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4 The Timing of Workers' Compensation's Enactment in the United States

Workers' compensation fundamentally established an ex ante "contract" between workers and employers, who promised to pay a specified set of benefits for all accidents arising out of or in the course of employment. The legislation raised the expected postaccident payments that workers received as a result of their workplace accidents. In return, workers forfeited their rights to common law negligence suits. Economic theories of government intervention suggest several possible alternative explanations for the adoption of workers' compensation. Interest groups might have competed for legislation that enabled them to redistribute income in their favor at the expense of others (e.g., the "capture" or "rent-seeking" models). Or, faced with some set of market problems, interest groups might have developed a cooperative solution whereby they all gained. Or alternatively, the program might have been enacted as part of the broad-based agenda of a political economic coalition.[1]

The adoption of workers' compensation was not the result of employers' or workers' "capturing" the legislation to secure benefits at the expense of the other. Nor can its adoption simply be attributed to the success of Progressive Era social reformers' demanding protective legislation. Several changes in the workplace accident environment in the early 1900s combined to pique workers' and employers' interests in establishing workers' compensation. The share of the workforce in dangerous industries rose, state legislatures adopted a series of employers' liability laws, and court decisions limited employers' defenses in liability suits. All three changes combined to substantially increase the uncertainty of the negligence liability system. Many employers, facing an increase in the extent of their accident liability and uncertainty about future changes in this liability, favored the adoption of workers' compensation by 1910.[2] Labor

unions, growing in strength and increasingly dissatisfied with the results of employers' liability laws, at the same time shifted their focus from reforming the negligence system to fully supporting the transition to workers' compensation. The legislation was enacted so rapidly across the United States in the 1910s because most members of the key economic interest groups with a stake in the legislation anticipated benefits from a shift away from the negligence liability system. One of the major contributions of this chapter, therefore, is to document empirically why, if so many parties anticipated benefits from the legislation, state legislatures waited as long as they did to adopt workers' compensation.

The groundswell to adopt workers' compensation might be seen as a national movement that carried nearly all of the states along with it. It would be a mistake, however, to ignore the activities in each individual state, where legislatures made the actual decision. Analysis of the timing of adoption across the United States supports our contention that the greater uncertainty arising from changes in the negligence system played an important role in the introduction of workers' compensation. The relative strength of major interest groups also played a role, as unions, the manufacturing lobby, and larger and more productive manufacturers helped speed the adoption of workers' compensation. Finally, social reformers played a smaller role in the overall adoption of workers' compensation laws than they did in determining the particular features—such as benefit levels or state insurance of workers' compensation risk—of the legislation in a particular state.

4.1 The Formation of a Coalition in Favor of Reform

Workers' compensation incorporated two key features that help explain why many employers, workers, and insurance companies anticipated gains from the legislation. First, as shown in chapter 3, the transition to workers' compensation increased the amount of postaccident payments that injured workers received. Second, workers' compensation essentially allowed employers and workers to establish an ex ante "contract" in which workers waived their rights to sue in return for a prescribed set of benefits in the event that they were injured on the job.

Given that workers' compensation significantly raised the levels of postaccident compensation that workers received, why would employers support the increase in benefits, which led to such a major de jure redistribution of income? Roy Lubove (1967) and James Weinstein (1967) claim that employers supported the legislation as a means of buying labor peace, as a way to stem the tide of court rulings that increasingly favored injured workers, and as a way to reduce the costs of settling accident claims. David Buffum (1992) argues that employers gained because the new law reduced the uncertainty of their accident payments. Employers also were able

to reduce at least some of the burden of higher accident payments by passing the costs of workers' compensation back to workers in the form of lower wages. As seen in chapter 3, the higher expected postaccident benefits under workers' compensation were fully offset by lower real wages for nonunion coal miners and offset to a large degree for nonunion lumber workers. Union workers in coal mining and in the building trades, on the other hand, experienced much smaller wage reductions. Since employers could pass a substantial portion of the increase in postaccident benefits to nonunion workers, they were more likely to favor a no-fault compensation system that was less acrimonious and more certain than negligence liability.

Given that union members experienced relatively small wage offsets, organized labor's diligent lobbying on behalf of workers' compensation is understandable. What is less clear is why nonunion workers, who constituted about 90 percent of the labor force, supported workers' compensation. After all, many could expect to pay for a substantial portion of their new benefits in the form of lower real wages. Workers would have had little desire to "buy" the higher accident benefits under workers' compensation if they could just as easily have used the risk premiums in their old wages to purchase their own workplace accident insurance. We have shown in the previous chapter, however, that workers faced constraints in trying to purchase the levels of accident insurance that they desired in the early twentieth century. Unable to reach their desired level of insurance coverage, families had to rely on household mechanisms, such as saving, to insure against accident risk. Yet saving was a relatively costly means of insurance. Thus, even though their wages might have fallen, risk-averse workers might have benefited from workers' compensation because the laws provided them with a level of expanded insurance coverage against workplace accident risk that they had not been able to obtain privately under negligence liability.

Insurance companies also stood to gain from the passage of workers' compensation, as long as states did not try to displace private insurers through the establishment of state insurance funds.[3] Because of the adverse selection problems associated with selling individual accident insurance, insurers stood to gain if the law compelled employers to insure their entire payrolls. Employers purchased substantially larger amounts of insurance under workers' compensation because they were mandated to provide their entire labor force accident benefits that on average exceeded those of the negligence system. The insurance industry supported the law because the switch from selling accident insurance to workers and liability insurance to employers to selling workers' compensation expanded the scale of their business. The premiums collected by commercial insurance companies for workers' compensation insurance rose from zero in 1911 to $114 million in 1920, despite the presence of compulsory state funds in

seven states and competing state funds in ten more. This $114 million rise in workers' compensation insurance nearly tripled our estimate of a decline of $41.5 million in employers' liability premiums.[4]

One group that might have opposed the introduction of workers' compensation comprised attorneys involved in the practice of workplace accident law. In Missouri, for example, these damage-suit attorneys used the political process to slow the adoption of workers' compensation (Kantor and Fishback 1994a). On the other hand, one of the leading personal injury lawyers in the state of Washington, Guvnor Teats, became one of the leading advocates of workers' compensation (Tripp 1976, 543). The transition to the no-fault system did not put workplace accident lawyers out of business. Instead it shifted the nature of their activities. The issues for legal action shifted from negligence to determining whether the accident had occurred at work, the size of the worker's weekly wage, and the extent of the injury. The number of accident cases that received administrative attention also rose sharply, so that many workplace accident attorneys may have seen their business grow. Further, accident attorneys were only a small percentage of the bar. In many states attorneys were actively involved in drafting workers' compensation legislation and a number of state bar associations supported the legislation.

4.2 Why Workers' Compensation?

If employers, workers, and insurers stood to gain from workers' compensation, then we might have expected to see a significant private movement where workers and employers negotiated private contracts that established workers' compensation–like arrangements at the firm level. Under such a private scheme workers would have signed contracts with their employers in which the worker, before any accident occurred, waived his right to a negligence suit in return for a guaranteed set of accident benefits, regardless of fault. Why was a governmental solution chosen?

Part of the answer to this apparent paradox is that the courts did not recognize an ex ante contract in which a worker waived his right to a negligence suit in return for a set of benefits similar to those under workers' compensation. Employers were clearly interested in establishing such contracts. Writing at the turn of the century, Stephen Fessenden (1900, 1203) claimed that it was "customary" at that time for employers to try to create these ex ante contracts, but "it has generally been held by the courts of the United States that a contract made *in advance,* whereby an employee agrees to release and discharge his employer from liability for any injury he may receive by reason of the negligence of his employer, or of his servants, is contrary to public policy and void. This principle has been announced by a Federal court in the following well-chosen language: 'As a general proposition, it is unquestionably true that an employer can not

relieve itself from responsibility to an employee for an injury resulting from his own negligence by any contract entered into for that purpose *before* the happening of the injury [emphasis added].'"[5]

In addition, twenty-eight states had codified such court rulings through the passage of laws that held that an ex ante contract did not bar a worker from filing a negligence suit against his employer.[6] The legal environment relating to workplace accidents in the early twentieth century seems very similar to the modern setting pertaining to product liability whereby consumers' agreements to release the manufacturer from potential liability have been routinely ignored by the courts (Huber 1988, 29–30).

In essence, workers' compensation laws established a form of contract between worker and employer that common law decisions and many state statutes would not honor. The preaccident nature of the workers' compensation contract was extremely important in expanding the amount of insurance that employers could offer their workers. Prior to workers' compensation, the courts allowed firms to offer relief contracts in which an injured worker's acceptance of benefits *after* the accident occurred implied his waiver of future negligence claims. This type of ex post contract was acceptable, however, only if the employer had contributed significantly to the firm's relief fund (U.S. Commissioner of Labor 1908, 755). Because the injured workers could always refuse the postinjury payment and file a negligence suit, relatively few employers established funds in which they were the primary contributor. In only 140 of 461 establishment funds examined by the U.S. Commissioner of Labor (1909, 339, 538–53) in 1908 did employers make contributions to the funds, and in most cases their contributions were less than one-third the levels contributed by workers. The employer gained little from contributing to the relief fund because he expanded the number of workers to whom he was paying benefits, while not removing the uncertainty of the negligence system. Injured workers who would have received nothing under the common law could now claim the guaranteed benefits from the employer's fund, while the workers with strong cases could still choose to seek large court awards or settlements.[7]

A final question needs to be answered. Why didn't state legislatures simply pass laws allowing employers and workers to negotiate their own benefit levels in ex ante contracts?[8] Unions and workers pressed hard for the state to set the benefit levels because they could better negotiate accident benefits collectively through the legislature than through individual negotiations with employers. The statutes and court decisions outlawing ex ante contracts were based on the idea that workers, prior to having an accident, might trade away their rights to negligence suits for too low a price (Weiss 1966, 568; *Johnstone v. Fargo,* 184 N.Y. 379 [1906]). Workers and unions were adamant that the workers' compensation laws expand employers' liability, otherwise they would experience no increase in their insurance coverage for workplace accident risk. One sign that workers

succeeded in expanding employers' liability under workers' compensation was the choice given to employers in states where workers' compensation was elective. After *Ives v. South Buffalo Ry. Co.* (124 N.Y.S. 920 [1911]) declared the New York compulsory workers' compensation statute for extrahazardous employment unconstitutional, the vast majority of states passed workers' compensation laws allowing employers to elect between workers' compensation and negligence liability.[9] In all of the elective states, however, employers that did not choose workers' compensation were stripped of their assumption of risk, fellow servant, and contributory negligence defenses.

The ex ante nature of workers' compensation contracts allowed the employer to eliminate the uncertainties of large court awards in return for providing his workers with a set of benefits that on average were higher than those under negligence liability. Workers, even if they "bought" the better benefits through wage offsets, still benefited because they received better workplace accident insurance coverage than under the negligence liability system. Meanwhile, insurers found that they could sell more workers' compensation insurance than the combination of employers' liability and private accident insurance. The analysis does not imply that every member of the employer, worker, and insurance interest groups gained from the adoption of the "one-size-fits-all" benefit levels under workers' compensation. The results of our empirical analyses, combined with qualitative evidence indicating wide support among the organizations representing the major interest groups, does suggest however that the median member of each interest group expected to gain from workers' compensation.

4.3 Changes in the Workplace Accident Liability Climate

The first decade of the twentieth century saw dramatic changes in the economic and legal environment surrounding workplace accident compensation, and these changes brought workers, employers, and insurers together in a political coalition favoring workers' compensation. Understanding the timing of the enactment of the legislation requires examination of both national and state-level trends. The workers' compensation movement was national in scope and after 1910 the legislation was adopted rapidly across the United States; therefore, in this section we examine national changes that brought the major interest groups with a stake in workers' compensation together in favor of reform. The legislation, however, was adopted and is administered today at the state level. We further illuminate the factors influencing the passage of workers' compensation in the next section by discussing the results of a quantitative analysis of state legislatures' decisions to adopt.

Between 1885 and 1910 most reform efforts were devoted to broadening

employers' liability for workplace accidents. Organized labor pressured legislatures for limitations on employers' common law defenses, anticipating that more injured workers would be compensated and the amount they received would be higher as a result of the laws. They succeeded in obtaining the passage of employers' liability laws in quite a few states, as shown in table 4.1. The number of states with employers' liability laws that restricted one or more of the employers' three common law defenses for nonrailroad accidents rose from seven in 1900 to twenty-three by 1911.[10] The laws acted as precursors to workers' compensation–style legislation because prior to 1910 the passage of the liability laws often increased employers' accident liability, but imposed limits on that liability.

For example, Massachusetts's 1887 employers' liability law was clearly a compromise. Workers gained a limitation on the fellow servant defense, making supervisory workers vice-principals of the employer, which meant that the supervisors' negligent actions could be treated as the negligence of the employer. Employers gained some security because the law imposed a four thousand dollar limit on injury damages and death benefits were limited to a range of five hundred to five thousand dollars. The employers' prorated share of any insurance fund payment was also applied to this amount. Further, workers had to file notice of the accident within thirty days of its occurrence. For the next two decades organized labor pressed for additional expansions in employers' liability without success (Asher 1969). Finally, in 1909 Massachusetts limited the assumption of risk defense and replaced contributory negligence with comparative negligence. Under comparative negligence a worker's own negligence no longer eliminated his claim for damages but instead reduced the share of the damages for which the employer was responsible (U.S. Bureau of Labor Statistics 1914, 960, 987–91).

In New York between 1881 and 1901 various labor groups proposed employers' liability laws with little success.[11] In 1901 the Workingmen's Federation of the State of New York (WFSNY)—later the New York State Federation of Labor—and the New York railroads both submitted bills before the legislature. The legislature passed a compromise measure that was vetoed by progressive governor Benjamin Odell after extensive protest by organized labor.[12] Finally, in 1902 the WFSNY decided that it could succeed in weakening employers' defenses only by passing a relatively weak bill. The WFSNY proposal became law, making employers liable for injuries resulting from the violation of factory laws. Under the law, workers could sue even if they continued working with knowledge of the danger, provided that the employer was responsible for the danger and that workers had assumed only the necessary risks of their occupations. The bill also required notice of suit within 120 days, a sharp reduction from the old three-year limit. A series of court decisions in the next year negated most of the law, and the WFSNY redoubled its efforts to pass new employers' liability legislation. In 1906 the WFSNY helped the railroad

Table 4.1 The Changing Atmosphere of Workplace Accident Liability

Year	State Spending on Labor Issues per Employed Worker (1967 dollars)	Labor Law Index	Number of States with Nonrailroad Employers' Liability Laws That Limit Employers' Defenses[a]	Number of State Supreme Court Cases about Nontrain Workplace Accidents	Total Premiums for Employers' Liability and Accident Insurance (millions of 1967 dollars)	Ratio of Employers' Liability and Accident Insurance Premiums to Life Insurance Premiums
1900		1.69	7	154	63.7	.062
1901		1.89	7	205	78.2	.067
1902		1.97	10	238	90.3	.072
1903	.135	1.52	11	266	95.3	.070
1904	.144	1.49	11	284	106.4	.072
1905	.149	1.48	12	318	120.5	.080
1906	.149	1.50	13	339	134.6	.084
1907	.157	1.56	18	379	147.6	.095
1908	.188	1.58	18	446	159.1	.096
1909	.190	1.69	20	484	165.1	.094
1910	.185	1.75	23	436	202.4	.112
1911	.209	2.05	23	490	225.3	.115

Sources: Fishback and Kantor (1998a, 317). See appendix I.

Notes: The trends displayed by the national aggregates are found in most states. We ran linear trend regressions for each state in each of the categories above. Positive and statistically significant trends were found in thirty-one states for real spending on labor issues, in thirty-one states for court cases, and in thirty-nine states for the ratio of liability to insurance purchases.

[a]This grouping of state laws does not include laws that were focused on railroad workers only or miners only, nor does it include laws that Clark (1908) considered to be restatements of the common law. We focus on laws that dealt generally with the kinds of workers that would have been covered under workers' compensation. If we had included all employers' liability laws of all types, the trend would be similar to the one shown in this column. States with laws that appear to have affected employers' liability for nonrailroad workers prior to 1900 include Alabama, Colorado (an added law in 1901), Indiana (an added law in 1911), Louisiana, Mississippi (1896 ending in 1903 and then a new law in 1910), Utah, and Wyoming. In 1902 Massachusetts (and another law in 1909), New York, and Ohio (with more expansive laws in 1904 and 1910) added laws. In 1903 Kansas (an added law in 1909) and Washington added laws, while Mississippi's law was declared unconstitutional. Nevada added a law in 1905, followed by Wisconsin in 1906, California, Iowa, Oklahoma, Oregon, Pennsylvania in 1907, Idaho and Maine in 1909, Mississippi again, New Jersey and Vermont in 1910, Arizona in 1912, and Arkansas and Nebraska in 1913. For more details about these laws and other employers' liability laws, see appendix G.

brotherhoods pass a liability law pertaining to railroads, after a 1905 scandal weakened Republican dominance of the legislature. However, bills relating to industrial accidents never made it out of committee in 1907 and 1908. The WFSNY's 1909 proposal met the same fate, but the continued pressure by organized labor caused the 1909 legislature to establish an employers' liability commission that was charged with investigating the liability system and the workers' compensation alternative.[13]

Ohio eventually passed employers' liability laws that limited all three defenses, although most of the expansion of liability occurred in 1910 just prior to the adoption of workers' compensation. During Ohio's 1904 legislative session, labor and employers' representatives compromised on an employers' liability reform by passing the Williams Act through a Republican-dominated legislature. Workers gained because the act imposed limits on the assumption of risk defense. In situations where an employer failed to safeguard a machine, the employer could no longer escape liability by claiming that a worker who continued to work with the machine, despite knowing that it lacked protection, had assumed the risk. Employers agreed to the legislation because it limited their risks of paying exorbitant damages by imposing maximums of five thousand dollars for fatal accidents and three thousand dollars for nonfatal accidents.[14] The Metzger Act of 1908 later established similar limits for railroad workers.

By 1909 both the Democratic and Republican platforms in Ohio called for a means of financially protecting workers from injury.[15] When the legislature met again in 1910, the Ohio State Federation of Labor strongly pushed for an expansion of employers' liability. Employers' groups, such as the Ohio State Board of Commerce, bitterly fought the bills and sought instead to establish a commission to study the negligence liability system.[16] After a wild series of amendments and counteramendments in both the House and the Senate, the House agreed to pass the Norris Act as part of a compromise in which the women's hours bill would not come to a vote.[17] The Norris Act established comparative negligence, defined the fellow servant defense more narrowly so that supervisors were not fellow servants, and made employers fully responsible for defects in machinery. Employers found the final version of the bill easier to accept because the limit placed on fatal accident damages was lowered from twenty thousand dollars in the original Norris provision to twelve thousand dollars. In addition, employers succeeded in getting the legislature to establish a commission to study employers' liability and workers' compensation.

While the expansions in employers' liability in some states came through legislation, in others they came through court decisions. The push for reform of employers' liability in Washington had begun by the 1890s. In every legislative session from 1895 through 1909, at least one bill influencing employers' liability for workplace accidents was introduced in the Washington legislature.[18] None of the bills specifically designed to weaken

the common law defenses of assumption of risk, fellow servant, and contributory negligence were passed, and many died in committee. The key changes in the compensation of workplace accidents in Washington came about through significant court decisions.

The first landmark decision, *Green v. Western American Company,* came in September 1902 and it sharply limited the assumption of risk defense. Under assumption of risk a worker could report that a safeguard was missing from a machine, the employer could send him back to work, and if the worker was then injured, the employer could escape liability by claiming the worker had known and assumed the risk of working with the machine. Washington State Chief Justice W. H. White eliminated this use of the assumption of risk defense, arguing that it allowed the employer to use the violation of a law to escape liability.[19]

By September 1902 lumber employers were denouncing the courts for their extravagance in negligence cases. The ratio of losses paid to premiums received for liability insurance in Washington rose sharply from 0.39 in 1901 to 0.56 in 1902, while at least one insurance company left the state because it had to pay out twice the sum received in premiums. The insurance companies quickly adjusted their rates, so that by 1903 the loss ratio dropped sharply to 0.30 before stabilizing around 0.40 to 0.47 for the rest of the decade.[20]

Employers in Washington appeared to receive temporary relief in March 1903 with the passage of the Factory Inspection Act. In one sense the act was an employers' liability law because employers were considered negligent for failure to comply with the inspection laws. On the other hand, employers valued the inspection law because they could have their workplaces certified as safe after complying with the Washington Bureau of Labor's recommendations. A number of lower courts in the state began to recognize the assumption of risk defense again for a number of these "safe" firms certified to be in compliance. Meanwhile, in a series of cases known as the "factory act cases," the Washington Supreme Court reaffirmed that unguarded machinery was a violation of the law and could not be used to invoke the assumption of risk defense (Tripp 1976, 535).

Employers anticipated further relief from the implications of the *Green* decision with the passage of the 1905 amendment to the Factory Inspection Act. The 1903 act stated that employers were required to offer the "proper" safeguard, but attorneys said that the courts often held employers liable even in cases where machinery was safeguarded. The 1905 amendment altered the wording to require employers to offer a "reasonable" safeguard. In the 1905 *Hall v. West & Slade Mill Company* decision, however, the Washington Supreme Court ruled that "reasonable" safeguards meant all "necessary" safeguards to prevent accidents (Tripp 1976, 535–37). The court concluded that by virtue of its causing an accident, a tool or machine lacked necessary safeguards. Joseph Tripp (1976, 535–37)

claims that the ruling in *Hall* essentially destroyed assumption of risk and turned the factory inspection acts into laws that fundamentally changed employers' liability.

The 1905 ruling initiated a great deal of uncertainty about the extent of employers' liability, which led to a dramatic jump in court activity. The number of employers' liability cases contested in the Washington Supreme Court rose from six in 1904 to thirty-five in 1905 and continued to rise to fifty-three in 1910 and again in 1911.[21] This trend in Washington was matched by similar trends in most states.

One sign of the increased legal uncertainty engendered by shifts in the courts' attitude and the new employers' liability laws is the substantial rise in the number of state supreme court cases related to nonrailroad workplace accident litigation. If the legal environment and court interpretations had remained relatively stable, injured workers and employers typically would have settled out of court, avoiding the high costs of litigating accident claims. As the liability rulings shifted, the increased uncertainty would have led the parties to test the bounds of the law in court more often, as well as to increase appeals to state supreme courts. Evidence on the number of workplace accident court cases appealed to state supreme courts is consistent with the view that uncertainty increased markedly prior to the enactment of workers' compensation. Taking all of the states together, the number of nonrailroad cases in state supreme courts increased steadily from 154 in 1900 to 490 in 1911 (see table 4.1), an almost fourfold jump in workplace accident litigation at the highest judicial level alone.[22]

The expansion of employers' liability and the greater uncertainty of the legal system caused a large increase in the liability insurance premiums that employers paid. In Ohio, for example, the Norris Act of 1910 had an immediate impact on the compensation that workers received. Payments to married men in Cuyahoga County rose approximately 16 percent after the act went into effect.[23] Meanwhile, W. G. Wilson of Aetna claimed that the act led to an even sharper increase in insurance premiums, ranging from 100 to 500 percent. The increase was so sharp that when Wilson testified before the Ohio Employers' Liability Commission, he denied any insinuations that "the liability insurance companies were instrumental in lobbying for the passage of the Norris bill with the obvious purpose of mulcting our patrons for increased premiums."[24]

Similarly, in Washington the series of court decisions limiting assumption of risk caused employers' liability insurance rates to more than triple from $0.45 per $100 on the payroll to $1.50 per $100 in 1910 on a new, model plant with all safety devices installed.[25] In general, between 1900 and 1910, total employers' liability insurance premiums collected in Washington rose more than elevenfold, while premiums for all types of insurance rose only sixfold.[26] These same trends occurred nationally. As shown

in table 4.1, the premiums that all commercial insurance companies collected for personal accident and employers' liability insurance rose from $63.7 million in 1900 to $225.3 million in 1911 (constant 1967 dollars), a 354 percent increase. Moreover, this increase in insurers' coverage of employers' liability was not simply an artifact of an ever-increasing insurance industry, because liability insurance outpaced other forms of insurance. The ratio of accident and employers' liability premiums to life insurance premiums increased from 0.062 in 1900 to 0.115 in 1911 (see table 4.1).[27] We should note that the increase in aggregate liability premiums conflates increases in insurance rates with the expanded coverage that employers may have sought. Even if the increase in liability premiums was not completely driven by increases in insurance rates, the figures suggest that the weakening of employers' common law defenses encouraged employers to pay more attention to accident compensation issues than before.

The increasingly unfavorable legal climate added to the consternation of employers because it occurred during a time when industrial accidents were coming to the fore of public attention. In the first decade of the twentieth century, employment in dangerous industries increased, as did public awareness of workplace accidents. Shifts in manufacturing employment toward more dangerous industries between 1899 and 1909 raised the average accident risk that manufacturing workers faced by approximately 13 percent.[28] Meanwhile, the percentage of workers in mining increased from 2.6 percent in 1900 to 2.8 percent in 1910, increasing the number of miners by 300,000 and thus the annual death total by about 600 workers. It is not clear, however, whether the accident risk for specific industries was rising or falling. Measures of fatality rates for mining and railroading have the fewest problems with measurement and reporting error during the period. Table 4.2 shows that fatal accident risk in coal mining rose roughly 20 percent from 1890 to 1910, from a decennial average of 1.43 workers per one hundred thousand man days in the 1890s to 1.71 in the 1900s. On the other hand, fatal accident rates in railroading and in metal and nonmetallic mining appear to have fallen. Even if the true accident rates within industries were constant, the reporting of nonfatal accidents was rising sharply in nearly every state department of labor report of the era, following trends similar to the one displayed for railroad accidents in table 4.2. Although the upward trends in accident risk might have reflected better reporting as opposed to true changes in accident risk, social reformers were able to use the statistics as evidence of a growing workplace accident crisis. The publicity that reformers generated directed substantially more attention to industrial accidents, along with the related financial hardship that they caused.

The worsening workplace accident liability climate in the early 1900s encouraged employer-supported lobbying groups to explore the possibility of a switch to a no-fault compensation system. Between 1908 and 1910

Table 4.2 **Changes in Fatal Accident Risk in the Early Twentieth Century**

Year	Coal Mining Fatality Rates per 100,000 Days Worked	Metal and Nonmetal Mining Fatality Rates per 1,000 Workers	Railroad Fatalities per Million Man-Days	Railroad Nonfatal Accidents per Million Man-Days
1890	1.17	Not available	Not available	Not available
1891	1.43	Not available	Not available	Not available
1892	1.47	Not available	10.4	114.9
1893	1.34	Not available	10.3	119.8
1894	1.50	3.39	7.7	98.8
1895	1.56	4.79	7.6	108.5
1896	1.54	Not available	7.4	119.7
1897	1.42	3.82	6.8	110.6
1898	1.43	3.59	7.5	121.0
1899	1.47	2.87	8.0	126.1
1900	1.62	3.18	8.4	130.6
1901	1.51	3.47	8.7	134.3
1902	1.72	2.74	8.3	141.3
1903	1.57	2.40	9.5	159.5
1904	1.72	2.76	9.12	168.4
1905	1.71	3.41	8.30	165.0
1906	1.62	2.98	9.06	176.9
1907	2.08	2.83	9.28	179.4
1908	1.85	2.37	7.40	179.2
1909	Not available	Not available	5.92	170.2
1910	1.77	Not available	6.80	192.3
1911	1.66	4.19		

Sources: Coal mining fatality rates are the number of bituminous coal miners killed in accidents per thousand employed divided by the average number of days the mines were open in that year (Fay 1916, 10–11). Metal and nonmetal mining fatality rates are reported in Aldrich (1997, 306). The railroad fatality and nonfatality rate divides the number of railroad employees killed (series Q404) and injured (Q405), from U.S. Bureau of the Census (1975, 740), by the total man hours worked by railroad employees from the sample, as reported in Kim and Fishback (1993).

the National Civic Federation, which was composed of leaders from major corporations and conservative unions, devoted substantial time in their meetings to developing and promoting a workers' compensation bill. Meanwhile, the National Association of Manufacturers (NAM) in 1910 called on its members to provide voluntary accident insurance; but then in 1911 the NAM fully endorsed workers' compensation as a solution to the accident compensation problem (Weinstein 1967; Lubove 1967). After forming in 1907, the American Association of Labor Legislation (AALL) became one of the leading advocates for workers' compensation (see Skocpol 1992, 160–204; Moss 1996).[29] The federal government, which often preceded most employers in offering relatively generous workplace benefits, established workers' compensation for federal workers in 1908 as a

result of Theodore Roosevelt's strong support (Lubove 1967, 263–64; Johnson and Libecap 1994).

The employers' shift in interest toward workers' compensation coincided with changing sentiments among organized labor, whose ranks were rapidly expanding during this time period. Membership in labor unions increased sharply from 868,000 in 1900 to 2.14 million in 1910, growing nearly three times faster than the labor force (Wolman 1936, 16). The attitudes of major labor organizations went through a substantial change as they gained more experience with the results of employers' liability laws. Around the turn of the century, the American Federation of Labor (AFL) believed that better accident compensation could be achieved by stripping employers of their three defenses (Somers and Somers 1954, 31; Weinstein 1967, 159). Organized labor's reluctance to embrace workers' compensation was part of a more general opposition to government regulation of the workplace. Union leaders theorized that business interests controlled politics and, thus, better benefits for workers could be achieved only through the voluntary organization of workers (Weinstein 1967, 159; Skocpol 1992, 205–47; Asher 1969, 457).

After pressuring state legislatures to pass employers' liability laws, organized labor seems to have become dissatisfied with the results. Large numbers of injured workers were still left uncompensated and a substantial percentage of the insurance premiums paid by employers never reached injured workers. Organized labor harshly criticized insurance companies and lawyers as "parasites pure and simple, absolutely unnecessary in industry, yet demanding a part of its created wealth which they have no part in creating, thereby raising the cost to both producer and consumer."[30] In 1909 the AFL switched its position and passed four resolutions supporting workers' compensation legislation and the organization, at the federal level and through its state affiliates, became a vocal proponent of the legislation.[31]

Increased interest on the parts of employers and workers in workplace accidents coincided with, and may have contributed to, the expansion of states' increasing regulation of the work environment. Table 4.1 shows that state spending (in constant 1967 dollars) on factory inspections, boiler inspections, arbitration and mediation, and publishing labor statistics doubled from $0.09 per employed worker in 1900 to $0.19 by 1910.[32] The increase in spending was often associated with an expansion of state labor department bureaucracies and in many states the state labor department itself became an advocate for the introduction of workers' compensation and further regulation of labor markets.[33] In fact, workers' compensation represented the leading edge of labor legislation during the period. A labor law index (which excludes workers' compensation) in table 4.1 illustrates this point. The index remains roughly constant between 1.5 and 2 until 1911 and only rises coincident with or following the first wave of enactments of workers' compensation laws.

With rising interest by employers and organized labor in workers' compensation, the states began establishing commissions to study the issue.[34] Typically, the commissions included a balance of employers' representatives and representatives of organized labor. In the initial meeting in Washington, when it was discovered that there were few labor representatives, they actually delayed the meeting in order to obtain more representation from organized labor (Tripp 1976). These commissions often served as fact-finding bodies, proposing bills to be considered in the state legislature. In many cases the commissions would agree on the desire for workers' compensation but disagree on the features that should be included; therefore, multiple bills were proposed for legislative consideration.

The support from major employers' groups and organized labor led to the widespread adoption of workers' compensation, after a couple of experiments in Maryland in 1902 and Montana in 1909 were declared unconstitutional.[35] Within the next decade, forty-three states adopted workers' compensation. Table 4.3 shows the years in which state legislatures adopted workers' compensation for the first time, although in some cases the initial laws adopted by legislatures and signed by the governor were struck down by courts or referenda. For example, New York passed two laws in 1910, a compulsory law for extrahazardous employment and a voluntary law for all types of employment. The compulsory law was declared unconstitutional in *Ives v. South Buffalo Ry. Co.* (124 N.Y.S. 920 [1911]) as a constitutional taking without due process of law (U.S. Bureau of Labor 1911, 110).[36] After amending the state constitution, New York established another compulsory law in 1913. By 1930 all the states except Arkansas, Florida, Mississippi, and South Carolina had enacted the legislation. As Harry Weiss (1966, 575) noted, "No other kind of labor legislation gained such general acceptance in so brief a period in this country."

4.4 Lessons from the Timing of Enactment across the United States

Variations in the timing of adoption among the states offer some insights into the political pressures that led to the adoption of the legislation. Economic models of the political process emphasize the importance of interest groups in determining the adoption of new policies. Since we argue that employers, workers, and insurers anticipated gains from workers' compensation, we should expect to see that the law was adopted earlier in states where employers, workers, and insurers were relatively influential. The national trends presented in the previous section suggest that changes in the employers' liability climate led the interest groups to intensify their pressure on state legislatures. Therefore, we should expect to see earlier adoption in response to greater average accident risk in manufacturing, the presence of an employers' liability law, higher employers' liability in-

Table 4.3 **Characteristics of Workers' Compensation Laws in the United States, 1910–30**

State	Year State Legislature First Enacted a General Law[a]	Compensation Elective/Compulsory (private employment)	Method of Insurance[b]	Method of Administration
N.Y.	1910 (1913)[a]	Compulsory	Competitive state[c]	Commission
Cal.	1911	Compulsory[d]	Competitive state[c]	Commission
Ill.	1911	Compulsory[d]	Private	Commission[e]
Kan.	1911	Elective	Private	Courts
Mass.	1911	Elective	Private	Commission
N.H.	1911	Elective[f]	Private	Courts
N.J.	1911	Elective	Private	Commission
Ohio	1911	Compulsory[d]	State	Commission
Wash.	1911	Compulsory	State	Commission
Wis.	1911	Elective	Private	Commission
Md.[f]	1912	Compulsory	Competitive state	Commission
Mich.	1912	Elective	Competitive state	Commission
R.I.	1912	Elective	Private	Courts
Ariz.	1913	Compulsory	Competitive state	Courts
Conn.	1913	Elective	Private	Commission
Iowa	1913	Elective	Private	Arbitration committees
Minn.	1913	Elective	Private	Courts
Neb.	1913	Elective	Private	Commission
Nev.	1913	Elective	State	Commission
N.Y.[f]	1913	Compulsory	Competitive state	Commission
Or.	1913	Elective	State	Commission
Tex.	1913	Elective[g]	Private	Commission
W. Va.	1913	Elective	State	Commission
La.	1914	Elective	Private	Courts
Ky.	1914 (1916)[a]	Elective	Private	Commission
Colo.	1915	Elective	Competitive state	Commission
Ind.	1915	Elective[h]	Private	Commission
Me.	1915	Elective	Private	Commission
Mont.[f]	1915	Elective	Competitive state	Commission
Okla.	1915	Compulsory	Private	Commission
Pa.	1915	Elective	Competitive state	Commission
Vt.	1915	Elective	Private	Commission
Wyo.	1915	Compulsory	State	Courts
Del.	1917	Elective	Private	Commission
Idaho	1917	Compulsory	Competitive state	Commission
N.M.	1917	Elective	Private	Courts
S.D.	1917	Elective	Private	Commission
Utah	1917	Compulsory	Competitive state	Commission
Va.	1918	Elective	Private	Commission
Ala.	1919	Elective	Private	Courts
N.D.	1919	Compulsory	State	Commission
Tenn.	1919	Elective	Private	Courts
Mo.	1919 (1926)[a]	Elective	Private	Commission

(*continued*)

Table 4.3 (continued)

State	Year State Legislature First Enacted a General Law[a]	Compensation Elective/Compulsory (private employment)	Method of Insurance[b]	Method of Administration
Ga.	1920	Elective	Private	Commission
N.C.	1929	Elective	Private	Commission
Fla.	1935	Elective	Private	Commission
S.C.	1935	Elective	Private	Commission
Ark.	1939	Compulsory	Private	Commission
Miss.	1948	Compulsory	Private	Commission

Sources: Kantor and Fishback (1998, 559–60). The details of the laws come from Clark and Frincke (1921), Hookstadt (1918–1920, 1922), Jones (1927), U.S. Bureau of Labor Statistics Bulletin Nos. 126 (1913b), 203 (1917), 243 (1918), 332 (1923), 423 (1926b), and 496 (1929). Information about the late adopters was taken directly from the states' session laws. The methods of insurance, elective versus compulsory, and method of administration are the long-run rules established within the first few years of the passage of the law. Some early states, like California, Illinois, and Ohio, changed their decisions about these issues within two to four years of adopting the law. The method of administration changed in a number of states after the industrial commission movement had developed in the later part of the 1910s.

[a]Some general laws were enacted by legislatures but were declared unconstitutional. The years that the law was permanently established are in parentheses. New York passed a compulsory law in 1910 and an elective law in 1910, but the compulsory law was declared unconstitutional and the elective law saw little use. New York passed a compulsory law in 1913 after passing a constitutional amendment. The Kentucky law of 1914 was declared unconstitutional and was replaced by a law in 1916. The Missouri General Assembly passed a workers' compensation law in 1919, but it failed to receive enough votes in a referendum in 1920. Another law passed in 1921 was defeated in a referendum in 1922 and an initiative on the ballot was again defeated in 1924. Missouri voters finally approved a workers' compensation law in a 1926 referendum on a 1925 legislative act (see Kantor and Fishback 1994a). Maryland (1902) and Montana (1909) passed earlier laws specific to miners that were declared unconstitutional.

[b]Competitive state insurance allowed employers to purchase their workers' compensation insurance from either private insurance companies or the state. A monopoly state fund required employers to purchase their policies through the state's fund. Most states also allowed firms to self-insure if they could meet certain financial solvency tests.

[c]California and New York established their competitive state funds in 1913.

[d]The initial laws in Ohio, Illinois, and California were elective. Ohio and California in 1913 and Illinois later established compulsory laws.

[e]Illinois' initial law was administered by the courts; they switched to a commission in 1913.

[f]Employees have option to collect compensation or sue for damages *after* injury.

[g]Compulsory for motor bus industry only.

[h]Compulsory for coal mining only.

surance premiums, and an increase in workplace accident litigation. Finally, workers' compensation has been considered one of the progressive reformer's leading successes. To the extent that this is true, we would expect states to have adopted earlier in areas where Progressive Era reform groups were relatively influential.

We have examined the impact of these factors in two ways. First, in the discussion that follows, we have divided the states into three groups that

are nearly equal in number—those enacting before 1913, between 1913 and 1916, and after 1916. We then compare the mean values for variables circa 1910 that measure the political strength of interest groups, changes in the liability climate, and strength of reform groups. The comparisons indicate the relationship between early enactment and each of these measures, even without holding the other influences constant. These comparisons are reported in table 4.4. It is important to note, however, that the political process was complicated and the various political economic influences may have affected that process in competing and conflicting ways. Second, to examine the impact of each individual factor, controlling for changes in the other variables influencing the adoption of workers' compensation, we performed a discrete-time hazard analysis, which is discussed in more detail in appendix H. The hazard analysis allowed us to incorporate information on the political economic setting for years that the legislatures met between 1909 and the year of adoption in each state. Equally importantly, the hazard analysis allows for multiple factors to influence the enactment decision at the same time; thus, the hazard analysis enables us to isolate the effect of each variable while holding the influences of other variables constant.

4.4.1 Changes in the Legal Environment Governing Accident Compensation

Roy Lubove (1967) and James Weinstein (1967) argue that a key reason why employers supported workers' compensation was the increasingly antagonistic and uncertain legal climate in which accident claims were settled. The passage of employers' liability laws and changes in court interpretations of employers' liability led to higher liability insurance premiums and an increase in legal uncertainty that generated an increase in court activity. All of these factors are associated with earlier adoption of workers' compensation.

When states enacted liability laws that limited an employer's common law defenses, an injured worker's chances of successfully suing his employer for damages increased. This pressure increased the probability that the state would adopt workers' compensation. Among states adopting prior to 1913, 64 percent had employers' liability laws in place in 1910, compared with only 25 percent among the states adopting after 1916. After controlling for all factors in the multivariate analysis, the presence of an employers' liability law for nonrailroad workers that altered one or more of the three common law defenses raised the probability of adopting workers' compensation in any one year by a statistically significant 7.9 percentage points. It should be noted that the employers' liability law had to restrict employers' liability to enhance the chances of adopting workers' compensation. There were some states that established employers' liability laws that simply restated the common law without really changing the

Table 4.4 Sample Means of Factors Influencing Adoption for States That Adopted Workers' Compensation before 1913, between 1913 and 1916, and after 1916

Variables	Means for States Adopting Workers' Compensation: Early (before 1913)	Middle (1913–16)	Late (after 1916)
Changes in workplace accident liability			
Percentage of states with employers' liability law limiting common law defenses	64.3	55.6	25.0
Percentage of states with employers' liability law restating the common law	0	27.7	18.8
Mean ratio of employers' liability and accident insurance premiums to life insurance premiums	0.126	0.118	0.1
Index of workplace accident supreme court cases (1904–6 = 1) lagged one year	1.52	1.64	1.48
Manufacturing accident risk index	1.35	1.76	1.98
Interest group influence			
Mean percentage of manufacturing workers in establishments with less than 5 workers	5.0	8.5	10.7
Mean percentage of manufacturing workers in establishments with more than 500 workers	29.5	22.1	17.9
Mean manufacturing value added per worker (thousands; constant 1967 dollars)	5.00	5.47	4.18
Mean percentage of labor force employed in manufacturing	35.6	24.1	16.4
Mean percentage of labor force employed in mining	3.0	4.9	2.0
Mean index of unionization	9.7	9.6	8.1
Mean life insurance premiums per worker (constant 1967 dollars)	59.0	42.0	31.9
Mean state spending on labor-related bureaucracy per worker (constant 1967 dollars)	0.24	0.20	0.08
Political climate			
Mean progressive law index	4.57	3.5	2.6
Percentage of states in which party control shifted in the year of adoption in at least one branch of the legislature	14	35	50
Percentage of states in which party control shifted in the year of adoption in both branches of legislature	14	12	33
Mean percentage of presidential vote for socialist in 1912	6.7	7.0	4.2
Mean percentage of presidential vote for progressive in 1912	28.7	25.4	19.8
Share of southern states adopting	0.07	0.28	0.63
N	14	18	16

Sources: See appendix I.
Note: All of the means are 1910 values, unless otherwise stated.

employers' de facto liability. The restatement laws were not associated with earlier adoption of workers' compensation.

The passage of employers' liability laws and changing court interpretations increased the uncertainty with which employers faced their accident liability. When legal interpretations were clearly established, both parties were likely to settle a case out of court to avoid costly litigation. Increased uncertainty about judicial decisions, however, gave at least one of the sides greater incentive to seek a court decision, leading to an increase in the number of cases litigated to a decision. This uncertainty was reflected in a rise in court cases concerning workplace accidents decided at the state supreme court level. By 1910 the typical state that adopted prior to 1916 had experienced a rise in the number of court cases of between 52 and 64 percent since the period 1904 to 1906, while states adopting after 1916 had experienced a slightly smaller average increase of 48 percent. In the multivariate analysis we found that such increases in supreme court activity raised the probability of adoption of workers' compensation.

The changes in the legal environment contributed to an increase in the liability insurance rates that employers paid, which in turn increased the pressure for workers' compensation because employers were uncertain about the future of these rates. As noted earlier, one proxy for higher insurance rates is the ratio of total premiums for employers' liability and accident liability insurance to the premiums for life insurance in the state. In fact, the 1910 value for this ratio was about 26 percent higher in states adopting prior to 1913 than in states adopting after 1916, while the multivariate analysis also shows that higher ratios were associated with a greater probability of adopting workers' compensation.[37]

We had thought that greater average manufacturing accident risk might have led to greater pressure for early adoption. To examine the impact of the shift in manufacturing employment toward more dangerous jobs, we created an accident risk index based on the manufacturing industrial mix in each state. Shifts of manufacturing employment into more dangerous industries did not appear to stimulate earlier adoption of the law. The risk index was higher for states adopting after 1916 than for those adopting earlier. Similarly, the multivariate analysis revealed that the risk index had little impact on the probability of adopting workers' compensation. Thus, it appears that greater public awareness of accident risk was not nearly as important as changes in the employers' liability climate.

In general, the results are consistent with the national-level picture drawn in the previous section. The probability of enacting workers' compensation was significantly higher when employers faced problems with expanding workplace accident liability. These pressures developed as states enacted new employers' liability laws, the legal climate in which accident compensation was adjudicated became more uncertain, and employers' liability insurance rates increased.

4.4.2 Interest Group Influence

In general, manufacturing workers and employers anticipated gains from workers' compensation. Meanwhile, farm interests focused on eliminating farm workers from coverage. Once farm workers were excluded, agriculturalists appear to have been largely indifferent to workers' compensation. As expected, states with more workers employed in manufacturing tended to adopt the law earlier. Manufacturing employed on average 35.6 percent of the workers in states that adopted prior to 1913, compared with 16.4 percent for states adopting after 1916.

Within the manufacturing lobby, larger and more productive firms tended to press harder for workers' compensation. These firms might have benefited more from workers' compensation if they gained a competitive advantage in the product market because higher postaccident benefits raised the costs of accident prevention and insurance coverage more for smaller, less productive firms. Bartel and Thomas (1985) make a similar argument for why larger, unionized firms support modern Occupational Safety and Health Administration (OSHA) regulations. The percentage of manufacturing workers in establishments with more than 500 workers was 29.5 percent in states adopting prior to 1913, compared with 17.9 percent in the states adopting after 1916. Similarly, manufacturing value added per worker in 1910 was 20 to 30 percent higher for states adopting prior to 1917 than those adopting after 1916. At the other end of the size spectrum, firms with fewer than 5 workers tended to seek exemptions from workers' compensation. The exemptions gave the firms the choice of choosing to join the workers' compensation system, while allowing them to retain their common law defenses if they remained outside the system. Although the percentage of workers in establishments with fewer than 5 workers was relatively small in states that adopted earlier, the multivariate analysis suggests that the small firms' opposition to workers' compensation was very weak.

Organized labor joined manufacturing interests in strongly supporting the passage of workers' compensation. The American Federation of Labor (AFL) actively pursued the legislation after 1909. Yet in some states there was substantial disagreement within union ranks whether to lobby for their ideal workers' compensation law immediately or to support a weaker law in the beginning, with the hope of amending the law later (see Castrovinci 1976; Kantor and Fishback 1994a). Although internal disagreements might have slowed the adoption process in some states, in general, a greater union presence in a state substantially raised the likelihood of adoption. We developed a union index for each state to reflect the degree to which the industries represented in the state were unionized at the national level. The index is approximately 20 percent higher in states adopting prior to 1917 than in states adopting after 1916. After controlling for

the remaining factors in the multivariate model, the relative impact of the union index on the probability of adopting workers' compensation was greater than that of any other variable.

The insurance lobby favored workers' compensation as a means of expanding their coverage of workplace accidents, as long as the state did not try to establish a state fund to write workers' compensation insurance. One way to measure the general strength of the insurance lobby is to look at the amount of insurance business they did in the state relative to the working population. In this case we use the amount of life insurance premiums paid (in constant 1967 dollars) divided by the number of workers in the state. We focus on life insurance because that was the most common form of insurance sold during the period. Note that this measure is substantially different from the ratio of employers' liability to life insurance discussed earlier. The life insurance measure captures the overall size of the insurance industry, whereas the earlier ratio captures the relative share of employers' liability activity. A comparison of means shows that the life insurance premiums per worker were $59 in the early adopting states relative to $31.90 in late adopting states. It should be noted, however, that the seemingly strong relationship between the insurance lobby and early adoption is eliminated when we control for other factors in the multivariate analysis. The absence of a strong positive effect might have been caused by the connection of the issue of state insurance with workers' compensation in many states. Insurers stood to gain from workers' compensation laws as long as states did not establish their own insurance funds to compete with or replace private insurance of workers' compensation risk. As discussed more fully in chapter 6, seven states created monopoly state insurance funds to fully replace private insurance, ten more set up funds that competed with private insurance carriers, and state insurance was an issue in many of the remaining states that never adopted a state insurance scheme. Even if insurers favored workers' compensation in principle, their opposition to workers' compensation bills that included state insurance diminished the measured impact in the more general adoption equation.

The final interest group that we assess is the state labor bureaucracy. State bureaucrats had several incentives to support workers' compensation. Since both workers and employers sought workers' compensation, regardless of which group more strongly influenced the labor bureaucracies, they had incentive to lobby for the legislation on behalf of their patrons. Further, the state labor bureaucrats' duties and budgets would expand if states created industrial commissions to supervise the operation of workers' compensation. Finally, the labor bureaucrats may have been useful in publicizing the benefits of workers' compensation. In table 4.4 the comparisons of 1910 data show that state spending on labor issues was substantially higher in the early adopting states than in the later adopting

states. However, once we control for other factors in the multivariate analysis, the state labor bureaucracies had virtually no impact on the adoption of workers' compensation.

4.4.3 Political Climate

Keith Poole and Howard Rosenthal (1997) find that broad-based political economic coalitions may be as important to the adoption of legislation as narrow economic interests; therefore, we include measures to try to capture the influence of such coalitions. The leading political movement around the time of workers' compensation's adoption was the Progressive Movement, which took different forms in different states. The Progressive Era altered the nature of the political environment in which workers' compensation was debated in many states. Reform-minded legislators became influential in many state legislatures in the early twentieth century. They introduced, along with workers' compensation, such measures as initiatives and referenda, direct primaries, mothers' pensions, state tax commissions, compulsory school attendance, state welfare agencies, merit systems for state employees, minimum ages for child labor, and state commissions to regulate electricity rates. In addition, reformers unsuccessfully sought unemployment insurance, old-age pensions, minimum wages and maximum hours for men, and public health insurance. Potentially, workers' compensation might have been swept along as part of the progressives' broader agenda for socioeconomic reform. We have examined the impact of the Progressive Movement using four measures: the electorate's support for socialist presidential candidates, the support for Theodore Roosevelt's progressive presidential candidacy in 1912, variables that measure shifts in party control of state legislatures, and an index of progressive laws that each state had adopted to date.

The percentage of the vote won by Theodore Roosevelt's presidential campaign offers a rough measure of the extent to which voters in each state supported the nationwide progressive platform in 1912. All three parties expressed their support for workers' compensation in 1912, so the votes for Roosevelt might reflect acceptance of a broader progressive agenda for socioeconomic and political reform. Similarly, the votes garnered by socialist candidates may reflect the intensity of interest in more radical reform. As shown in table 4.4, voters in states adopting prior to 1917 were much more likely to support Roosevelt's progressive presidential campaign than the states that adopted later. Similarly, a higher percentage of voters supported socialist candidates in 1912 in the states adopting prior to 1917 than those adopting after 1917. The multivariate analysis reported in appendix H shows that after controlling for other political economic factors support for Roosevelt's progressive campaign still had a strong effect on the enactment of workers' compensation, while the voting for socialist candidates had virtually no impact on the probability of adoption.

Voting at the presidential level, however, says very little about the impact of reform movements within state legislatures. There is no simple way to measure the impact of the Progressive Movement and other reform movements at the state level. The Democratic and Republican party labels took on different meanings across the states during this time period, as progressive legislators were found in the Republican and/or Democratic parties across the United States in the early twentieth century. One way to capture the effect of reform movements is to measure their success in adopting other forms of progressive legislation. Therefore, we developed an index of progressive legislation that each state had in place at any point in time. The index measures the number of laws from the following list of progressive proposals that the state had passed: ballot initiatives, referenda, direct primaries, a mothers' pension law, a state tax commission, compulsory school attendance legislation, a state welfare agency, a merit system for state employees, a minimum age for child labor, and a state commission to regulate electricity rates. As shown in table 4.4, as of 1910, the states that adopted early had an average of 4.6 of these laws, compared with 2.6 for states adopting after 1917. However, after we control for other factors in the multivariate analysis, the impact of the progressive law index is relatively small and we cannot statistically reject the hypothesis of no effect.

Another way to capture the effect of reform movements is to track shifts in party control within each state legislature. The multivariate analysis revealed that shifts in party control had little impact on the probability of adopting workers' compensation, perhaps because the legislation was widely supported by all political parties and by workers, employers, and insurers. The limited impact of shifts in party control on the adoption of the legislation contrasts sharply with the results using the same legislative shift variables in our study of the battle over state insurance funds. As shown in chapter 6, insurance companies and unions fought bitterly over the state insurance issue, and quantitative analysis reveals that political power shifts were important factors in determining the adoption of monopoly state insurance in a handful of states. In general, it appears that workers' compensation was so widely accepted, while many other Progressive Era reforms were not, because a broad array of interest groups supported the legislation. Other, more controversial features of workers' compensation, like state insurance, did not necessarily have broad support, but reformers who championed a wide range of socioeconomic reforms accomplished their objectives when a political power shift within a state swept them into the majority.

A cursory look at the timing of adoption across the United States shows that southern states tended to adopt much later than northern states. Only 7 percent of the states among the early adopters were southern states, while 63 percent of the states adopting after 1917 were southern states. A question arises about whether there was something "peculiar" about the

economic and political environment of the South that led to slow adoption. Gavin Wright (1986) believes that southern labor markets were separate from the rest of the U.S. labor market, while Lee Alston and Joseph Ferrie (1985, 1993) suggest that southern leaders were opponents of social security and other New Deal social welfare programs. However, once we control for the extent of the liability crisis, the influence of economic interest groups, and other progressive measures, the multivariate analysis shows that there was no unmeasured peculiar feature of the South that led to slower adoption.

4.4.4 "Contagion" Effect

When workers' compensation was first being considered, employers raised concerns that the legislation would put them at a cost disadvantage relative to their competitors in neighboring states. Given this attitude, employers may have been more willing to endorse workers' compensation when they were assured that their rivals in other states had similar labor costs. In the multivariate analysis, however, we found no evidence of such a "contagion" effect.

4.5 Summary

Workers' compensation was the leading tort reform and labor legislation of the Progressive Era. It was actively supported by lobbying groups representing employers, workers, and insurers because most of those in each interest group expected to gain from the legislation. Employers anticipated a reduction in labor friction, a reduction in the uncertainty of their accident and court costs, and a reduction in the gap between what they paid for insurance and what injured workers received. In addition, they were able to pass at least some of the additional costs of workers' compensation benefits on to their workers in the form of lower real wages. Workers, on average, anticipated higher postaccident benefits from the new legislation. Even if they "bought" the better benefits through lower wages, they anticipated better "insurance" coverage against workplace accident risk. In essence, workers could reduce their precautionary saving once the law mandated that employers bear the majority of the financial burden of industrial accidents. For their part, insurers believed that the shift to workers' compensation would reduce problems with adverse selection, and thus they could expand their coverage of workplace accidents, as long as the state did not become an insurer itself. These gains could only be realized through the passage of workers' compensation because the courts in the early 1900s did not allow employers and workers to write workers' compensation–style private contracts in which workers waived their rights to negligence suits prior to an accident. Thus, instead of being imposed from the top down or from the bottom up, workers' compensation was enacted

because a broad-based coalition of divergent interests saw gains from reforming the negligence liability system.

The catalyst that united these interest groups was an increased awareness of workplace accident problems and substantial changes in the liability system that governed workplace accident compensation. Across the country during the early years of the twentieth century, employers experienced increases in the level and uncertainty of their liability, as employers' liability laws and court decisions altered the traditional negligence system. Even though the changes in employers' liability largely benefited workers, labor leaders were dissatisfied with the results because many workers were still left uncompensated and for those that did receive remuneration, the amount typically did not replace lost income. Criticism of the negligence system was widespread across the United States by 1910, thus resulting in the rapid adoption of workers' compensation legislation across the country.

Some states enacted workers' compensation more quickly than others. In states where employers' liability was increasing relatively sharply, the legislation was enacted more swiftly. In addition, workers' compensation was more likely to be adopted in areas where organized labor and manufacturing employers and workers had more political strength. Larger and more productive employers pressed for adoption even more strongly than other members of the manufacturing lobby. Support for workers' compensation was not limited to narrowly defined economic interest groups, however. Greater support among the electorate for the broad-based program of Progressive Era reformers, as embodied in the support for Theodore Roosevelt in 1912, appears to have contributed to earlier adoption of workers' compensation in a number of states. In general, workers' compensation was *not* the result of one interest group using the political process to extract benefits at the expense of others. Instead, it was legislation that united a broad-based coalition of workers, manufacturing employers, and insurance interests attempting to reform the negligence liability system that all agreed was ill suited for the modern industrial economy.

Notes

1. See Stigler (1971), Peltzman (1976), and Becker (1983) for theoretical treatments of the role of interest groups in shaping regulations. Their models are rich enough to allow for either a "capture" or multiple interest group framework. For the classic work on "rent-seeking," see Tullock (1967). Goldberg (1976) and Williamson (1976) discuss situations in which interest groups might lobby the government to correct a market imperfection and the resulting legislation enhance economic efficiency. Finally, Poole and Rosenthal (1997) claim that broad-based political coalitions have been underemphasized as facilitators of government intervention.

2. Lubove (1967) explains employers' support for workers' compensation in similar terms. He argues that employers sought the legislation because state legislatures and the courts were increasingly favoring injured workers in their efforts to collect compensation. By contrast, Weinstein (1967) argues that employers supported workers' compensation as a way to undermine the growing movement among workers to unionize.

3. For an analysis of states' decisions to enact state workers' compensation funds, see chapter 6.

4. In 1920 the actual level of employer liability premiums was $86 million. Based on the annual growth rate of employer liability premiums between 1905 and 1911, the years prior to the adoption of workers' compensation, we estimated that employer liability premiums would have grown to $129.5 million in 1920. Premium estimates are from *Hayden's Annual Cyclopedia of Insurance* (1906, 4, 161; 1913, 4, 117) and *Annual Cyclopedia of Insurance* (1921, 229–30, 287–88, 465).

5. See also Clark (1908, 13–14).

6. In contrast to the U.S. courts, the English courts allowed ex ante contracts to stand. Clark (1908, 14) found rulings in Georgia (*Western & A. R. Co. v. Bishop,* 50 Ga. 465 [1873]) and in Pennsylvania (*Mitchell v. Pa. R.,* 1 Am. Law. Reg. 717 [1853]) that allowed ex ante contracts that would have barred negligence suits after an accident occurred. However, the Georgia Code of 1895 included specific language that nullified such contracts. Meanwhile, the Pennsylvania Supreme Court in a ruling about acceptance of relief benefits as a bar to a lawsuit stated "that an agreement to accept benefits, the acceptance to operate as a waiver of the right of action was not contrary to public policy, *inasmuch as it was not the signing of the contract prior to the injury (which would not in itself be effective) but the acceptance of benefits after the injury that barred the action* [emphasis added]." See *Johnson v. Philadelphia R. Co.,* 168 Pa. 134, 20 A. 854 (1894). In addition to the common law rulings, Clark and the U.S. Commissioner of Labor (1908) found that twenty-eight states had statutes voiding such ex ante contracts, but many were statutes only pertaining to the railroad industry. States with laws preventing contracts in railroading included Arkansas, Florida, Iowa, Minnesota, Mississippi, Missouri, Nebraska, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, South Carolina, South Dakota, Texas, Virginia, and Wisconsin. States with general laws were California, Colorado, Georgia, Idaho (1909), Indiana, Massachusetts, Montana, Ohio (1910), and Wyoming (constitution). Missouri had a law covering railroads and mining and Nevada had a law covering railroads, mines, and mills (we treated these as general laws). Alabama had a similar law in its 1907 Code that Clark missed because he reported on the Code of 1896. Some states later passed additional laws against ex ante contracting.

7. Workers' waiving their rights to a lawsuit prior to an accident was central to workers' compensation's success. When New Hampshire first adopted the legislation, for example, workers had the option to choose between a lawsuit and the workers' compensation benefits after the accident. Employers retained the contributory negligence defense if the worker chose to go to court. The U.S. Bureau of Labor Statistics (1917, 74–75) stated that this feature of the law may explain why only nineteen employers decided to abide by the terms of New Hampshire's voluntary workers' compensation law. Arizona had a similar workers' compensation law but it required employers to join the system. The state completely revamped its law in the 1920s, and this provision was scrapped.

8. The state legislatures in the period 1910 to 1920 never experimented with laws that allowed workers and employers to freely choose their own benefit levels in ex ante contracts. Massachusetts in 1908 and New York (for nonhazardous work) in

1910 established opportunities for workers and employers to sign ex ante contracts, but the benefit levels were controlled by the state board of arbitration and conciliation in Massachusetts and set by the legislature in New York. No one submitted contracts for approval in Massachusetts because the one-year limit on contract duration "rendered it undesirable for employers to formulate plans and to incur the trouble and expense necessary to operate them" (Massachusetts Commission for the Compensation for Industrial Accidents 1912, 14–17). In New York only 38 of 440 employees of one firm had consented to the voluntary system by July 1913. The administrative costs of setting up the New York contracts were prohibitive because the employer and each employee had to sign and submit written agreements to the county clerk, which was a more cumbersome system than the standard methods of election in later workers' compensation laws (Clark 1914, 116–17).

9. The following states eventually adopted compulsory legislation: California, New York, Illinois, Ohio, Washington, Maryland, Arizona, Oklahoma, Wyoming, Idaho, Utah, North Dakota, Arkansas, and Mississippi.

10. States had a wide range of laws specific to the railroad industry, but the focus here is on nonrailroad activity because interstate railroad accidents did not fall under the domain of states' workers' compensation laws. The vast majority of railroad accidents were covered by the Federal Employers' Liability Acts of 1906 and 1908. Some nontrain, noninterstate commerce accidents were handled under state workers' compensation laws, however. In addition, about eight more states in 1900 had laws that restated the common law without changing any of the basic negligence rules. See appendix G for further details on employers' liability laws of the early twentieth century.

11. See Asher (1983) for a complete discussion of the campaign for employers' liability in New York. Many of the bills died in committee. Several passed one chamber of the legislature before dying in the second chamber, but Asher claims that this was a standard tactic used by the legislators to reduce criticism that they were not sensitive to the topic.

12. The proposed bill would have allowed an injured worker to sue if he had warned the employer of defects and then continued working. Organized labor was dissatisfied because the injured worker was required to give notice within sixty days, compared with an earlier three-year limit, and the burden of proof was on the worker to prove that he had given notice of the dangerous condition to his employer (Asher 1983).

13. Asher (1983) suggests several reasons for organized labor's limited success in increasing employers' liability in New York. First, organized labor never represented more than 10 percent of the voting constituency, so their numerical influence in affecting election outcomes was necessarily limited. Second, there were divisions within organized labor ranks. The railroad brotherhoods and many other unions never joined the WFSNY, and even within the WFSNY there was a division between the New York City unions and their more conservative upstate counterparts. Thus, in most years, organized labor was politically ineffective. On a few occasions when politicians felt vulnerable in close elections, however, organized labor was able to mount strong campaigns because they essentially became swing voters in the next election. But these opportunities were limited. In the final analysis employers felt increasing pressure in the early 1900s to consider workers' compensation as a viable option because the 1902 employers' liability law led to more lawsuits and increases in the amounts awarded to workers. Although organized labor was never able to mount a successful campaign, employers feared the threat of more drastic laws.

14. See Mengert (1920, 5–6). In 1904 Republicans had a four to one majority in the House and a seven to one majority in the Senate. The Williams bill passed the Senate twenty-two to four, and the House fifty-seven to twenty-five (Ohio Senate *Journal,* 1904, 710; Ohio House of Representatives *Journal,* 1904, 368). The Williams bill was infamous because it was lost for a period after it was sent to the governor for signing. Mengert mentions gossip that opponents of the bill stole it. The attorney general of Ohio was said to have decided that he could reconstruct the bill from the records, and the public was told the bill had been found folded into another bill. See *Ohio State Journal,* 22 April 1904; *Cleveland Plain Dealer,* 29 April 1904; *Ohio State Journal,* 1, 28, and 30 April 1904.

15. At the same time there were cracks developing in the Republican's conservative hegemony over Ohio politics. In the 1908 election, Democrat Judson Harmon was elected governor, despite the Taft presidential victory and the election of a complete Republican slate for other state offices (Warner 1964, 215, 220; Aumann 1942, 9–10). Harmon was not considered a true progressive, although he sought to make government operate more efficiently. As a consequence, he felt that great improvements could be made in delivering compensation to injured workmen. Most of Harmon's efforts were defeated by a strong Republican legislature in 1909.

16. The same bill was introduced by Norris in the House (House Bill No. 24) and Mathews in the Senate (Senate Bill No. 28) seeking comparative negligence, limits on the fellow servant defense, and further limits on the assumption of risk defense. The political infighting involved a series of attempts at bill-swapping. Representative Brenner in the House led the way for the business groups by proposing a resolution to delay all action on employers' liability and to form a commission to study the issue carefully. His proposal included referring the resolution to himself as a committee of one to be allowed to report it to the floor of the House at the proper time. Despite the efforts of progressive legislators Evans of Cleveland and Ratliff of Cincinnati to get the Brenner resolution referred to the Labor Committee, the House decided instead to refer the resolution to Brenner's committee of one. After the Labor Committee recommended the Norris bill for passage, Brenner sought to amend the bill by fully replacing it with his commission proposal. Brenner's replacement amendment was hotly contested but won by a vote of fifty-nine to forty-one, with seventeen not voting. The House then quickly passed Brenner's version of the Norris bill, which established the commission, without changing the employers' liability law, by a vote of seventy-seven to twenty.

In the Senate the procedure was reversed. Senator Mathews managed to reinstate the employers' liability language into the bill. An attempt by Senator Patterson to replace the employers' liability language with a commission yet again lost by a vote of ten to twenty-two. The Senate then passed the employers' liability version of the Norris Act twenty-six votes to one and sent it back to the House. The House agreed to pass the employers' liability version of the Norris Act, ninety-three to five, but it was a compromise in which the women's hours bill would not come to a vote. This political history is drawn from Foote (1910, 14), Ohio State Federation of Labor (1910, 10), Ohio House of Representatives *Journal* (1910, 253, 537–39, 799–803), Ohio Senate *Journal* (1910, 422–25, 449–50, 479–81), Ohio State Board of Commerce (1910, 60), *Ohio State Journal,* 15 and 31 March 1910; 7, 14, 27, and 28 April 1910, and *Cleveland Plain Dealer,* 15 and 18 March 1910; 5, 7, 27, and 28 April 1910.

17. The women's eight-hour bill was described by the Ohio Manufacturers' Association a year later as a "milker pure and simple" and when passed in modified form was passed "in a spirit of pique because members of the House and Senate had not been paid the amount of money that they expected to make for their

services in defeating it." In the 1911 General Assembly a huge bribery scandal developed over such milker bills. In the words of the secretary of the Ohio Manufacturers' Association, during the session of the General Assembly over the past twenty-five years, "to my personal knowledge, there have been introduced a large number of bills, the sole purpose of which has been to compel persons or interests to purchase their defeat. For very many years, the persons or interests against whom these bills were directed felt and believed that the easiest and cheapest way out was to pay the price demanded, and go on about their affairs" Ohio Manufacturers' Association *Records* (1911).

18. See House Bills (HB) 310 and 526 in 1895; HB 285 and Senate Bills (SB) 212 and 213 in 1897; HB 294 and 336 in 1899; HB 167 and 406 in 1901; SB 34 and 72 and HB 148 in 1903; HB 98, 129, 178, and 385 and SB 169 in 1905; the "Graves bill" in 1907; and SB 171, 205, and 217 in 1909 from volumes *Washington Senate Bills* and *Washington House Bills*, various years. Some of these bills focused on safety regulations, which affected employers' liability by establishing what was considered employer's negligence.

19. The *Green* case was a coal mining case. A miner asked for more timbers to support the roof. His foreman said there were no more timbers, so the miner quit for the day. The next day there were still no timbers, the miner started working and was harmed. See report of the *Green* decision in 30 Wash. 87–116 (1902); see also Tripp (1976, 533).

20. See Washington Insurance Commissioner (1902, 47, 60; 1904, 25, 38; 1906, 32, 47; 1908, 30, 44; 1909, 27, 31; 1910, 28; 1911, 41); see also Tripp (1976, 534).

21. The exception to the rise was a drop in cases to twenty-nine in 1907. The number of Washington Supreme Court cases was compiled from *Washington Reports*, 1904 to 1911. The increase in the cases probably signals an increase in the uncertainty about how the law would be applied.

22. We focused on nonrailroad cases and railroad nontrain cases because these were the types of accidents covered by workers' compensation laws. The trend in table 4.1 is unchanged when railroad cases are included. Including railroad cases, the number of state supreme court cases rises from 220 in 1900 to 640 in 1909, declines to 551 in 1910, and rises to 609 in 1911.

We ran trend regressions for each state and found that in thirty-one states the increased number of cases was statistically significant. In sixteen states there was no statistical trend and in one state there was a statistically significant downward trend. Thus, the pattern for the United States shown in table 4.1 was widespread across the country and not driven by a handful of litigious states.

23. Ohio Employers' Liability Commission (1911, xxxix).

24. Ibid., 204, 210.

25. Washington Industrial Insurance Department (1912, 19).

26. Washington Insurance Commissioner (1902, 47, 60; 1910, 28; 1911, 41).

27. We ran trend regressions for each of the states and found that in thirty-nine states there was a statistically significant increase in the ratio. In seven states there was no statistical trend and in two states there was a statistically negative trend.

28. We created a workplace-accident risk index based on each state's industrial mix and the premiums that employers in each industry paid per one hundred dollars on the payroll into the Ohio State Workmen's Compensation Fund in 1923 (see Ohio Industrial Commission 1923). Ohio had a wide range of industries and the Ohio Industrial Commission sought to price the insurance based on actuarial experiences. We matched the premiums for each industry with the average employment in that industry in each state in 1899 and 1909. The risk index is the weighted average of the insurance premiums across industries using the average employment

in each industry as weights. Changes in the risk index between 1899 and 1909 are caused only by changes in the distribution of employment across various types of manufacturing. The index rose from 1.3 in 1899 to 1.5 in 1909.

29. Weinstein (1967, 162) claims that the AALL represented the interests of large employers, accepting funding from Gary, Rockefeller, and Macy. Moss (1996) claims, however, that the AALL was more independent because it was led by academic economists like John R. Commons, who called for many reforms that employers opposed.

30. Ohio State Federation of Labor (1915a, 23–25).

31. The transition in the attitudes of employers and organized labor are illustrated by Asher's (1969) research on Massachusetts. Although the issue of workers' compensation was broached in the 1903 committee, organized labor's solution was to push for a further expansion in employers' liability. In 1904 organized labor's adamant demand to retain the right to sue for damages as part of any workers' compensation bill destroyed whatever small chance Massachusetts had of passing a workers' compensation bill (p. 457). Annually between 1905 and 1907 organized labor in Massachusetts lobbied unsuccessfully for employers' liability bills that would have limited the assumption of risk and contributory negligence defenses. The failure to achieve their objectives during this period may have caused the labor leaders to change course. In 1907 a committee was formed to consider both employers' liability and workers' compensation bills during the legislative recess. Labor leaders on the committee began to favor workers' compensation, as did leaders from the Massachusetts Civic League. In 1908 the committee endorsed the social principle of workers' compensation and the legislature passed a bill allowing employers to voluntarily establish no-fault accident compensation plans that resembled the workers' compensation programs to come later. No employer created a plan, however. By 1910, the Massachusetts Federation of Labor, the Boston Chamber of Commerce, and the New England Civic Federation all had become interested in a workers' compensation bill, although each group had its own ideas about what the bill should look like. The nature of their compromise is discussed in chapter 5.

32. State-level regressions show that in thirty-one states real spending on labor issues increased at a statistically significant trend. In eight states there was no statistical trend and in four there was a statistically negative trend, primarily because nominal spending remained constant over the period. Five states had no spending on labor issues during the period.

33. For an example of early labor department advocacy for workers' compensation, see Minnesota Bureau of Labor Statistics (1893, 117–55).

34. Commissions were established in Minnesota, New York, and Wisconsin in 1909; Illinois, Massachusetts, Missouri (appointed by governor), Montana (appointed by governor), New Jersey, Ohio, and Washington (appointed by governor) in 1910; Colorado, Connecticut, Iowa, Michigan, Nebraska, North Dakota, Oregon (appointed by governor), Pennsylvania, Texas, and West Virginia (appointed by governor) in 1911; Louisiana in 1912; and Indiana, Maryland (appointed by governor), Tennessee, and Vermont in 1913.

35. The Maryland legislature in 1902 was the first to actually adopt a compensation law that set out to provide guaranteed benefits to injured workers in several hazardous industries. But because the legislation gave the insurance commissioner judicial powers and deprived injured workers of the right to a jury trial, it was ruled unconstitutional two years after its passage. And in 1909 the Montana legislature passed a compulsory compensation law that pertained only to the coal mining industry. Although the law required both employer and employee contribu-

tions into a cooperative insurance fund, it still allowed an injured employee (or his family) to sue for damages under the old liability system. Since the law forced the employer to bear a double burden, the Montana Supreme Court ruled it unconstitutional in 1911 (Weiss 1966, 571).

36. See chapter 5.

37. Recall that total employers' liability premiums may have increased either because rates increased or because more employers chose to insure their accident liability risks. Since the multivariate analysis controls for changes in manufacturing accident risk and for the change in employers' liability laws, the measured impact of the insurance ratio might suggest that employers saw workers' compensation as a means to control their insurance costs.