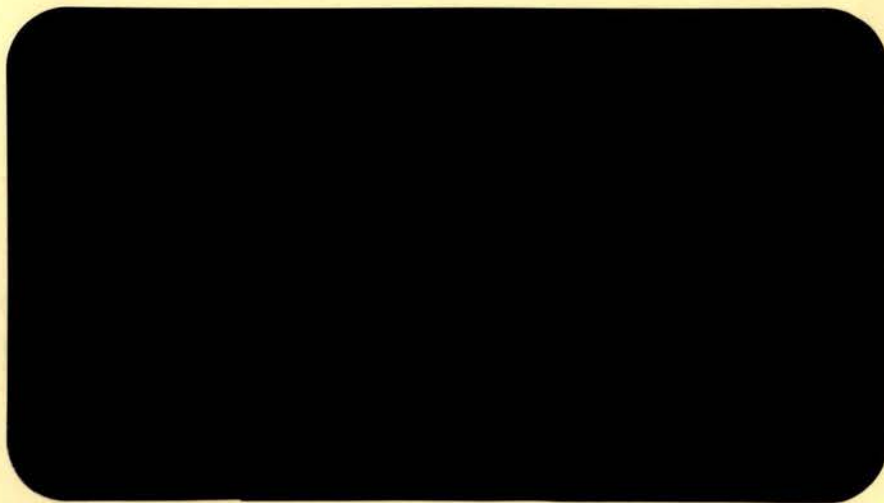
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LABOR DISPLACEMENT AND PUBLIC POLICY

by

Philip Martin and Candice Hall

Working Paper No. 78-3

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This research was supported in part by the Kellogg Program, UC Davis.

University of California, Davis  
Department of Agricultural Economics

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### Abstract

Change is an inevitable part of every dynamic society. Economic changes which displace labor include changes in consumer preferences which result in unemployment for those producing goods no longer desired, technical changes, in which the same product is produced with less labor, and political-economic changes, which cause labor displacement as a direct or indirect result of a conscious policy decision. Under tradition, public policy, and law, the source of labor-displacing change is a primary determinant of the availability and extent of any "adjustment assistance" for those persons displaced.

In Europe, virtually all workers are guaranteed some form of adjustment assistance, including mandatory 30-day notice before severance, severance pay, and (often) retraining and relocation assistance. In the United States, adjustment assistance is provided as a result of private negotiations (usually between union and management) or because the federal government has assumed an obligation for those displaced. Collective bargaining agreements which provided private adjustment assistance to displaced workers include the meat-packing automation agreements of the early 1960's and the longshore containerization agreements in the late 1950's. Federal adjustment assistance is provided to those in domestic industries who lose work time or employment because of import competition and to individuals who may be displaced by government-mandated rail or mass transit re-organization, park expansion, or environmental protections.

Individuals involuntarily displaced typically suffer substantial income (and psychic) losses. Earnings in the year after displacement are often only 50 to 75 percent of earnings in the year before displacement. Individual hardship varies in relatively predictable patterns. Older workers, those with fewer skills, those unable to leave the area, and those who are female or belong to minority populations suffer the most severe income losses. The extent and distribution of income losses depends on both individual and area characteristics. Area unemployment conditions are most critical in determining re-employment ease or difficulty, but advance notice, employer-union cooperation, and the active involvement of local employment service personnel can reduce the duration of unemployment and improve prospects for satisfying new employment.

Current concern for the labor displacing consequences of agricultural mechanization results from the nature of labor-displacing change, the lack of private and public adjustment assistance for displaced farm laborers, and the existence of real income losses among those displaced. Although some 700,000 persons do some farmwork for pay each year in California, the vast majority work less than 10 days in agriculture. The resulting work pattern assures farmworkers multiple sources of income, which limits income losses when any single crop harvest is mechanized. In designing and administering any "adjustment assistance" program for farmworkers, the high proportion of "casual" workers and these multiple income sources make it difficult to

avoid a Hobson's choice: exclusion of the casual workforce or providing incentives to many persons to do a few days of farmwork in order to qualify for displacement compensation.

Some agricultural research is conducted with public monies. If this research results in labor-saving innovations, what responsibility does government (or its agents) incur for the plight of displaced labor? If one adopts the legal notion of culpability, responsibility rests with the initiator of displacing change, i.e., the university. But if the benefits of agricultural mechanization accrue to society-at-large, general labor market assistance can be justified. General adjustment assistance is usually favored by manpower researchers, since it is often more effective and efficient and avoids horizontal inequities (providing different benefits to similarly situated persons).



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## 1. Introduction

Change is an inevitable part of every dynamic society. Every change divides the population into three groups: those helped, those hurt, and those unaffected. Change occurs when those benefitting from it are able to persuade or effect it despite resistance by those who are forced to adjust. The current concern for the impacts of agricultural changes and the role of the University in effecting those changes illustrates the classic clash between gainers and losers. No analysis of change can be definitive, since value judgments are required to evaluate the competing claims of gainers and losers. In the agricultural debate, even this subjective analysis is made difficult by the paucity of facts. This essay seeks to increase our understanding of the issues surrounding agricultural mechanization by exploring the ways in which labor-displacing changes are treated in Europe and in the nonfarm industries of the U.S.

Change occurs in every part of society. Economic changes are omnipresent and often encouraged, since profit-motivated changes occurring under competitive market structures (generally) increase efficiency. Efficiency-increasing changes have ramifications in input markets. As producers change the set of outputs offered for sale, they also alter their demands for labor, capital, and other inputs. Because competitive economic theory assumes that all persons have full information about available opportunities and that all changes are instantaneous and costless, economists have been slow to develop a theory of labor market adjustment to explain the actual experiences of those who are displaced as a result of economic change.

Economic changes can displace labor in a variety of ways. In a market economy, consumer preferences (and producer advertising) determine market



demands for goods and services. As market demands change, so do the associated set of inputs necessary to supply goods and services. Historically, the American economy has progressed from a goods-producing to a service-providing system. As preferences changed, labor and capital were often forced to seek reemployment, e.g., the advent of the automobile forced many blacksmiths and carriage makers to find new jobs.<sup>1/</sup> Job transitions imposed by changing market demands are omnipresent. Although individual hardship often accompanies such job changes, the American economy has usually been able to provide jobs in expanding sectors to workers displaced by reduced demands in other sectors. Given the established patterns of social status and custom, such displacement often required a loss of prestige (from e.g., artisan to factory worker), but a growing economy minimized real income losses.

In addition to market demand changes, labor displacement can arise because of changes in production technique. Although the same good or service is being produced, technological (or organizational) changes permit it to be supplied with a different input mix, e.g., more capital and less labor. The paradigm for such labor displacing technological change is U.S. agriculture, which decreased the share of domestic labor required for the production of foodstuffs from 95 percent of the population in 1790 to less than five percent in 1975, even while food production increased dramatically. Indeed, nearly all goods-producing and extractive industries have been able to maintain or increase output with smaller labor forces, pushing displaced labor and new labor force entrants into the expanding service economy.

Market demand and technological changes displace labor in a relatively "impersonal" manner, with price changes forcing producers to adjust or face bankruptcy. The third form of labor-displacing change is more intimately

tied to political economy than to consumption and production economics. Changes in government spending patterns, in regulatory or safety laws, or in international economic policies can directly and indirectly affect the levels of output and employment in "impacted" industries. A government decision to decrease space efforts or high technology defense research can result in engineer and technician displacement, just as a decision to minimize import restrictions (tariffs and quotas) can permit import competition which reduces or eliminates domestic production and employment.

Labor displacement which results from public policies (or policy changes) has been regarded differently than the displacement which accompanies economic and technological changes. Public policy is sometimes cognizant of the incompatible nature of public goals, and has enacted various programs to cushion the adjustments required of impacted producers and their labor forces. Explicit cognizance of incompatible social goals, at least in the short-run, has led to the enactment of legislation designed to reduce the hardships which may result from the pursuit of competing (desirable) goals. Because society aims to achieve both full employment and freer trade, Congress included an adjustment assistance program in the Trade Adjustment Assistance Act (1962) to minimize the losses of workers displaced as a result of increased imports.<sup>2/</sup> Legislative cognizance of the fact that moves toward free trade and labor displacement are joint products represents one of the first instances in which the consequences of one desirable goal (free trade) were anticipated and means for mitigating those consequences were established.

Other sources of labor-displacing change include managerial decisions and (private) merger or relocation decisions, the latter sometimes influenced by public policies. Managerial time and motion studies often



prescribe changes in work organization which displace production workers. Mergers and consolidations, on the other hand, can displace managerial personnel in addition to production workers. Plant relocations, partially motivated by direct (e.g., taxes) or indirect (e.g., environmental regulations) public policies, indiscriminately displace labor but it usually is only the more skilled production workers and management personnel who are rehired at the new plant. Unless unions have negotiated severance protection (or the employer is acting to unfairly "chill" union activity), displaced production workers enjoy no protection.<sup>3/</sup> Managerial personnel, by contrast, are often granted severance pay when displaced because of mergers or consolidations.

Current agricultural mechanization includes elements of both technological and political-economic changes. Farm labor can be displaced as a result of the diffusion of labor-saving technology. Such technology often results from research undertaken by publicly-subsidized land-grant institutions. Following the German lead, the U.S. established tax-supported agricultural schools and research centers in 1862, with the mission of improving American agriculture and life in rural communities. Although payoffs were initially limited, the research effort eventually produced an impressive array of basic scientific discoveries and engineering innovations. These discoveries and innovations, usually refined, produced, and marketed by private industry, became the "best practice" techniques promoted by publicly-supported "extension" efforts. Although publicly-supported research efforts never supplanted private research efforts in agriculture, public efforts dominated basic research and extension efforts complemented private production research and marketing strategies.



Profit-motivated farmers adopt labor-saving devices in order to maintain or increase their returns. Consumer preferences are assumed to determine market demands (and thus crop acreages), while relative labor-capital costs fix the optimal set of inputs.<sup>4/</sup> In a competitive market economy with full information and no taxes or subsidies, consumer preferences and supply conditions ultimately determine (domestic) production levels and prices. Input markets determine both relative wages and the employment of capital and labor inputs. Whenever these competitive market conditions are absent, any changes which ensue are the (partial) result of market interference rather than the outcomes of competitive market workings. If, for example, public policies keep crop prices "too low", output (and hence employment) will be restricted. Similarly, if wage rates are "artificially" raised (with e.g., minimum wages) or if capital costs are lowered (by maintaining low interest rates or subsidizing labor-saving research), employers will have incentives to economize on the use of labor.

Agricultural changes, occurring under both perfect and imperfect market conditions, provide long-term social benefits. Although some long-term costs to the environment, the social structure, and the economic system may have been overlooked in the transformation of American agriculture, output has increased dramatically. Farm output per man-hour more than quadrupled from 1950 to 1975 (1967 = 100), the index increasing from 34 to 141. The problem with agricultural change, like many other changes, is that long-term benefits are realized only after a period of short-term costs. Since costs occur before benefits redound to society, there are sound social and economic reasons to critically evaluate such changes. Economic analysis typically show that long-term benefits arise from agricultural changes, but these

benefit calculations often neglect or minimize an array of short-term social costs. Even if long-term benefits clearly outweigh short-term costs, evaluation of agricultural change should include consideration of now to reduce short-term adjustment costs and deciding who should assume responsibility for such adjustment assistance efforts.

Why do those threatened with displacement fear it, why do workers attempt to exert some control over the pace and extent of technological change? The simplest answer is that displaced workers suffer real economic and psychological losses, losses not fully compensable under any adjustment assistance plan. In addition to the wage losses and the disruption in daily routines caused by job loss, displaced workers usually lose accrued seniority rights and cumulative fringe benefits, such as the health insurance and the higher pensions which result from continuous service. Most declining industries subject to labor displacing changes, including agriculture, contain relatively high proportions of workers at the extremes of the age distribution. While younger workers can sometimes minimize displacement losses with retraining and relocation, older workers are often constrained to a particular area by spatially-fixed assets, familial ties, or low probabilities of hire in other areas. Even if compensation is provided, displaced workers (especially those over 45), resist change because of the real uncompensable losses which often accompany it.

Economic and psychological losses are but one reason for resistance to technological change. Other reasons include an assumed scarcity consciousness amongst workers and feelings of inequity engendered by the powerlessness of an individual to shape his or her future. Following Sombart, Perlman distinguished between those "who prefer a secure, though modest



return . . . and those who play for big stakes and are willing to assume risk in proportion," i.e., workers and employers. The scarcity consciousness of workers, as individuals and groups, accounts for a traditional labor concern for job property rights, for rights to the economic and psychological rewards of existent jobs. This scarcity consciousness combines with frustrations over the inability of an individual to control his or her future to produce widespread resentment against labor-displacing changes.<sup>5/</sup> Even if changes result in demonstrated social gains, the workers displaced may vociferously oppose change.

The current agricultural mechanization debate centers on the extent of public and private responsibility for farm workers displaced by labor-saving agricultural inventions. Some observers find direct public culpability for labor displacement in the public subsidization of agricultural research and extension efforts. Others argue that, regardless of the source of research and development financing, it is in the public interest to influence the diffusion of labor-saving agricultural technology with tax policies. Divergent views on responsibility for displacement effects leads to different opinions on the job displacement rights owed to farm workers, i.e., the compensation and other assistance displaced farm workers should be entitled to based on their previous agricultural employment. The public policy debate on agricultural mechanization and labor displacement reduces to an examination of existing and proposed job property rights for farm workers.

The simplest (and most common) job property rights available to farm workers are those privately negotiated with agricultural employers. Most farm workers have no explicit job dismissal agreements. When an employer reduces the harvest labor force by mechanizing, farm workers are typically



only told that work is no longer available and are then left to seek reemployment, (re)training, or some form of public assistance on their own. A farm worker's agent, a crew leader, a labor union, or a foreign government (under the now defunct Bracero program), can negotiate an agreement calling for a minimum employment period and requiring notice before dismissal. Farm worker representatives can also negotiate more comprehensive adjustment assistance agreements, providing e.g., seniority rights to determine layoff priorities, transfer rights, severance pay, and retraining provisions.

Public policy currently plays only an indirect role in the establishment of individual or occupational job property rights. Agricultural labor laws now require recognition of and bargaining with farm worker representatives, but such laws do not intervene to determine the content of individual agreements. But public policies can be far more direct. Job displacement rights could be created by statute as with laws prescribing minimal notice and severance pay. Various adjustment assistance programs could be legislated. Several that have been proposed include programs which would tax labor-saving agricultural machinery in order to compensate displaced farm workers, plans which would permit profit-motivated employers to dictate displacement while displaced farm workers are compensated from general tax revenues, and plans which require the issuance of social impact statements to examine displacement effects before public monies were committed to agricultural research or extension efforts. The compensation proposals usually cover all farm workers displaced by mechanization while the social impact statement proposals often limit their attention to instances of displacement involving some degree of public subsidization.

Compensation or pecuniary restoration of position is only one way in which displaced workers can be assisted. If the workforce has some special attachment to an occupation and long-term prospects for employment expansion are dim, workers (and their unions) may seek to totally avoid technological change, as firemen did in the railroad industry. Similarly, unions may permit the introduction of new technology, but limit its economic value to employers by negotiating the continued use of traditional, labor-intensive production methods, as typesetters did in the printing industry. Although opinions are not unambiguous, it appears that few critics of farm mechanization see value in preserving harvest labor jobs per se. Given the historical record and future employment prospects, it appears that most observers are searching for optimal instruments to compensate displaced farm workers and ease their transition into new, primarily nonfarm jobs. Since effective levels of adjustment assistance are not universally available, we focus on the contractual and statutory adjustment assistance programs in Europe and in nonfarm American industries which have facilitated employment transitions caused by technological changes.

This essay examines the role of job property rights in cushioning displacement in nonfarm industries. After surveying statutory rights to notice and adjustment assistance in the U.S. and Europe, we examine the character of privately-negotiated displacement rights in the United States. Privately-negotiated adjustment plans are complemented by statutory adjustment assistance programs. When displacement results from the pursuit of competing social objectives, as, e.g., displacement due to increased imports, federal adjustment assistance is sometimes available. The Federal adjustment assistance statutes demonstrate legislative cognizance of the joint nature



of public policy and labor displacement. Every adjustment assistance plan defines eligibility for assistance, levels of compensation, and the duration of assistance. The paper concludes with an assessment of current adjustment assistance programs and examines the consequences of extending such adjustment assistance to farm workers.

## 2. Displacement-Associated Job Property Rights

There are many interests incident to employment, derived from law, labor agreements or general expectation, which determine the value of a job to an individual. We refer to those employment-related interests protected by law or contract as job property rights. When workers are displaced by technological and organizational changes, they forfeit their associated job interests and property rights. There is no comprehensive legal system of job property rights in the United States. Labor and civil rights laws and the common law of torts place some limited constraints on employment relations to protect the interests of workers, but few such interests are recognized as property rights which vest in the worker. Virtually all of the European countries, on the other hand, have comprehensive legal systems of job property rights. Collective bargaining agreements are the primary source of job property rights for American workers in non-farm industries. In Europe, collective bargaining agreements often reinforce, rather than create, job property rights. In the U.S. some additional rights to displacement assistance are created by several non-employment-related government programs which include adjustment assistance provisions. Thus, only collective bargaining agreements and adjustment assistance programs significantly protect the American worker from the adverse employment effects of technological and organizational change, while European workers enjoy an array of job property rights at law.



## 2.1 Job Property Rights at Law

To highlight the significance of European job property schemes, we begin with an overview of the American law of employment relations. The discussion is limited to the rights incident to displacement or discharge, since displacement is the threat posed by agricultural mechanization.

### 2.1.1 The American Law of Employment Relations

American law has failed to keep pace with the growing industrial economy.<sup>6/</sup> There is no law of job property rights. The primary standard of American employment relations is the master-servant rule of a previous non-industrial era. Specific types of interference with the employment relationship are forbidden by tort, civil rights, and labor laws. There is no recognition of job tenure as an interest protectable in its own right. Labor law permits the creation of job property rights incident to displacement, but creates no such rights of its own. Only the (federal) adjustment assistance programs discussed later create legal rights incident to displacement. Given such limited legal protection, the diffusion of labor-saving technology can be a serious problem for the non-managerial worker.

The common law of employment relations is the master-servant rule of employment at will. According to the master-servant principle, employment is a relationship that the parties create or sever at will.<sup>7/</sup> A product of laissez-faire economics, it is based on the dubious premise that master and servant have equal bargaining power in the employment relationship because both have immediate access to alternate employments. In the language of the courts, employers "may dismiss their employees at will ... for good cause, for no cause, or even for cause morally wrong."<sup>8/</sup>

Tort law gives workers injured by the negligence of their employer or discharged because of third-party interference money damages for the loss of employment.<sup>9/</sup> Negligence actions against employers have been largely superseded by workers' compensation schemes which cover all employment-related injuries, not just those caused by employer negligence.

Discharge of employees not covered by collective bargaining agreements is permissible without cause or notice in all states. A few state statutes make employers' attempts to control their employees' political activities criminal offenses.<sup>10/</sup> Non-employment-related regulatory acts sometimes prohibit the discharge of an employee if the discharge is based on the employee's cooperation with the regulatory agency.<sup>11/</sup> Federal, state and local civil rights statutes prohibit discriminatory discharge based on race, color, national origin, religion, sex, age, physical handicap, or sexual preference.

The National Labor Relations Act (N.L.R.A.) and subsequent federal and state labor laws are the most direct attempts to regulate employment relations. It must be recognized, however, that labor legislation is confined almost exclusively to labor-management relations and does not fundamentally change the nature of the employment relationship. Moreover, its scope is limited to that minority of the workforce covered by current collective bargaining agreements. Addressing the effect of the N.L.R.A. on employment tenure, the United States Supreme Court said that "[t]he Act does not interfere with the normal exercise of the right of the employer to select his employees or discharge them."<sup>12/</sup> Labor legislation does not supplant the master-servant rule but permits unions and management to contract for alternate conditions of employment tenure.



The individual American worker has few job property rights at law.<sup>13/</sup> Various laws protect against interference with the employment relationship based on the personal characteristics or activities of the employee. Legal actions brought under those laws assign pecuniary values to job loss. The limited rights thus created, however, are valueless to the worker replaced by a machine.

#### 2.1.2 Job Property Rights in Europe

Discharged workers in Europe enjoy a significantly greater variety of job dismissal rights than their U.S. counterparts.<sup>14/</sup> A growing number of countries have restricted an employer's discretionary power over dismissal in recognition of the grave social and financial difficulties inherent in job loss. The purpose of such restrictions is not to prevent dismissals which are necessary to protect the interests of the employer and the economy but to mitigate the effects of necessary work force changes or reductions. Dismissals induced by economic, financial, operational and technological requirements are generally permitted, as they are considered to be the unavoidable consequence of productive economic growth. Two approaches are taken to mitigate the effects of such necessary changes. The first approach is to require that employers cooperate with worker representatives to avert or minimize work force reductions. The second is to require advance notice and other protective arrangements to cushion the adverse effects of necessary reductions. Many countries take both approaches.

Cooperative recourse to attrition arrangements, work-sharing, elimination of overtime, reduction of work hours, sub-contracting limitations, transfers, retraining and early retirement can reduce or prevent dismissals without prejudicing the efficient operation of an enterprise.



Recourse to such arrangements is promoted in many countries by laws which require consultation with worker representatives before dismissals are made. In some countries, dismissals must be authorized by a regional works council or other government agency. The agency may be limited to mediating discussions between employers and worker representatives, or it may have authority to directly influence the timing and nature of dismissal. The failure to obtain prior authorization may subject an employer to liability for special compensation, reinstatement of the discharged employee, or even penal sanctions. The required consultation with worker representatives and government agencies protects European workers against arbitrary and unnecessary dismissal.

The laws of many European countries require advance notice or wages in lieu of notice for all dismissals (with or without cause). The mandatory notice periods are usually calculated according to a statutory formula based on length of service and salary, position, and/or age. Other protective arrangements common required in Europe include guaranteed minimum wages and severance or redundancy allowances. Guaranteed minimum wages protect workers in periods of partial unemployment. Severance or redundancy payments, which are regarded as deferred compensation and compensation for job loss, generally supplement unemployment benefits. They are paid by employers, who in some countries are entitled to partial reimbursement from a national fund.

The job property rights created by law in Europe reduce the costs to European workers of technological and organizational changes. Many European workers do not have to rely on their ability to negotiate advance notice and severance pay since adequate levels of both are guaranteed by law. Job property rights created through collective

bargaining complement the minimum rights provided by law. The laws of many European countries also protect workers from arbitrary and unnecessary dismissals.

## 2.2 Privately-Negotiated Job Property Rights in the United States

One aspect of collective bargaining is resolution of the conflict between efficiency-driven management and security-seeking workers.<sup>15/</sup> If labor and management accept the premise that technological efficiency is vital to the growth of the industrial economy that sustains society, they must balance the conflicting interests of greater profits and displacement-associated losses. Many collective bargaining agreements in non-farm industries include provisions designed to mitigate labor displacement problems and create a cooperative atmosphere for the introduction of technological changes. These provisions represent a limited effort to divide the cost savings of technological change between employers and employees.

Labor unions are concerned with the effects of technological change on their members and the industries in which they work. Their ability to protect the interests of members is circumscribed by the willingness of employers to bargain over issues of technological change. There is substantial disagreement between courts and commentators over the scope of the duty to bargain over technological change.<sup>16/</sup> Indeed, most technological changes are not the subject of union-management bargaining. Where bargaining has occurred, studies show that contract clauses qualify, rather than prohibit, decisions to implement change<sup>17/</sup>, usually benefiting both labor and management. Unions gain a voice in the timing and rate of change, while developing new forms of job and income security, as well as devices to cushion impacts on displaced workers. Management finds a



more cooperative atmosphere in which to implement change and greater flexibility in making new work assignments.

Collective bargaining agreements govern adjustments to mechanization and technological change in three principal ways.<sup>18/</sup> Some contracts include general provisions to mitigate the effects of all instances of labor displacement. In other contracts the general provisions are specifically restricted to displacements caused by technologically-motivated changes. These two types of general adjustment provisions are similar in effect, the only difference being whether they specifically refer to mechanization as the activating event. Broad-scale automation programs, constituting a major portion of a particular contract, are the third type of contractual response to technological change. The West Coast Longshoremen's Modernization and Mechanization Agreement and the Meatpackers' Armour Automation Committee are familiar examples of broad-scale automation programs.

Union-management contracts in non-farm industries contain a vast assortment of general adjustment provisions covering a broad range of employment-related interests. Some of the provisions, such as advance notice<sup>19/</sup> and management rights<sup>20/</sup> clauses, govern union-management relations during periods of change. Others, such as transfer rights<sup>21/</sup>, early retirement<sup>22/</sup>, and extended vacation<sup>23/</sup> clauses, require resort to accelerated worker attrition in order to preserve jobs for incumbent workers. These clauses are often complemented by clauses requiring that incumbent workers be trained or retrained<sup>24/</sup> to fill attrition-created vacancies. There are numerous examples of income and work guarantees. Minimum income levels are maintained through weekly, monthly, quarterly, or annual wage guarantees<sup>25/</sup>, short week benefits<sup>26/</sup>, or displacement

differential payments.<sup>27/</sup> Job maintenance<sup>28/</sup> clauses forbid technologically induced work force reductions during the term of a particular contract and work sharing<sup>29/</sup> and subcontracting limitations<sup>30/</sup> clauses preserve jobs for incumbent workers. At least one contract has created a system for sharing the cost savings<sup>31/</sup> generated by the implementation of new processes. Many contracts provide separation payments to workers who are temporarily or permanently laid off. Supplemental unemployment benefits (SUB)<sup>32/</sup> supplement normal unemployment benefits during temporary periods of unemployment. SUB funds may also provide education and training expenses, Hospitalization and health insurance and relocation allowances<sup>33/</sup> for workers who are temporarily laid off. Lump-sum severance pay<sup>34/</sup> is given to workers who are permanently discharged. Discharged employees are sometimes put on employment reserve lists<sup>35/</sup> which given them priority of recall or rehire, or they can receive management assistance in finding employment opportunities outside the company.<sup>36/</sup> Some multi-employer contracts also provide for the transferability of pension and seniority rights and other benefits<sup>37/</sup> when workers transfer to another participating employer. These general adjustment provisions and their variations represent a compromise between management prerogative and worker protection. When they are negotiated, general adjustment provisions provide a means of equitably dividing the benefits of technological progress between workers and industries.

The difference between the general adjustment provisions and the third type of displacement adjustment, the broad-scale automation projects, is primarily one of degree. The comprehensive automation projects utilize a variety of the general adjustment provisions in concert to cushion the effects of large-scale labor displacement and are often the most prominent feature of a particular contract.



The Mechanization and Modernization Agreement<sup>38/</sup> entered by the West Coast Longshoremen and the Pacific Maritime Association (PMA) in 1960 is one of the most celebrated of the broad-scale automation plans.<sup>39/</sup> For many years the powerful International Longshoremen's and Warehousemen's Union (ILWU) had resisted major cargo-handling changes, e.g., containerization, with restrictive work rules. Under the agreement, the PMA "bought out" the job property rights that such work rules had created.<sup>40/</sup> The ILWU gave up all unnecessary and restrictive work rules in exchange for a guarantee that no member of the preferred class of longshoremen, the fully registered union members, would be laid off as a result of productivity increases or mechanization. Their employers agreed to contribute \$29,000,000 over a five and one-half year period to a trust fund established to finance new and improved benefits for fully registered longshoremen. The benefits included a guaranteed average weekly wage (which the union considered to be the "sale price" of workers' property rights) and early retirement and increased retirement, disability, and death benefits, which represented the workers' "share of the machine".<sup>41/</sup>

The Armour Automation Committee and Fund, another well known broad-scale automation project, was established in 1959 to study the problems resulting from Armour and Company's mechanization of its meat-packing facilities and to recommend adjustment provisions that could be adopted in formal bargaining.<sup>42/</sup> Four Armour representatives, four union representatives and an impartial chairperson were appointed to the committee, which was financed by a \$500,000 grant from Armour. The Committee sponsored studies by neutral experts to explore means of alleviating the problems generated by mechanization.<sup>43/</sup> Based on those studies, it recommended advance notice, severance pay, early retirement, interplant seniority and

transfer rights and supplemental unemployment benefit provisions which were adopted in collective bargaining agreements. It also conducted "crash" programs<sup>44/</sup> of job placement and training to facilitate the re-employment of workers displaced in the shutdowns of five Armour plants in the early 1960's.<sup>45/</sup> It enlisted the cooperation of state employment agencies, financed occupational and basic education courses for displaced workers, and conducted its own placement and training services.

Privately negotiated displacement rights offer workers some protection from the adverse effects of technological change, but the degree of protection is circumscribed by the ability of the representative union to negotiate adjustment provisions. Moreover, privately negotiated rights only serve that minority of the American work force that is covered by current collective agreements.

### 2.3 Federal Adjustment Assistance Legislation

Although the principle of protecting all workers from the effects of industrial adjustments beyond their control has not taken root in the common or statutory law of the United States, the principle of protecting workers affected by industrial adjustments made under the aegis of federal law has been legislatively sanctioned for more than thirty years. Since 1940, railroad workers have enjoyed federal protection from the adverse employment effects of railroad consolidations under the Interstate Commerce Act.<sup>46/</sup> There are many other acts which are primarily directed to the achievement of a non-employment-related social or economic objective, but which include adjustment assistance as a supportive or secondary objective. The adjustment assistance benefits individual members of special labor force groups adversely impacted by the achievement of legitimate federal objectives.



There are several rationales for the provision of federal adjustment assistance. One is concern that federal funds not be used in a manner that is directly or indirectly detrimental to legitimate worker interests and rights. The legislative programs to which Congress has appended adjustment assistance schemes are programs that potentially involve the sacrifice of workers' employment and security interests for the long-term benefit of employers and society at large. Adjustment assistance benefits reduce the involuntary sacrifice of individual workers. A second justification for adjustment assistance is that the benefits accruing to employers and society as a result of the federal legislative programs far outweigh the costs of financing special programs to facilitate the adjustment of workers to more socially and economically productive businesses. Another factor that compels the provision of some form of adjustment assistance is the special nature of some kinds of worker displacement. When a government action is involved, it is likely that entire industries or occupations will be affected, not just individual employers. Workers with particular skills or experience may not have a realistic opportunity to find other jobs using those same skills and experience, particularly when the experience is not readily adaptable to other occupations (e.g., a college education is more adaptable than experience as a railroad conductor or tomato harvester). Moreover, the reabsorption of displaced workers is retarded when displacement is concentrated in a particular locale or in times of high unemployment. Adjustment assistance statutes help workers adjust to the new labor demands created by government policies.

The acts which include adjustment assistance programs serve a wide variety of federal interests, from juvenile justice to foreign

trade. The forms of adjustment assistance under federal law are as diverse as the forms of adjustment negotiated through private collective bargaining agreements.

The Water and Air Pollution Prevention and Control Acts<sup>47/</sup> permit the Administrator of the Environmental Protection Agency (EPA) to hold hearings and make recommendations on the employment effects of federal pollution administration and standards.<sup>48/</sup> Individual workers who believe they were displaced by the enforcement of effluent and emission limits may initiate an investigation and hearing by the EPA Administrator. At the request of any involved party, the hearing will be public and on the record. Under both acts the EPA Administrator is required to make findings of fact on the particular employment effect and is authorized to make such recommendations as he or she deems appropriate. The Administrator is not authorized to modify or withdraw any pollution requirement and the provision of any adjustment assistance is discretionary. The Air Pollution Act also provides that an employee's pay may not be reduced by reason of the use of certain specific pollution control systems.<sup>49/</sup>

Three acts which allow states to apply for federal aid for the improvement of juvenile and mental and developmental health facilities<sup>50/</sup> also insure individual jobs. As a condition precedent to the granting of aid, the state must submit a plan which specifies the arrangements made to protect potentially displaced workers.<sup>51/</sup> All three acts require that the institutions ultimately receiving federal funds design fair and equitable programs to protect the interests of employees, including arrangements designed to preserve employee rights and benefits and to provide training and retraining where necessary. The Juvenile Justice



and Delinquency Prevention Act requires additional provisions for the continuation of collective-bargaining rights, the protection of individual employees against a worsening of their positions, and assurances of employment to affected state employees. Under the Juvenile Justice Act, protection must be to the maximum extent feasible and under the Mental and Developmental Health Acts, the protection must be approved by the Secretary of Health, Education and Welfare, after consultation with the Secretary of Labor.

Three acts condition the receipt of federal funds for the rehabilitation, maintenance, improvement and development of mass transportation systems on the provision of protective arrangements for affected employees.<sup>52/</sup> Contracts granting federal assistance under the Urban Mass Transportation Act and the High-Speed Ground Transportation Act must specify terms and conditions of employee protection for at least six years.<sup>53/</sup> They must include fair and equitable arrangements including (at least) such provisions as are necessary for the preservation of employee rights, privileges, and benefits (including continuation of pension rights and benefits), the continuation of collective bargaining rights, protection of individual employees against a worsening of their employment position, assurances of priority of re-employment of employees terminated or laid off, and paid training or retraining programs. Railroads seeking federal aid under Title V of the Railroad Revitalization and Regulatory Reform Act must enter agreements with representative unions to provide fair and equitable arrangements for affected employees.<sup>54/</sup> The arrangements must include provisions necessary for the preservation of compensation (including subsequent general wage increases, vacation allowances and monthly compensation guarantees), rights, privileges and benefits (including fringe benefits), for final and binding arbitration

of unsettled disputes concerning the arrangements, and for reassignment and retraining. Under all three of the acts, the provisions must be approved by the Secretary of Labor and, in the absence of an abuse of discretion, the Secretary's approval is not judicially reviewable.<sup>55/</sup>

In order to receive regulatory approval of railroad consolidations and mergers under the Interstate Commerce Act<sup>56/</sup> and for participation in the Amtrak<sup>57/</sup> consolidation under the Rail Passenger Service Act<sup>58/</sup>, railroads must provide fair and equitable arrangements for affected employees<sup>59/</sup> for at least six years.<sup>60/</sup> The protective mandates are similar to those required under the mass transportation acts, including arrangements for the preservation of rights, privileges, and benefits (including continuation of pension rights and benefits), the continuation of collective bargaining rights, protection of individual employees against a worsening of their employment provisions, assurances of priority of re-employment of employees terminated or laid off, and paid training or retraining programs. The arrangements are to be formalized in agreements with the representative unions and are subject to the approval of the Interstate Commerce Commission or Secretary of Labor with judicial review available only in the event of an abuse of administrative discretion.<sup>61/</sup>

Adjustment assistance under the Regional Rail Reorganization Act<sup>62/</sup> (ConRail Act) and the Trade Act of 1974<sup>63/</sup> (which replaced the Trade Expansion Act of 1962)<sup>64/</sup> is quite different than the adjustment assistance provisions previously discussed. The primary difference is that the ConRail and Trade acts prescribe pecuniary compensation for the loss of employment interests and job loss. Both of the compensation schemes are financed through federal revenues.



ConRail is a private, for-profit corporation created under the Regional Rail Reorganization Act to preserve essential rail services in the midwest and northeast regions of the U.S.<sup>65/</sup> The adjustment assistance provisions of the ConRail Act<sup>66/</sup> protect the employees of any railroad acquiring or selling property under the act and the employees of all railroads in reorganization in the region. ConRail is required to offer employment to all workers employed by railroads in reorganization effective as of the date of conveyance to ConRail or discontinuation of service. No protected employee may be placed in a worse position with respect to compensation, fringe benefits (including pension benefits), work rules, working conditions and rights, and privileges; except to the extent that displacement-compensation benefits compensate for lost employment interests. The displacement benefits include a monthly allowance (set at 100 percent of former earnings) until age 65, death, retirement, resignation, or dismissal for cause. The monthly allowance must be adjusted to reflect subsequent general wage increases and are reduced dollar-for-dollar if unemployment compensation is received and 50 percent if an individual has non-railroad earnings. Protected employees who change residence because of a transaction under the act are entitled to reimbursement for moving expenses and losses on the sale of their homes. Lump-sum severance payments are mandated for employees who resign. The railroads must pay all allowances and benefits to their employees subject to reimbursement from an account on the books of the U.S. Treasury, which is initially funded by Congressional appropriation.

Adjustment assistance under the Trade Act of 1974<sup>67/</sup> offers "special protection and help to American workers whose unemployment or underemployment is linked to increased imports".<sup>68/</sup> Benefits under the

Trade Act are not automatic; a group of three or more workers (or their representative) must petition for eligibility certification by the Secretary of Labor. The Secretary must certify that a particular group of workers has been partially or totally separated because of an absolute decrease in the production or sale of a product they manufacture as a result of increased imports of products like or directly competitive with the domestic product. Workers who are members of certified groups are eligible for a variety of cash and service benefits. The primary benefit is a weekly trade readjustment allowance equal to 70 percent of the worker's average weekly wage (up to the average weekly wage in manufacturing). The allowance is reduced dollar-for-dollar if unemployment compensation is received and by 50 percent if an individual has other earnings. Trade readjustment allowances continue for up to 52 weeks of un- or underemployment, and for 26 additional weeks for workers who are over 60 years old or enrolled in training courses. Other benefits available under the Trade Act include reimbursement for 80 percent of job search or moving expenses, eligibility for participation in state and CETA employment placement and training services, and training allowances for workers in approved training programs. The benefits are administered and distributed by state employment services under agreements entered with the Secretary of Labor. The state agencies are entitled to reimbursement for benefits paid from a trust fund in the U.S. Treasury which is funded by annual appropriations from collections of customs duties. The Trade Act provides for judicial review of the eligibility certification and distribution processes. Trade adjustment assistance is sometimes regarded as a precursor to a general policy capable of dealing with involuntary displacement caused by structural shifts in the economy.



The federal adjustment assistance statutes help workers in special labor force groups adjust to new labor demands created by pursuit of social and economic policies. They demonstrate concern that federal resources should not be used for programs benefiting society at large, when such programs also have detrimental effects on the lives of individual workers. The use of general tax revenues to finance the development of mechanized farm equipment has the same potential for sacrificing the interests of farm laborers in order to benefit corporate farmers, processors, machinery manufacturers, and consumers at large. The public subsidy to mechanization research, the limited education and skills of farm laborers, the high unemployment rate, and the spatial concentration of fruit and vegetable production make some form of adjustment assistance for farmworkers particularly apposite.

### 3. Agricultural Mechanization and Public Policy

Farm mechanization, prompted in part by publicly-supported agricultural research, displaces hired farm labor. Farmworkers displaced enjoy few legislative or private contract rights to adjustment assistance, which could cushion their unemployment between jobs. Studies of displaced workers in other industries show that the typical individual permanently displaced suffers real income and psychological losses. This section explores the implications of adjustment assistance for farm labor in California.

Any adjustment assistance mechanism must address three basic issues: (1) how many workers are displaced; (2) what are the income losses of those displaced; and (3) who is eligible for various types of adjustment assistance. The first two issues are primarily empirical; adjustment assistance plans fall within the ambit of public policy.

The number of persons displaced by any particular mechanization depends on the (previous) labor-intensity of crop production and the labor-saving qualities of the machine. However, the total number of persons displaced is a misleading indicator of individual and social hardship. Voluntary job changes and "natural" labor force attrition through death and retirement reduce the real labor impacts of mechanization. Labor force mobility reduces mechanization's impacts just as immobility increases hardship. Re-employment difficulties increase with age and aggregate unemployment and are greater if the displaced individual has less education and fewer skills, language difficulties, or personal traits which limit mobility to other areas or jobs.

If necessary labor force reductions can be accomplished through "natural" attrition, (as farmworkers find nonfarm jobs), the labor costs of mechanization are shifted from the extant labor force to potential



labor force entrants. Some observers argue that those who do agricultural work are "locked in" and unable to find nonfarm work without assistance. The composition and mobility patterns of the hired farm workforce are not known with certainty. It is apparent that off-farm labor mobility is sometimes limited by age, lack of education or relevant skills, language barriers, and labor market discrimination. These workforce factors tend to increase the adverse impacts of labor displacement. Other factors reduce adjustment costs. Some 700,000 individuals do some farmwork for wages each year in California, but most farmworkers are young and engaged in agricultural work for less than five days. Fringe benefits and job tenure arrangements are sparse, making the losses of long-time farmworkers closely approximate those of new entrants to the farm workforce. Prediction of adjustment costs in agriculture based on the characteristics known to affect individual losses in the nonfarm sector is constrained by our limited knowledge about the hired farm workforce, but it is clear that factors working to both increase and decrease costs are present.

The number and characteristics of those displaced provide one important dimension for assessing agricultural mechanization. A second issue is the income loss suffered by typical individuals or cohorts. Most agricultural crops are produced in three distinct phases: pre-harvest, harvest, and post-harvest operations. Since the harvest is typically the most labor-intensive phase of agricultural production, most mechanization efforts, and most labor displacement, occurs when the harvest is mechanized. But crop harvests are of limited duration, typically six weeks or less. Thus, an individual displaced as a result of harvest mechanization in a single crop can (directly) lose only six weeks of potential income, 11 percent of potential work time. Since the individual is presumably engaged

in other farm or nonfarm work (or is unemployed) during the other 46 work weeks, it is apparent that agricultural work patterns guarantee multiple income streams. Since income is derived from several sources, the loss of any one source due to mechanization is automatically cushioned, to some extent, by the other income streams.

The fact that agricultural workers obtain income from several sources, and that mechanization typically eliminates only one income source in any year, does not mean that mechanization minimizes real income losses. Most farmworkers have low annual incomes, and the income derived from a six-week harvest may constitute 20, 30, or even 40 percent of an individual's total annual income. Some farmworkers (about 8 percent nationwide) are migratory, and the mechanization of one crop harvest may interrupt a work pattern which permits the farmworker to move from crop to crop. When farmworkers work in family units, mechanization may eliminate the better-paying male jobs while preserving those of teenagers and females.

Precise data on average annual earnings among California farmworkers are unavailable. California dominates a nationwide survey of hired farm labor in the West, which estimates average 1973-75 hired farm employment at 700,000 persons. Hired farmworkers in the western states averaged 105 days of farmwork and 41 days of nonfarm work in 1975, providing average incomes of \$2,157 and \$908 from farm and nonfarm work, respectively. Since the median daily farm wage for males was \$20 in the West, six weeks of harvest work (with six day weeks) would result in farm earnings of \$720, or 33 percent of the average farmworker's total income from farmwork. Multiple income sources mitigate, but in no way eliminate, the income losses suffered by farmworkers displaced by mechanical harvesting equipment.



The number of persons displaced and their average earnings losses define the extent of worker income losses emanating from harvest mechanization. Given the existence of such losses, should "adjustment assistance" be provided? If adjustment assistance is provided, several operational questions arise. Who is eligible for assistance, e.g., those with some minimum duration of agricultural employment or all ex-farmworkers? How much assistance is provided, e.g., 100 percent of earnings losses or some fraction? In what form should assistance be given, e.g., retraining and extended unemployment insurance or a lump-sum payment? Finally, how should adjustment assistance be financed, through e.g., a tax on machines, on the product mechanically harvested, or with general tax revenues?

Justification for providing adjustment assistance to displaced individuals derives from several premises. Since society as a whole benefits from reduced production costs in competitive markets, it is argued that society at large should provide assistance to all unemployed persons, regardless of the source of unemployment. This "universal eligibility" belief operates through effective pursuit of full employment and "active manpower policies," which provide unemployment insurance benefits at levels close to the average wage, subsidized retraining and relocation, and extensive counseling and placement services. Active manpower policies emphasizing full employment and a variety of retraining and relocation services are common in Europe, notably Sweden.

A second justification for adjustment assistance derives from the "job property rights" each individual is assumed to possess. Ideally, individuals selecting between alternative employments compare both wages and the stability of the wage over time. But the individual typically holds only one job, thus prohibiting him/her from diversifying and reducing risks, as

an owner of capital does by holding a diversified portfolio. The inability of the individual to diversify and reduce income risks as a worker can justify a scheme of legal rights to existent jobs. For example, before an individual worker can be terminated, severance pay and/or adjustment assistance could be required. In America, some form of job property right is found in about 70 percent of all collective bargaining agreements, although many clauses merely require advance notice of termination. In Europe, notice before layoff and mandatory severance pay are standard features of protective labor laws.

Job property rights can assume various forms. At one extreme, an employer's current labor force can be protected against job loss by requiring "social impact statements" which detail both the employment consequences of any planned change and the efforts which will be undertaken to ameliorate these consequences. At the other extreme, a job property right may be the minimal requirement of advance notice (e.g., 30 days) before an individual may be permanently discharged because of mechanization or organizational changes. An array of intermediate rights have been suggested or are now in force.

The case for some form of job property rights in agriculture rests on the public subsidy to agricultural research and the benefits thought to redound to society through the operation of competitive markets. Public monies are used to fund basic engineering and biological research, and the efforts of extension personnel often accelerate the diffusion of resulting innovations among farmers. Some farm labor displacement can be traced, directly or indirectly, to the publicly-subsidized research. Since public policies should not aid one group (growers, machinery producers, and consumers) at the expense of another (farmworkers), it is argued



that public subsidies to agricultural research inevitably create public culpability for the hardships of displaced farmworkers.

If some form of adjustment assistance were granted farmworkers, i.e., if some set of job property rights were assigned hired farmworkers, several pragmatic issues would arise. Any compensation policy would need a definition of agricultural labor. Since a majority of farmworkers are employed less than 30 days in agriculture, a program which limited eligibility to "regular" farmworkers would omit a significant share of the farm workforce. Alternatively, a compensation program providing benefits to all those who did any farm work could encourage some persons to do farm work only to qualify for compensation after mechanization. A generous, effective program limited to "full-time" farmworkers may be inequitable to the majority of short-term individuals, but inclusion of these "casual" farmworkers may greatly increase the number of eligible individuals and thus program costs.

After eligibility criteria are defined, any compensation proposal must establish individual benefit levels. Since benefit levels will influence the program's total costs and the chances for successful transitions to non-farm employment, choices between lump-sum payments and extended unemployment insurance, between nonfarm and farm training services, and between relocation and local re-employment efforts must be made. Decisions concerning requisite job search efforts and requirements defining when alternative jobs must be taken are necessary. In designing any program, the cost trade-off between the staff necessary for personal attention versus simple income supplements must be weighed.

Because the California farm labor force is less than 3 percent of the California workforce on an annual average basis, the cost of any adjustment assistance program designed and operated only for farmworkers

may be high on a "per-person helped" basis. The potential complexity and cost of a farmworker specific program have led some to advocate mandatory Social Impact Statements before public monies can be committed to agricultural research. Such statements, similar to Environmental Impact Statements, would attempt to anticipate the displacement consequences of any research effort before the research was undertaken. Research results are uncertain, making the value of long-term predictions dubious. Even if one could accurately assess the consequences of a research effort, it would be difficult to actually predict the timing of displacement. Since re-employment ease or difficulty is critically dependent on the time and extent of displacement--low unemployment rates or limited displacement in any area make re-employment easier for individuals--any Social Impact Statement would have to forecast both macroeconomic conditions and the rate of machine adoption in addition to predicting the duration and success of the research. Moreover, such a statement fails to identify the specific individuals who would be eligible for assistance.

The real key in assessing agricultural research may lie not in predictions made at the outset of research but rather in the predictions made before diffusion occurs. In many instances, machines which can reduce labor usage exist, but are not adopted until wage costs make machine use more profitable or improvements in the machine make mechanical harvesting economically viable. If society is to exert some control over the pace and extent of agricultural mechanization, it may be more efficacious to focus on the determinants of innovation diffusion rather than attempting to predict research success.

The concepts of job property rights and impact statements derive from the legal principle of culpability for damage. If the public universities



are in some way responsible for displacing farmworkers, then the public is assumed to incur some responsibility for the fate of those displaced. Such a legal approach to the issue raises a host of issues. How much responsibility is incurred? How direct must the link between research and displacement be? Should any such "labor responsibility" rest with the researchers or in a specially created university or state office? It should be noted that, e.g., federal safety and environmental regulations sometimes result in temporary unemployment or permanent displacement, yet the agencies initiating such displacing changes refer individuals displaced to Department of Labor programs.

If the concept of culpability were exorcised from farm mechanization discussions, the issue could be seen as one in which society is pursuing incompatible social goals. Society strives for both full employment and increased agricultural productivity. These goals must inevitably collide. In other instances of incompatible social goals, society has acknowledged that the achievement of one goal results in hardship for some individuals and has sought to cushion their losses. Under the Trade Adjustment Assistance Act (1974), society has recognized that the lowering of tariffs and quotas can permit imported products to displace workers in competing domestic industries. If workers are displaced because of import competition, they are entitled to supplemental unemployment insurance benefits, retraining and relocation allowances, and counseling services. Similarly, a pending bill to expand the Redwoods National Park (preserving natural resources) includes funds to aid any loggers and sawmill workers who may be displaced when park expansion halts timber operations on the new park acreage.

Similar arguments could be adduced to bring hired farm labor under the ambit of an assistance program. Under a "competing social goals" justification society at large, rather than universities, farmers, or machine manufacturers, would bear the cost of retraining and/or relocating displaced farmworkers. Many manpower researchers argue that the concept of culpability should be eliminated when designing and administering labor market programs, that the source of unemployment should be irrelevant for obtaining labor market assistance. In a socialistic economy, productivity increases which displaced labor would be automatically included in the social welfare function which relates changes in all sectors. The fact that the gainers and losers in agricultural mechanization are often distinct and separate complicates but does not make a remedial policy impossible.

The economic system operates to increase both individual and social welfare. During its evolution, structural changes are required. These structural changes, including the movement of labor from agriculture to the manufacturing and service sectors, increase long-term social welfare but impose adjustment costs on individuals. Few would argue that this inevitable structural transformation should be halted, that farmworkers should remain farmworkers. What has been shown is the existence of individual adjustment costs in the course of an agricultural transformation, a transformation often expedited by public policies. Rather than arguing about blame in specific (past) instances of mechanization, both farmworkers and society may be better-off if energies are directed toward designing programs which reduce the hardship accompanying inevitable labor displacement. Past investments in agricultural research have returned high social dividends. Investments in people promise the same high returns.



# NOTES

1/ In agriculture, changes in consumer preferences will not necessarily result in labor displacement. If the demand for one crop decreases, growers can simply plant another. If the substitute is as labor-intensive as the original crop, no labor displacement need result. Thus, if land remains "fully employed", changes in consumer preferences will not necessarily result in farm labor displacement.

2/ It should be noted that tariffs and quotas are sometimes enacted in order to protect the domestic labor force from import competition, especially during the early stages of industrial development ("infant-industry" protections).

3/ Anti-trust officials may evaluate a proposed merger for its impact on output market competition, but not for its labor-displacing qualities.

4/ It is sometimes argued that the absence of mechanization will still displace domestic farmworkers because crop production will shift abroad, where wage rates are lower. It is ironic to note that such crop shifts may leave the displaced workers better off, since they may be able to claim adjustment assistance under the Trade Adjustment Assistance Act (1974).

5/ The lack of control over the future may be extended from individuals to communities in the event a company decides to close a plant. In one such instance, the closing of a (profitable) tube-manufacturing plant in Indianapolis, local resentment escalated because the closure decision was perceived as a case in which "faraway executives of a giant corporation had decided to rid themselves of what to them was just another plant in the hinterland". Wall Street Journal, March 22, 1978, p. 1.

6/ Address by Secretary of Labor Goldberg, American Law Institute (May 19, 1961) reprinted in 45J. of the Amer. Jud. Soc. 56, 60 (1961).

7/ "Towards a Property Right in Employment", 22 Buff. L.R. 1081, 1082-83 & n. 10 (1973) [hereinafter cited as "Towards a Property Right"].

8/ Payne v. Western & A.R.R., 81 Tenn. 507, 51920 (1884), overruled on other grounds, quoted in Blades, "Employment at Will vs. Individual Freedom: On Limiting the Abusive Exercise of Employer Power", 67 Colum L.R. 1405, 1411-12 (1967).

For more recent judicial expressions of the same principle, see Weyand, "Present Status of Individual Employee Rights", 22 N.Y.U. Conf. on Lab. 171, 175 n. 15 (1969) [hereinafter cited as Weyand, "Present Status"].



9/ W. Prosser, Law of Torts, § 129 (4th ed. 1971).

10/ See "Towards a Property Right" at 1090-92.

11/ See e.g. 33 U.S.C. § 1367 (a) (that employees may not be fired or in any other way discriminated against for cooperating with the enforcement of the Water Pollution Prevention and Control Act, 33 U.S.C. §§ 1251-1376).

12/ N.R.L.B. v. Jones & Laughlin Steel Corp., 301 U.S. 1, 1 LRRM 703 (1937).

13/ For commentary on the creation of job property rights at law, see generally Blades, "Employment at Will"; Reich, "The New Property", 73 Yale L.J. 733 (1964); Weyand, "Present Status"; "Towards a Property Right"; "Unemployment as a Taking Without Just Compensation", 43 S. Cal. L.R. 488 (1970); but see "Constitutional Law--Due Process--Property Interest--Government Employment--State Law Defines Limitation of Entitlement", 1977 Wis L.R. 575 (1977).

14/ The discussion of job property rights in Europe is derived from the following sources: C. Grunfeld, The Law of Redundancy (1971); International Bar Association, International Handbook on Contracts of Employment (1976); International Labour Organization, Social Security for the Unemployed (1976); Carr, "Summary of Labor Law Practices and Procedures", 3 Int. Bus. Lawyer 61 (1975); and Yemin, "Job Security: Influence of ILO Standards and Recent Trends", 113 Int. Lab. R. 17 (1976).

15/ N. Chamberlain and D. Cullen, The Labor Sector (2d ed. 1971) [hereinafter cited as Chamberlain, The Sector].

16/ Note, "Automation and Collective Bargaining", 84 Harv. L.R. 1822, 1824 (1971).

17/ Chamberlain, The Sector at 246.

18/ The Diebold Institute for Public Policy Studies, Labor-Management Contracts and Technological Change: Case Studies and Contract Clauses (Blitz, ed., 1969) [hereinafter cited as The Diebold Institute for Public Policy Studies, Labor-Management Contracts]. See generally Perline and Tull, "The Impact of Automation on Collective Bargaining Agreements", 19 Lab. L.J. 112 (1968).

19/ See The Bureau of National Affairs, Collective Bargaining Negotiations and Contracts: V. 2 Basic Patterns, Clause Finder 60:2 (1975) [hereinafter cited as The Bureau of National Affairs, Basic Patterns]; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 13.

20/ See The Bureau of National Affairs, Basic Patterns at 65:2; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 12.



21/ See The Bureau of National Affairs, Basic Patterns at 60:241 and 60:261; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 17. See generally Weber, "The Interplant Transfer of Displaced Employees" in Adjusting to Technological Change 95 (Somers, Cushman and Weinberg, eds., 1963) [hereinafter cited as Adjusting].

22/ See The Bureau of National Affairs, Basic Patterns at 48:4; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 14.

23/ See The Bureau of National Affairs, Basic Patterns at 91:325-26; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 15.

24/ See The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 16.

25/ See The Bureau of National Affairs, Basic Patterns at 53:201, 53:301, 53:401; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 17.

26/ See The Bureau of National Affairs, Basic Patterns at 53:7; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 18.

27/ See The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 11, 18.

28/ See Id. at 18.

29/ See The Bureau of National Affairs, Basic Patterns at 60:301; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 17.

30/ See The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 20.

31/ The United Steel Workers of America and Kaiser Steel Corporation, October 26, 1959, Agreement, and October 22, 1965 Agreement printed in The Diebold Institute for Public Policy Studies, Labor-Management Contracts at Appendix A, 103-44, Appendix C, 149-64.

32/ See The Bureau of National Affairs, Basic Patterns at 53:4-8; 53:601; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 19-20. See generally Backman, "Estimating Costs of SUB", 8 N.Y.U. Conf. on Lab. 255 (1956); Pierce, "The New Look in Collective Bargaining Agreements: A Study of Supplemental Unemployment Benefit Plans", 3 How. L.J. 42 (1957); Backman, "Financial Cushions for Technological Unemployment and Their Integration", 15 N.Y.U. Conf. on Lab. 175 (1963); Becker, Boman "Supplementary Unemployment Benefits" in In Aid of the Unemployed at 112-32 (Becker, ed. 1965); The Bureau of National Affairs,



Collective Bargaining Negotiations and Contracts: V. 1 Techniques and Trends 16:821-24 (1969).

33/ The Bureau of National Affairs, Basic Patterns at 53:601.

34/ See The Bureau of National Affairs, Basic Patterns at 53:2-4, 53:51; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 19-20. See generally Rottenberg, "Property in Work: A Comment", 16 Ind. and Lab. Rel. R. 279 (1963); Cohen, "Property in Work versus Property in Jobs: A Comment", 16 Ind. and Lab. Rel. R. 281 (1963); Feinberg, "Do Contract Rights Vest" 16th Annual Meeting, National Academy of Arbitrators in Labor Arbitration and Industrial Change (1963); Backman, "Financial Cushions for Technological Unemployment and Their Integration", 15 N.Y.U. Conf. on Lab. 175 (1963); Beidman, "Private Programs of Aid for the Permanently Terminated Worker" in In Aid of the Unemployed (Becker, ed. 1965); The Bureau of National Affairs, Collective Bargaining Negotiations and Contracts: V. 1 Techniques and Trends 16:821-22 (1969).

35/ The Bureau of National Affairs, Basic Patterns at 60:361; The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 17.

36/ The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 11.

37/ The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 20-21.

38/ International Longshoremen's and Warehousemen's Union and Pacific Maritime Association, Memorandum of Agreement on Mechanization and Modernization, January 1961-June 1966 (Oct. 18, 1960) printed in The Diebold Institute for Public Policy Studies, Labor-Management Contracts at Appendix F, 202-13.

39/ See generally The Diebold Institute for Public Policy Studies, Labor-Management Contracts; P. Hartman, Collective Bargaining and Productivity: The Longshore Mechanization Agreement (1969); Goldberg, "Longshoremen and the Modernization of Cargo Handling in the United States", 107 Int. Lab. R. 253 (1973) [hereinafter cited as Goldberg, "Longshoremen"]; and Ross, "Waterfront Labor Response to Technological Change: A Tale of Two Unions", 21 Lab. L.J. 397 (1970) [hereinafter cited as Ross, "Waterfront Labor"].

40/ Goldberg, "Longshoremen" at 257.

41/ Fairly, "The ILWU-PMA Mechanization and Modernization Agreement: An Evaluation of its Experience Under the Agreement; The Union's Viewpoint", Proceedings, 16th Annual Meeting, Industrial Relations Research Association 41 (1963) cited in Ross, "Waterfront Labor" at 412.

42/ See generally The Diebold Institute for Public Policy Studies,



Labor-Management Contracts at 38-55; Young, "The Armour Experience" in Adjusting at 144-158.

43/ The six study topics were: 1) the economic prospects for the meat industry from 1960 to 1975, 2) the experience of Armour employees displaced in 1959, 3) the problems of interplant transfer, 4) the problems of advance notice, 5) the work skills required for the maintenance of the automated equipment, and 6) an analysis of Armour's severance pay provisions. The Diebold Institute for Public Policy Studies, Labor-Management Contracts; Young, "The Armour Experience", in Adjusting at 146.

44/ George P. Shultz, Cochairman of the Armour Automation Committee at the time of the Fort Worth plant shutdown, described the Fort Worth project as a "crash" program. Report of the Armour Automation Committee (Nov. 7, 1964) (prepared by George P. Shultz) excerpted in "The Fort Worth Project of the Armour Automation Committee", 87 Mon. Lab. R. 53 (1964) [hereinafter cited as Shultz, "Fort Worth Project"].

The other programs can be equally well described as crash programs since each was created in response to a specific plant closure.

45/ The five Armour plant shutdowns that the Armour Automation Committee participated in were Oklahoma City (1960, Birmingham (1961), Forth Worth (1962), Sioux City (1963), and Kansas City (1964-65).

See The Diebold Institute for Public Policy Studies, Labor-Management Contracts at 38-55; Young, "The Armour Experience" in Adjusting at 144-158; Shultz, "Fort Worth Project"; and Stern, "Consequences of Plant Closure", VII J. of Hum Res. 1.

46/ Pub. L. 76-785, Sept. 18, 1940, 54 Stat. 905; 49 U.S.C. § 55.

47/ Water Pollution Prevention and Control Act, Amendments of 1972, Pub. L. 92-500, October 18, 1972, 86 Stat. 890; Air Pollution Prevention and Control Act, Clean Air Act Amendments of 1977, Pub. L. 95-95, 91 Stat. 685.

48/ Water Pollution Prevention and Control Act, 33 U.S.C. § 1367 (e); Air Pollution Prevention and Control Act, 42 U.S.C. § 7621.

49/ 42 U.S.C. § 7410 (a) (6).

50/ Juvenile Justice and Delinquency Prevention Act of 1974, Sept. 7, 1974, Pub. L. 93-415, 88 Stat. 1109; Developmental Disabilities Services and Facilities Construction Act, Oct. 4, 1975, Pub. L. 94-103, 89 Stat. 490; Special Health Revenue Sharing Act of 1975, July 29, 1975, Pub. L. 94-63, 89 Stat. 304.

51/ Juvenile Justice and Delinquency Prevention Act of 1974, 42 U.S.C. § 5633 (a) (17); Developmental Disabilities Services and Facilities Construction Act, 42 U.S.C. § 6063 (b) (29); Special Health Revenue Sharing Act of 1974, 42 U.S.C. § 246 (d) (2) (D) (i) (II).

52/ Urban Mass Transportation Act of 1964, July 9, 1964, Pub.L.



88-365, 78 Stat. 305; High-Speed Ground Transportation Act, Sept. 30, 1965, Pub. L. 89-220, 79 Stat. 893; Railroad Revitalization and Regulatory Reform Act of 1976, Title V., Feb. 5, 1976, Pub. L. 94-210, 90 Stat. 82.

53/ Urban Mass Transportation Act, 49 U.S.C. § 1609; High-Speed Ground Transportation Act, 49 U.S.C. § 1636.

54/ Railroad Revitalization and Regulatory Reform Act of 1976, 45 U.S.C. § 836.

55/ Kendler v. Wirtz, C.A.N.J. 1968, 388 F. 2d 381 (certification of the Secretary of Labor that "fair and equitable arrangements" within the meaning of the Urban Mass Transportation Act had been made to protect railroad workers was not judicially reviewable); accord, Congress of Railroad Unions v. Hodgson, 327F Supp. 68 (certification of Secretary of Labor under Rail Passenger Service Act of 1970 not judicially reviewable).

56/ Interstate Commerce Act, Feb. 4, 1887, c. 104, Pt. I § 5, 24 Stat. 380, amended by Railroad Revitalization and Regulatory Reform Act of 1976, Title IV, Feb. 5, 1976, Pub. L. 94-210, 90 Stat. 62.

57/ See generally Adams, "The National Railroad Passenger Corporation--A Modern Hybrid Corporation Neither Private nor Public", Bus. L. 601 (1976).

58/ Rail Passenger Service Act of 1970, Oct. 30, 1970, Pub. L. 91-518, 84 Stat. 1327, amended by National Railroad Passenger Service Corporation Assistance, June 22, 1972, Pub. L. 92-316, 86 Stat. 227.

59/ Interstate Commerce Act, 49 U.S.C. § 5; Rail Passenger Service Act of 1970, 45 U.S.C. § 565.

60/ The Amtrak-Railroad Unions Labor Protective Agreement defines the protective period, the period during which displaced employees must receive benefits, as six years from the date on which the displacement occurred as a result of reorganization. The agreement was entered pursuant to the Rail Passenger Service Act. The Act did not specify a protective period, but did state that the benefits should be no less than those established pursuant to the Interstate Commerce Act.

The Interstate Commerce Act, at the time that the Amtrak agreement was entered, specified only that the protective period should be no less than four years. In 1976 the Interstate Commerce Act was amended to require that protective agreements made pursuant to it should not be for less than four years and that they should not be less protective than those established under the Rail Passenger Service Act. The effect of that amendment was to extend, by reference, the minimum protective period under the Interstate Commerce Act to six years.

Amtrak-Railroad Unions Labor Protection Agreement (signed July 5, 1973) printed in The Bureau of National Affairs, Collective Bargaining Negotiations and Contracts: V. 2 Basic Patterns, Clause Finder 53:551-57 (1975); Rail Passenger Service Act of 1970, 45 U.S.C. § 451; Interstate Commerce Act, 49 U.S.C. § 5.



61/ See n. 55.

62/ Regional Rail Reorganization Act of 1973, Jan. 2, 1974, Pub. L. 93-326, 87 Stat. 986, amended by Railroad Revitalization and Regulatory Reform Act of 1976, Title VI, Feb. 5, 1976, Pub. L. 94-210, 90 Stat. 97, amended by Rail Transportation Improvement Act, Oct. 19, 1976, Pub. L. 94-555, 90 Stat. 2621.

63/ Trade Act of 1974, Jan. 3, 1975, Pub. L. 93-618, 88 Stat. 1981.

64/ Trade Expansion Act of 1962, Oct. 11, 1962, Pub. L. 87-794, 76 Stat. 892.

65/ See Hillman, "The Making of ConRail", 45 I.C.C. Prac. J. 18 (1977).

66/ Regional Rail Reorganization Act of 1973, 45 U.S.C. §§ 771-779.

67/ Trade Act of 1974, 19 U.S.C. §§ 2271-322; "Certification of Eligibility to Apply for Worker Adjustment Assistance", 29 C.F.R. § 90 (1977); "Adjustment Assistance for Workers After Certification", 29 C.F.R. § 91 (1977).

68/ The Bureau of National Affairs, Manpower Information Services: Program Guides 293 (1976) See generally "VII. Adjustment Assistance for Import-Impacted Workers", Proceedings, 28th Annual Meeting, Industrial Relations Research Association 205 (1975).

