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1 Framing the Issues

In 1916 Jim Hurd went to work at the Roda No. 2 mine in Virginia. As he worked to cut and load coal one day, he could hear the roof creaking and rumbling overhead. To prevent roof falls, he typically placed timbers in strategic spots throughout the area of the mine where he was working. Later in the day, Hurd left the area he had been working and met up with Bill Donnelly, whom he stooped down to help move a tie for the coal car tracks. A piece of slate fell out of the roof hitting Hurd and inflicting serious injuries. He died soon afterward, leaving a widow and infant children.[1]

Since Hurd died in Virginia in 1916, any compensation his family received from his employer depended in part on whether it could be shown that the Stonega Coke and Coal Company was negligent. In this case because the fall of slate had occurred in an entryway, where the company had responsibility to keep the roof safe, Stonega's lawyers felt that it was likely that the court would consider the company negligent. Under common law, a court might have awarded Hurd's family a substantial sum that would have paid them the value of his earnings over the rest of his normal life. However, Stonega's lawyers had an array of legal defenses they could invoke to prevent this outcome. For example, they could argue that Hurd knew of the risks of a slate fall when he took the job and that Hurd was already receiving extra compensation in his wages from Stonega to accept these risks. Thus, Stonega could be freed from paying damages by this assumption of risk defense.

Stonega had additional defenses if the cause of the accident had been different. Say Hurd had stayed in his own workplace that day and been killed by a fall of slate there. If Stonega's lawyers could have shown that Hurd's coworker had failed to prop the roof in a timely fashion, then Stonega was freed of liability. They could have argued that Hurd's family should sue his coworker for the damages because the coworker's negligence caused the accident. Finally, say the accident was caused in part by Hurd's own failure to prop the roof effectively. The lawyers could then argue that Hurd's own negligence contributed to the accident, so that Stonega was not required to pay.

Under negligence liability the judicial system had to follow a complicated decision process that determined whether Hurd received compensation from Stonega. If the case went to court, the employer or the insurance company paid legal defense fees, while families like Hurd's typically retained a lawyer who would receive one-fourth to one-third of any payments the family received. If the family won the first round, Stonega's lawyers were likely to appeal the decision. If the family could make a strong case for employer negligence, they could fight it through the appeals court and potentially win a large settlement, but the decision often would be several years away and there still remained the risk of losing on appeal. In fact, the vast majority of cases never reached a court decision. Both sides could benefit by settling the issue quickly. Stonega could avoid their own court costs, while Hurd's family could receive financial assistance to help cover their necessities immediately. Stonega's generosity in settlements was influenced by the cause of the accident. If they felt that they would eventually lose in court, they were likely to make a more generous offer, but one that was well below the potential damages that might be awarded in court. In Hurd's case, where the company feared that they might be found liable, his brother demanded a settlement payment of eight thousand dollars. After protracted negotiations, Stonega settled on a payment to the family of twenty-five hundred dollars, half to the widow and half to Hurd's infant children. In other cases, where the lawyers felt the company was not negligent or that the worker was at fault, Stonega did not pay damages or settled for one or two hundred dollars. On average, the results of several surveys in various states suggest that about half the families of fatal accident victims received a positive payment from employers, and the typical amount was about a year's income. For injured workers, Stonega and other employers sometimes offered benefits like a free use of a company house to the family for a period of time. If Hurd had not died, the coal company might have employed him in a less demanding job until he recovered.

Given the relatively small amounts that Hurd's family might expect to receive, Hurd and his family had to seek ways before the accident of protecting the family against the possibility that he might be injured or killed. Hurd's mining wages were generally higher than in other industries, in part as a reward for accepting the higher risk of mining. Many families tried to increase their savings to have resources available to cover their losses. An accident early in Hurd's career, however, would have led to expenses that easily overwhelmed the savings collected. A number of families bought life insurance with an average payout of about one year's income. The family faced more problems in buying insurance against accidents that disabled him because premiums were expensive and access was limited. Some employers helped workers establish mutual societies to provide a limited level of benefits for families.

Had Hurd been killed in Virginia in 1919, his family would have faced an entirely different legal scenario. All Hurd's family essentially would have had to show was that the accident occurred while he was working. Whether he was at fault, Stonega was at fault, or Hurd's coworker was at fault was irrelevant. The workers' compensation law spelled out the payment that Hurd's family would receive from Stonega based on his weekly earnings. In Virginia in 1919, Hurd's family would have received one hundred dollars for funeral expenses plus a weekly payment of half of his earnings up to a maximum of ten dollars for three hundred weeks. The process was simplified, although the family might have needed to retain legal counsel if Stonega disputed whether the accident occurred on the job, the level of Hurd's weekly earnings, or connections between Hurd and his family. Had Hurd only been injured, there may have been disputes over the extent of the injury and his medical costs. Taking into account all accidents, no matter the cause and results ranging in severity from short-term disability to death, Hurd and his family on average would have received higher payments with the switch to workers' compensation. Under negligence liability there was always the chance of much larger rewards but there were substantial odds that they would receive no payments at all. Under workers' compensation we estimate that employers wound up paying out about one and one-half to three times as much to families of accident victims than under negligence liability.

This transition in the treatment of Jim Hurd's family and other working families not only involved a change in liability rules, it was a central step in the development of the American welfare state. The goal of this book is to answer two central questions: First, how might various groups have gained from the adoption of workers' compensation? Second, what was the process that led so many state legislatures to adopt workers' compensation laws? To answer both questions, we need to examine closely the experiences of workers, employers, insurers, lawyers, and taxpayers during the transition. Close study raises a host of issues: how closely the administration of negligence liability and later workers' compensation followed the liability rules; how the changes in liability influenced accident prevention by employers and workers; the extent to which labor markets rewarded workers for accepting greater risk or penalized them when accident benefits rose; and how well insurance companies could market insurance in light of the problems they had in identifying the risks faced by the purchasers of insurance and controlling changes in accident prevention efforts by the insured. We find that a substantial majority of employers, workers, and insurers gained from the transition. Yet there were no guarantees that the legislation would pass. We therefore examine the political economic process that led to adoption. This involves assessing the strength of unions, manufacturers, lawyers, and insurers in the various states, the extent to which progressive reformers had political clout in each state, and the types of employers in the state. The success of legislation depended on both state and local trends in wages, industrialization, legal rules, and labor laws in each state.

We are not the first scholars to study the origins of workers' compensation. Walter Dodd (1936) and Herman and Anne Somers (1954) offered thumbnail sketches of the reasons for the introduction of workers' compensation as public interest legislation based on their reading of the employer liability reports from various states. They suggested that one reason for the emergence of workers' compensation was the social insurance motive. Reformers decried the common law system of assigning negligence as an anachronism because modern industrial processes created accidents that were neither the fault of the worker nor of the employer, they were simply the outcome of dangerous working conditions. Thus, restricting compensation to cases where the employer was at fault left large numbers of injured workers uncompensated, forced into poverty often through no fault of their own. Further, the way the system worked under negligence liability led to uncertain and greatly unequal payouts for accidents with similar severity. Workers' compensation reduced these problems because all injured workers received some form of compensation.[2] A second reason for the transition away from the negligence-based system was to reduce unnecessarily large transaction and administrative costs. Attorney's fees, court costs, and the administrative costs of insurance left a 40 to 60 percent gap between what employers paid out for postaccident compensation and what workers ultimately received. The largest cost to injured workers probably was the cost of court delays, which could last up to five years. Reformers sought to reduce administrative costs, court delays, and insurance overhead costs by creating a no-fault compensation system that eliminated disputes over negligence or the applicability of the three defenses. Finally, because workers bore the disproportionate share of accident costs under the negligence system, reformers argued that the negligence system gave employers little incentive to reduce accident risk. By shifting the financial burden of industrial accidents onto employers, reformers claimed, accident rates would fall.

In hindsight, it is not clear that workers' compensation settled many of these issues. Total administrative costs for workplace accidents did not necessarily fall with the introduction of workers' compensation. The total costs might even have risen because the number of cases administered rose dramatically after the law was introduced. Further, since most cases under negligence liability were settled outside the courts, it is a very difficult to determine even whether administrative costs per injury and average time to compensation for injury declined.[3] Insurance companies still included significant load factors in the premiums they charged, although the shift reduced problems with adverse selection.

The evidence that workers' compensation improved accident prevention is mixed. Negligence liability gave employers incentive to prevent all accidents where their prevention costs were lower than the expected damages. Employers could obtain discounts in their liability premiums if their accident records improved and could reduce risk premiums in wages by making their workplaces safer (Fishback and Kantor 1992). Reformers also failed to consider moral hazard problems, as better insured workers might have taken less care to prevent accidents. With workers potentially taking less care and employers taking more care to avoid accidents, how overall accident rates would change is theoretically uncertain. As discussed later in chapter 3, empirical estimates vary. The adoption of workers' compensation reduced accident rates in manufacturing (Chelius 1976), but raised them in the coal mining industry (Fishback 1992, 112–25).

Workers' compensation, like most legislation, was not passed simply because it was "in the public interest." Generally, opinions differed across various interest groups, and a political coalition combining all or part of these interest groups had to develop in the legislature for workers' compensation to be adopted. Scholarly descriptions of the composition of this political coalition vary. One of the common accounts of workers' compensation's enactment is that politically influential social reformers of the time helped workers score a significant victory over their employers (see, e.g., Noble 1997, 16). On the surface, this cursory observation rings true. The average postaccident benefits for workplace injuries that workers received under workers' compensation were significantly higher than those under the negligence system. Moreover, in some important states, including California, New York, and Washington, organized labor played a critical role in securing the legislation (Nash 1963; Drescher 1970; Wesser 1971; Tripp 1976; Asher 1983; Pavalko 1989). In some states, labor's influence was even more significant. Robert Asher (1983, 222) claims that the labor unions' successes in strengthening employers' liability laws in New York "frightened employers and forced them to consider workers' compensation as an alternative to a radical employers' liability system." Yet many of these scholars also suggest that employers joined workers in favoring the legislation.

A number of scholars have found that business leaders were the impetus behind the adoption of the legislation. Weinstein (1967) argues that employers saw workers' compensation as a preemptive strike, designed to reduce the necessity for labor to organize politically (see also Bale 1987). Lubove (1967), on the other hand, contends that business supported workers' compensation because of the economic benefits that could be captured by substituting the stability of the compensation laws for the randomness of the negligence liability system. As state legislatures began to strip employers of their common law defenses, the National Association of Manufacturers and many state-level business organizations saw workers' compensation as a way to stem the tide of more frequent and larger jury awards (also see Castrovinci 1976; Kent 1983; Tripp 1976). Workers' compensation therefore did not seem like such a leap to employers given that they were already required by the common law rules of negligence to compensate workers injured in accidents caused by the employers' negligence (Skocpol 1992, 296; Orloff 1993, 239).

Employers were troubled further that insurance companies were only paying out 25 to 40 percent of their liability premiums to injured workers; the remainder went to litigation costs, administrative expenses, and insurance company profits. Buffum (1992), Dodd (1936), and Somers and Somers (1954) argue, for example, that employers supported workers' compensation as a means to reduce the transaction costs of providing remuneration to injured employees. Finally, Dodd (1936) and Somers and Somers (1954) note that employers were becoming increasingly concerned about the animosity that the negligence liability system created between them and their employees. Many employers, therefore, may have viewed workers' compensation as a profit-enhancing strategy because it was expected to cut costs and to enhance productivity. In fact, after many states had already adopted workers' compensation laws, Willard Fisher (1920, 19) wrote in the *American Economic Review* that "by many tokens employers have shown their approval of the system. . . . Much the larger numbers of employers affected have accepted their new obligations cheerfully." Tone (1997, 49) is much more cynical about employers' support of workers' compensation, however. She claims that by "savvily labeling workers' compensation laws as a 'great but uncertain experiment' in social legislation whose long-term impact was unknown, the NCF [National Civic Federation] made its lukewarm support of workers' compensation laws the basis for a full-fledged assault, couched in the vocabulary of prudence and caution, on other social insurance measures."

Workers' compensation was not class-based legislation implemented from the bottom up or from the top down. Workers did not obtain large gains at the expense of employers, nor were recalcitrant workers coerced into accepting the terms of this "uncertain experiment" by their employers. Each group supported workers' compensation in the political negotiations willingly because they anticipated gains from the switch to the new regime. Employers gained a reduction in the uncertainty surrounding their accident costs and saw reduced frictions with their workers, as other scholars have noted. On the surface it appears that they paid too much for these gains because the switch to workers' compensation led to a substantial increase in the amounts they paid for accidents. However, as shown in chapter 3, employers were able to pass on to workers a large portion of the higher costs of postaccident payment through reductions in real wages. Thus, employers gained greater certainty and reduced friction without having to pay for most of the increase in benefit levels. Risk-averse workers, despite "buying" the higher benefits through a drop in their wages, gained because under negligence liability they had problems purchasing their desired levels of accident insurance. The switch to workers' compensation left them better insured against workplace accident risk. Finally, insurance companies willingly supported the legislation, as long as it did not allow the state to write workers' compensation legislation, because they could expand their coverage of workplace accident risk.

If the major economic interests anticipated gains from workers' compensation, what actually facilitated the law's adoption? This question, on the surface, seems rather mundane, but in fact is particularly important in light of recent research that finds that efficiency-promoting institutional changes can be delayed, while inefficient institutions persist. Unraveling this puzzle requires a detailed and comprehensive study of the way in which economic interests are filtered through the political process. Previous work on the development of workers' compensation falls short of this goal. The two quantitative studies of the determinants of the legislation that have been conducted treat the legislative process as in a vacuum, abstracted from the rich differences in compensation laws, and omit a number of potential determinants of the laws (see Pavalko 1989; Buffum 1992). Moreover, the historical studies tend to focus on one particular state and it is difficult to draw broad conclusions without comparing multiple studies. In addition, the previous research on the origins of workers' compensation has not attempted to empirically measure the economic or distributional consequences of the legislation.

We use a blend of quantitative and qualitative studies to develop a comprehensive interpretation of the origins of workers' compensation. Many of the scholars cited here agree with the general statement that workers' compensation legislation was supported by both employers and workers. They did excellent work in identifying the written and oral political stances taken by the various interest groups and the struggles in the legislature to pass the laws in various states. Yet they offer little more than a cursory description of the operations of the negligence liability system, of the changes in the amount of payments received by injured workers under the two systems, and of the impact of the workers' compensation law on wages, accident rates, insurance purchases, and savings. This book offers an in-depth discussion of these issues as well as a quantitative analysis of the speed with which states enacted the legislation and the parameters of the law—such as state versus private insurance of workers' compensation risk and the level of accident benefits—that different states chose. As a result, it complements, deepens, and in some areas contradicts the analysis of earlier scholars. Using empirical techniques and case studies, we are able to identify underlying forces and relationships that help explain some of the puzzles the earlier scholars left behind.

1.1 An Analytical Framework

Institutions are the rules that govern human interactions. They include laws, regulations, customs, mores, religion, and any other sets of constraints that people impose on themselves to structure their social, economic, or political lives. Early research on institutional development held that they were organized in order to maximize economic efficiency (Demsetz 1966, 1967; Davis and North 1971; Alchian and Demsetz 1973; North 1981). On the specific issue of liability for accidents, there is an extensive literature in law and economics that is devoted to discussions of the optimal choice of liability rules (see, e.g., Posner 1972; Brown 1973; Epstein 1973; Shavell 1980, 1987; Veljanovski 1982). In general the discussion has focused on minimizing the sum of accident prevention costs and the expected damages from accidents (probability of the accident times the damage done). If the goal, however, is to provide the optimal amount of social insurance, the problem becomes far more difficult because there are no widely accepted definitions of what that would entail. Under one extreme definition, optimal social insurance requires that all workplace accident victims be fully compensated. Yet such an extreme might not be satisfactory to those who believe in individual responsibility and that workers who do not take simple actions to protect themselves should not be allowed to receive income from employers who do their best to prevent accidents.

There are settings where the sum of prevention costs and expected damages is minimized and workers are fully covered when injured, but this arises only under very extreme assumptions. Say there are zero transactions costs and information can be obtained without cost about the extent of the dangers faced in the workplace and about the workers' and employers' prevention activity. What would happen if the employer bore no liability whatsoever for workplace accidents? Employers with more dangerous workplaces would be forced to pay a wage premium to their workers. In a perfectly functioning labor market where the employer and insurance companies are risk neutral and the workers are slightly risk averse, the wage premium would be equated with the expected damage from accidents. Given that information costs are zero, insurance companies could effectively overcome problems with identifying which workers faced which dangers so that they would not face problems with adverse selection. Further, with zero transactions costs insurance companies could design insurance contracts that gave workers less incentive to keep from adopting more dangerous practices once insured, consequently solving problems with moral hazard. Thus, workers would be able to take their wage risk premium and buy insurance that fully covered their losses.[4]

Even though the employer legally bears no costs of workplace dangers, the worker still receives full compensation when injured through a combination of wage payments and insurance purchases. Employers would have incentives to try to reduce the workplace risks in cases where the reduction in expected damages was greater than their costs of lowering the risks because they can reduce the risk premium that they pay to workers. They would write contracts with workers to get the workers to prevent accidents for which workers had lower prevention costs.

In theory, we might see the same final outcome if the liability were fully shifted to the employer.[5] The employer pays the worker full damages when injured and thus the worker would no longer require a risk premium in wages. The employer could either self-insure or purchase insurance to cover these accident costs. Again, the employer has incentive to prevent accidents where the expected damage exceeds the cost of prevention, either because he can reduce his payments for accidents or he can reduce the size of his insurance premiums. Further, the employer can contract with the worker to have the worker exercise optimal accident prevention.

In such a frictionless world a social insurance program for accident risk is not needed. Injured workers receive full compensation for their expected lost income and medical expenses and thus they and their families no longer become paupers. Workers and employers can write contracts that develop the proper incentives for eliminating the kinds of accidents where the costs of prevention are lower than the expected damages from the accident. In essence, this is an example of the Coase conjecture that through negotiations we can end up at the same optimal point whether we assign the liability to one party or the other (Coase 1960).

Yet frictions do in fact exist and they play an important role in determining the nature of political economic activity and regulation. In fact, Coase's conjecture, like the discussion above, is just a staging ground from which we can identify how transactions costs and information costs get in the way of the operation of markets and try to explore the choice of liability rules. Employers and workers face various costs in writing individual labor and insurance contracts, monitoring the behavior of the other party to the contract, and obtaining information about the risks of jobs. Meanwhile, insurance companies face problems in determining the specific risks faced by the purchasers of insurance and in guarding against the insured taking extra risks once insured. Once a liability rule is established, there are costs to courts or bureaucracies of administering the rules and adjudicating the disputes that might arise. All of these costs are present to varying degrees in every empirical setting, making it nearly impossible to identify "the optimal liability rule" on theoretical grounds.

The correct answer as to what is the optimal liability changes as we focus on different costs. Steven Shavell (1980, 21–22), for example, relaxed only the assumption about the workers' knowledge of the accident risk. His careful analysis shows that if workers have knowledge of only the average risk on the job and not the specific risk they would face for that job, only negligence liability will maximize his measure of social welfare, the sum of the expected incomes of all parties. However, if workers do not have full information about the average risk, then negligence liability will be "inefficient" too. Consider that Shavell relaxed only one of the assumptions. Relaxation of another single assumption leads to a different answer about the optimal liability rule. Once we relax all of the assumptions, there is no theoretical solution to the "optimal" liability rule. The search for optimality becomes an empirical exercise devoted to comparing imperfect rules based on accurate measures of transactions, information, and administrative costs and their impact on the operation of labor and insurance markets. Unfortunately, the size of these costs often defies accurate measurement, so that we are left with inferential techniques.

The adoption of workers' compensation was a move from negligence liability with the legal defenses of assumption of risk, contributory negligence, and fellow servant to a form of no-fault liability where workers were not fully compensated for their lost earnings. Negligence liability offers the employer the incentive to prevent all accidents where his costs of prevention exceed the expected damage for the accident. In this setting workers have extra incentives to prevent accidents because they will not be compensated for any accidents where the employer was not negligent. The contributory negligence defense adds extra incentive for the worker to prevent accidents because the worker receives nothing if he could have prevented the accident at costs lower than the expected damage, even if the employer was negligent. In real-world settings the incentives created by negligence liability are diluted somewhat because the use of the court system is costly and often involves substantial delays. Most of the accident compensation is determined through out-of-court settlements where the liability rule might be only one of several factors that determine the compensation paid. Generally, the operation of negligence rules leads to a large number of accidents where the worker receives no payments from his employer. As a result, workers seek higher pay to accept accident risk and succeed in obtaining a partial risk premium in their wages, but the premium is typically not enough to fully cover their expected losses. A risk-averse worker might use the risk premium in his wages to try to buy insurance, but the insurance company is going to have problems selling him insurance if the insurer cannot obtain reliable information about the risk the worker faces. If insurers have only limited information about the risks faced by individual workers, they will have problems with adverse selection if they just set a rate and offer full coverage. Typically, they will sustain losses if they follow this pricing strategy because only the workers faced with higher risks will purchase insurance. To resolve this problem the companies will limit how much they sell to workers. Further, the insurers will try to limit payouts to prevent against problems with moral hazard. Thus, workers may have to use alternative, more costly methods, like precautionary saving to provide for their families in case of an accident.

The switch to workers' compensation liability, where the employer is liable for all accidents arising out of or in the course of employment, changes the structure of accident prevention. Employers are no longer freed from liability for a wide range of accidents. The total payments they make for accidents might go up or go down. In fact, we show that the switch to workers' compensation in the United States forced them to increase their accident payments. The employers did not bear the full burden of this increase because they were able to pass at least some of the costs back to their workers in the form of wage offsets. Workers essentially paid for an improvement in their insurance. The higher levels of accident payments gave employers more incentives to prevent accidents than before. The no-fault payments also change the prevention calculus for workers, who now have less incentive to exercise care. Insurers may gain in one dimension because now employers have incentive to buy insurance to cover the payments to all of the workers on their payroll. As a result, insurers have fewer problems with adverse selection among the workers in each firm. On the other hand, with the rise in accident payments, the moral hazard problem by workers may become more severe. This problem was partially resolved under workers' compensation because the worker received at most two-thirds of his income when injured, and therefore bore a significant part of the damage of an accident. In the final analysis, the switch to workers' compensation in the United States left workers better insured against workplace accidents than before. They at least partially paid for higher accident benefits. At the same time it is unclear whether prevention efforts rose or fell because the accident prevention incentives went in opposite directions for employers and workers.[6]

In this book we do not try to measure the relative efficiency of the two systems of employer liability and workers' compensation. A comparison of relative efficiency would require us to examine the sum of prevention costs, expected damages, transactions costs, and administrative costs under the two regimes. At one stage we thought we could measure all of the relevant costs and benefits effectively, yet our efforts and the efforts of many others have fallen well short of expectations. Instead, we follow a different tactic. We try to establish information about factors that we can measure. How much were injured workers paid under the two regimes? How well did the actual system of employer liability follow the common law rules on which it was based? When workers' compensation was introduced, how did wages, savings, and accident rates change? What happened to the number of accidents compensated? By answering these difficult questions, we try to establish what employers, insurers, and workers could anticipate they would gain or lose as a result of the transition away from employer liability to workers' compensation. Once we knew what their gain or loss would be, we could then determine whether they would be likely to support workers' compensation legislation. By following this process we have discovered in fact that workers' compensation, with its form of limited no-fault liability, was legislation that benefited a large majority of employers, workers, and insurers. The results do not offer a general prescription for the optimal choice among no liability, strict liability, negligence liability, or the variations and combinations that develop from integrating contributory negligence with other defenses. However, the results do suggest that given the presence of various frictions at the time it was adopted, workers' compensation appears to have been beneficial legislation for a substantial majority of the actors involved. Thus we can learn for general purposes that in a society faced with the sets of constraints that were in place around 1910, workers' compensation might well have been the optimal way to deal with workplace accidents.

If workers' compensation was indeed an institutional arrangement that increased social wealth, should we expect that the program would be adopted? In the early days of the new institutional economics, scholars answered yes (see Demsetz 1966, 1967; Davis and North 1971; Alchian and Demsetz 1973). Since that time, many scholars including the early ones (see North 1981, 1987) have recognized that transaction costs and distributional conflicts are not always easily overcome and often can slow the adoption of income-enhancing institutional change. It is typically when these barriers stand as impediments to institutional change that the relevant interest groups petition the government for a political solution. But once the process of institutional change is politicized, there is no guarantee that relatively beneficial regimes survive while the inefficient ones decay. Indeed, as Gary Libecap (1989b, 7) notes, "the heart of the contracting problem is devising politically-acceptable allocation mechanisms to assign the gains from institutional change, while maintaining its production advantage." But the prospects for such an outcome might not be so bright, for as North (1987, 422) concludes, "one of the most evident lessons from history is that political systems have an inherent tendency to produce inefficient property rights which result in stagnation and decline."

Despite the importance that scholars of economic development attribute to institutions, there are relatively few detailed empirical analyses of the process of institutional change.[7] What causes individuals to seek changes in their institutional environment? What impedes the way of profitable institutional change? How are these barriers overcome? How do the different interest groups with a stake in the new regime translate their economic objectives into political action, if in fact a political solution is called for? What are the economic consequences of the institutional changes; do they lead to the economic improvements that proponents promise? One of the main difficulties that researchers of institutional change have faced is that each individual case has its own set of answers to these questions and generalizing the results of the case studies into a general theory of the process of institutional change has proven difficult. The variables that explain what happened in one instance may do very poorly in predicting what will occur in another.

While this book does not offer a solution to this dilemma, we believe that our approach provides an analytic framework for studying how institutions evolve. Our goal in the book is to trace the process of one particular institutional change from its inception to its conclusion, highlighting the salient ways in which economic interests are filtered into public policy. Our research objective is not only to understand the economic causes and consequences of the adoption of workers' compensation, but also to explain how politics affected the ultimate form of the legislation. The features of workers' compensation laws varied across the United States, and it is this cross-sectional variation that provides the opportunity to study how differences in interest groups' political strengths determine the path and scope of institutional change.

We seek to show how the economic and political environment influenced the passage of complex legislation. Our research methodology has three major components. First, we devote extensive efforts to identifying the gains and losses that various interest groups anticipated from the passage of workers' compensation. While we can learn a great deal from examining the public statements of those groups with a stake in the legislation, understanding how workers' compensation directly affected these groups economically provides us with valuable information about their possible political stance on the law. Our assumption is that political actors could reasonably anticipate the economic consequences of the policies they promoted.[8] Our quantitative analyses of the nature of postaccident benefits before and after workers' compensation and the impact of workers' compensation on wage rates, accident rates, and household choices among consumption, saving, and insurance purchases has established that workers, employers, and insurance companies all received and could anticipate benefits from workers' compensation.

The second major task of our analysis is to determine the context of the transition to workers' compensation. If the major interest groups with a stake in the legislation saw benefits from its adoption, what were the catalysts that sparked the rapid acceptance of the legislation across the United States between 1910 and 1920? We do not claim to provide a comparative analysis of workers' compensation's legislative success relative to that of social insurance programs. The book, however, does provide insights into why compensation legislation was widely accepted during the Progressive

Era, while other programs, such as unemployment insurance, social health insurance, and old-age insurance, were dismissed.

The third strand of our research considers how economic interests were translated into political outcomes. Using a combination of quantitative and qualitative case-study analyses, our goal is to more carefully identify how the political process determined not only the timing of adoption but also the specific form workers' compensation legislation took. These details of the legislation are particularly important because they determined how income would be (re)distributed under the law. While our argument is that employers and workers as a group expected benefits from workers' compensation, we would be remiss to consider the interests of all employers or workers as monolithic. For example, larger or more productive firms may have had a cost advantage in implementing safety equipment and programs that would have lowered their insurance rates. We might conjecture that such firms supported workers' compensation as a means of raising the relative costs of production for their smaller competitors. Employers in industries where they could easily invoke their common law defenses might not have supported workers' compensation because their costs of accident compensation would have risen dramatically under the new system. Similarly, employers in relatively safe industries may not have supported workers' compensation if insurance rates were not fully experience rated because employers with better safety records would end up subsidizing the insurance for employers with worse safety records.

While employers, workers, and insurance companies were the primary groups affected by the legislation, attorneys, taxpayers, farmers, and state bureaucrats had a stake in the outcome as well. Insurance companies, for example, fought against laws that allowed the state to compete in the writing of workers' compensation insurance. Damage suit attorneys stood to lose as workers' compensation would eliminate a part of their practices, and in some states they effectively slowed the adoption of the legislation. On the other hand, some damage suit attorneys and many lawyers with other specialties actively pressed for workers' compensation. Taxpayers in some states opposed the legislation on the grounds that it would create new expensive bureaucracies, raise the costs of paying public employees, or establish state funds that might require taxpayer subsidies. State labor department officials lobbied for workers' compensation legislation on the grounds that it would expand their influence over labor regulation in the state.

Our analysis of the political process blends several general themes from the economics and political science literatures on political decisionmaking. We assume that legislators and other political decisionmakers seek to maximize their own objectives subject to a series of constraints. The constraints are imposed by the demands of voting constituents who have some control over each lawmaker's reelection (Downs 1957; Mayhew 1974; Fiorina 1977), by interest group pressures (Stigler 1971; Peltzman 1976; Hughes 1977; Becker 1983; Olson 1982), by institutional features of the decision process, such as constitutional proscriptions and legislative committee structure (Shepsle and Weingast 1981, 1984; Denzau and Mackay 1983; Weingast and Marshall 1988), and by pressures to maintain their position in a political coalition either for ideological or economic reasons (Poole and Rosenthal 1997). In our detailed empirical studies of the adoption of workers' compensation in various states, we pay close attention to how these constraints that legislators faced influenced the path of institutional change.

1.2 Outline of the Book

The plan of the book generally follows the three major themes highlighted above. Before discussing the adoption of workers' compensation, in the next chapter we provide a detailed description of the legal environment that preceded the legislation. While it is obviously important to understand the historical context out of which workers' compensation emerged, a detailed picture of the negligence liability system serves another purpose as well. In their effort to explain the rationale for workers' compensation, law and economics scholars have analyzed the relative efficiency of the new legal regime relative to its common law predecessor (see, e.g., Posner 1972; Brown 1973; Epstein 1973; Shavell 1980, 1987; Veljanovski 1982). They generally assume that the actual payment of accident compensation followed the de jure rules of the two systems. In their analyses of negligence liability, for instance, injured workers either receive full compensation for their losses when the employer is negligent and cannot invoke one of the common law defenses, or the workers receive nothing. Under workers' compensation injured workers recover up to two-thirds of their lost income for all accidents arising out of or in the course of employment. Because the results of these theoretical models are sensitive to their underlying assumptions, our goal in chapter 2 is to provide a careful empirical assessment of how injured workers in fact fared under the common law. We know that the vast majority of negligence claims were settled out of court to avoid the substantial costs of seeking a court decision. In this setting the common law rules may have had a distorted impact on the actual compensation payments that injured workers received. A better understanding of the de facto operation of the negligence system, therefore, serves as the basis for more accurate theoretical discussions of the relative efficiency of negligence and no-fault legal systems.

In chapter 3 we discuss the major economic changes that resulted from workers' compensation. Our aim is to understand how various economic interest groups fared under the legislation with an eye toward determining what they might have reasonably anticipated would happen. First, however, we establish how workers' compensation changed the nature of postaccident benefits. We show that not only did the percentage of injured workers receiving remuneration increase, but also the average amount they received increased substantially. Our evidence indicates that the average payments to the households of accident victims increased between 75 and 200 percent as a result of the adoption of workers' compensation. We then turn to the economic consequences of this large increase in average postaccident payments. An analysis of wage rates in three relatively dangerous industries shows that nonunion workers experienced a drop in their real wages as a result of the legislation, but unionized workers in the building trades and coal mining confronted much smaller wage offsets. That most workers essentially "paid" for the relatively generous postaccident benefits that workers' compensation mandated helps to explain why employers willingly supported the legislation. What is less clear is why workers were such enthusiastic partners in the push for a new legal regime. An examination of how workers' compensation influenced households' savings and insurance decisions sheds light on this apparent paradox. We show that workers around the turn of the century faced constraints in their ability to purchase private insurance against workplace accident risk. Thus, despite buying workers' compensation benefits through lower real wages, nonunion workers supported the legislation because it left them better insured against workplace accident risk than under the negligence system. Further, as long as the state did not attempt to exclude them, insurance companies thought that the legislation was a good idea as well because it enabled them to expand their coverage of this line of risk.

If the major economic interest groups with a stake in workers' compensation anticipated gains, why did state legislators wait until the 1910s to adopt the law rather than adopting it earlier? In chapter 4 we provide an examination of the changes in the negligence liability system across the United States in the early 1900s that shows that several trends combined to pique the major interest groups' political support of workers' compensation. Workplace accident risk rose, state legislatures adopted a series of laws weakening employers' common law defenses against negligence, and court decisions also began to limit employers' defenses in liability suits. These factors together served to substantially increase liability insurance premiums. Employers, facing an increasingly worsening workplace accident liability crisis, were commonly in favor of workers' compensation by 1910. At the same time, labor unions, which were gaining numerical strength, shifted their focus from reforming the negligence system to fully supporting workers' compensation. Thus, by 1910 politically active employers' groups and labor unions pressed for the enactment of workers' compensation. Analysis of the timing of adoption across the United States confirms our hypothesis that a worsening negligence liability crisis served as a catalyst that brought the major interest groups together in favor of reform.

In chapter 5 we elaborate further on the process by which workers' compensation was enacted. While quantitative analysis of the timing of adoption across the United States provides a useful test of our hypothesis that a liability crisis triggered the movement in favor of workers' compensation, the quantitative analysis treats the political process of adoption within each state as a black box. Therefore, in this chapter we provide a number of synopses drawn from detailed case studies that illuminate the dynamics of institutional change. The studies highlight the difficulty that interest groups have in forming a cohesive coalition in favor of reform. The difficulty is not only in getting employers, insurers, and workers to agree, but also in getting factions within each broad interest group to agree on the type of legislation that they would support.

Given that the major interest groups anticipated gains from workers' compensation, it seems surprising that contemporary accounts sometimes depicted the adoption process as extremely bitter. In exploring this seeming paradox, it is important to consider that the legislation was very complex and involved negotiations over many different specific details of the law, including the choice between private and state insurance of workers' compensation risk and the level of statutory benefits. The details of the law were important because they determined how income would be distributed under workers' compensation.

Probably the most vicious debates were fought over the state insurance issue. Union groups particularly had antipathy toward the insurance companies, seeing them as a key reason why injured workers were unable to receive adequate compensation under negligence liability. Unions, therefore, lobbied vigorously for the replacement of private insurers with state insurance. For their part, insurance companies saw state insurance as an encroachment on their private enterprise and feared the government's further expansion into other forms of insurance. The result was a series of intense disagreements in state legislatures around the country. In chapter 6 we report the results of a quantitative analysis of state legislatures' decisions on the state insurance debate. Further, we conduct detailed case studies of the political debate in Minnesota, Ohio, and Washington. These studies show that a combination of unions and progressive reformers overcame the opposition of insurance companies and agricultural interests to adopt monopoly state insurance schemes in seven states. In ten other states the groups compromised and a state fund was created that competed with private insurers in underwriting workers' compensation. In the remaining states the insurance and agricultural interests won and employers were free to insure their workers' compensation risks with any insurer licensed to do business in the state.

Chapter 7 takes up the question of how the disparities in the political strength of the different groups affected state legislators' choices of benefit levels. We have developed a theoretical model that predicts the optimal benefits from the perspective of workers and employers with different characteristics. We then use these predictions as a basis for understanding the effectiveness of interest groups in politically securing their optimal workers' compensation benefit levels. A quantitative analysis of expected benefit levels from 1910 to 1930 reveals that influential employers in high accident risk industries succeeded in lobbying for relatively low benefits, holding other factors constant, while those in high wage industries succeeded in keeping benefit levels in check. Employers' successes in securing their optimal benefits were tempered in states where organized labor was strong, where political reform movements led to political shifts in the state legislature, and where bureaucratic agencies administered the workers' compensation system.

Comparison of the results from chapters 4 and 5 with those in chapters 6 and 7 reveals an important feature of the adoption of workers' compensation that previous scholars have overlooked. Generally, we have found that progressive reformers had a comparatively small impact on state legislatures' decisions to adopt the general legislation for workers' compensation. In contrast, when it came to the adoption of state insurance or choosing benefit levels, the strength of political reform movements often played a decisive role. The difference stems from the attitudes of the various interest groups. A strong political reform movement was not necessary for the adoption of workers' compensation more generally because the main groups with a stake in the legislation anticipated benefits. On the other hand, when at least two of these interest groups squared off against each other on a particular issue, the political reformers' influence became decisive in a number of cases. These results provide new insights into the political success of workers' compensation during the Progressive Era. Workers' compensation succeeded, while many other relatively "radical" reforms failed, because it received the support of a broad range of interest groups. The social reformers, who had hoped for sweeping social insurance protection for workers, had their greatest influence when the major interest groups agreed to the general principle, but had difficulty reaching a consensus on the details.

Notes

1. This event is described in Stonega Coke and Coal Company, "Operating Report, 1916," from records of Stonega Coke and Coal Company, Hagley Museum and Library, p. 56. The donors of the manuscript collection require that we use pseudonyms to protect the privacy of the families of these men.

2. The American Association of Labor Legislation pressed the argument for workers' compensation as one form of social insurance. See Seager (1910), Rubinow (1913), Moss (1996), and Tone (1997, 32).

3. Whether workers' compensation led to a reduction in marginal transactions costs per case depends on the administration of the new workers' compensation system. Costs per case may have been lower in states with a state insurance fund, but possibly the same or higher in other states. In Ohio, Washington, and West Virginia, where there were exclusive state funds, the processing of claims was almost perfunctory. Carl Hookstadt (1922, 4, 6–7) found that administrative costs per worker were lower than in states with competitive state funds or insurance by private stock companies, in part because state funds were more liberal in compensating workers and challenged fewer claims before industrial commissions. This liberality lowered total legal fees for workers in Ohio, where relatively few workers hired lawyers when going before the industrial commission (Conyngton 1917, 70–71). In Virginia, Colorado, Michigan, Pennsylvania, and Indiana, where private insurance was allowed, administrative costs per case might have been the same as under negligence liability. In these states, compensation was determined through voluntary agreements between the injured miner and the company. The states' Industrial Commissions reviewed the agreement and settled disputes. This process seems very similar to the situation under the negligence system in which most claims were settled out of court. If the costs per settlement were similar under the two systems, the increased number of claims would have raised total administrative costs under workers' compensation above those for the negligence system. The difference in costs may be larger when disputed cases are considered. The Stonega Coke and Coal Company, which self-insured, was involved in approximately ninety hearings of contested cases before the Virginia Industrial Commission between 1924 and 1926. Stonega's lawyers considered each hearing to have required "almost as much legal work done as would have been necessary if there had been a trial at law before a court." Under the negligence system, Stonega's annual reports for 1916–1918 mention only fifty lawsuits, of which thirty-one were settled out of court (operating reports of the Stonega Coke and Coal Co., Report of the Legal Division, 1921, 225, and operating reports for 1916–1926 in boxes 210–212 in the Records of the Stonega Coke and Coal Co., Hagley Museum and Library, Wilmington, Delaware). On the other hand, insurance companies may have seen the costs of offering insurance per dollar paid to injured workers fall with the move to workers' compensation to the extent that a reduction in problems with adverse selection offset any problems with problems in detecting fraud. In the final analysis, we do not know for sure whether the costs per case and/or the total administrative costs fell with the introduction of workers' compensation.

4. Workers would not need to demand higher than the expected damages if they know that they can purchase insurance. However, if there were administrative costs of the insurance, then workers would demand a risk premium large enough to cover the costs of their insurance.

5. This statement is subject to some caveats about the Coase theorem in game theoretic settings.

6. Spillover effects are additional problems that complicate the discussion of liability rules and accident prevention. Spillover effects are most problematic for accidents between strangers, for example, automobile accidents. If a number of motorists are uninsured, problems may arise for insured motorists. If the uninsured motorist causes a serious accident with another automobile, he is likely to be unable to fully compensate the other party for the losses sustained. Thus, the other party either bears the unmet cost of this loss at the time of the accident or is forced to pay higher premiums for insurance to cover this loss. Such spillover

effects are likely to be less problematic in workplace injuries because the employment relationship contains many ties between the worker, the employer, and his fellow worker that are not present in the meeting of strangers. These ties include formal and informal arrangements between the parties for providing appropriate accident prevention.

Under the old negligence system, some of the costs of accidents to uninsured workers were borne by others because families were able to obtain help from charities and meager payments from local governments. These payments were small, however, and the social stigma was large enough that this did not cause a serious mismatch of incentives. Under negligence liability with fellow servant defense, there may have been a spillover problem when a fellow worker caused the accident. According to the fellow servant defense, the fellow worker who caused the accident, and not the employer, was required to compensate the accident victim. Since the fellow worker's wealth was low, the fellow worker would have been unable to compensate the worker fully for his loss. We have not found any evidence that workers were purchasing liability insurance to cover their obligations if they caused an accident to a fellow worker. Nor have we found cases of workers suing fellow workers for damages, possibly because such suits seemed futile. Therefore, there may have been a moral hazard problem with fellow servants taking inadequate care to prevent accidents that would hurt others. This would have increased the problems for insurers of selling accident insurance to workers. Workers' compensation helped reduce this problem since the entire workplace was covered under the employers' insurance premium. On the other hand, under workers' compensation workers had incentives to take less care generally, forcing employers to pay compensation for some accidents that might not have occurred under negligence liability. This gave employers more incentives to prevent accidents. In the final analysis, we do not believe spillover effects to have been nearly so important for the adoption of workers' compensation as they are for modern automobile accident liability. For a good discussion of the political and economic issues related to no-fault liability for automobile accidents, see Harrington (1994).

The payment of medical expenses is one area where spillovers may pose a significant problem in modern workers' compensation, which often offers first dollar coverage with high limits for medical care associated with a workplace accident. A worker whose medical problems potentially could be related to a workplace injury therefore has greater incentives to claim that the condition is work related and therefore obtain repayment of their medical costs. This has led to calls for a merger of employer health insurance with the medical component of workers' compensation to reduce this spillover effect.

7. Shawn Kantor (1998) has made a recent attempt to disentangle the process of institutional change in his analysis of the development of property rights and fencing laws in postbellum Georgia.

8. Alston (1996, 25–26), however, cautions that "the dynamics of institutional change frequently include unintended consequences that take on a life of their own. For this reason I warn against a functionalist approach to institutional analysis whereby the motivations for particular institutions are judged from the consequences of the institutional change." While Alston's concerns are warranted, we do not believe that careful empirical analysis of the effects of institutional change should not be considered a useful starting point in beginning to understand the process of building a political coalition in favor of a particular institutional change. Scholars must use their judgment to assess whether the findings of these empirical studies are consistent with theory and the historical context within which the institutional change is debated.