LONG-TERM TRENDS RELATED TO THE GRAND BARGAIN OF WORKERS’ COMPENSATION

COMMENT*

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I. INTRODUCTION

I have the honor of commenting on a marvelous and comprehensive paper by Professor Emily Spieler that discusses the changes over the last 100 years in workers’ compensation and highlights the challenges to the Grand Bargain of workers’ compensation today.1 Professor Spieler emphasizes how current workers’ compensation programs in 2017 fall short of a standard to which they should be held.2 She largely

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2. Id. at 981–1008.
bases that standard on the nineteen essential recommendations of the National Commission on State Workmen's Compensation Laws, headed by John Burton in the early 1970s, that pointed out great shortfalls in workers' compensation.\(^3\) Although reform commissions have often set standards that few ever meet, the National Commission had representatives from a broad range of constituencies at the time and established a consensus among that group.\(^4\) As a result, the states then responded with a series of reforms that improved the benefits paid to workers and the operation of workers' compensation between the late 1970s and 1980s.\(^5\) Arguably, the commission was one of the most successful commissions in American history, particularly given that the federal government never established authority over workers' compensation and that fifty states and the District of Columbia each had to pass a broad range of new regulations to comply with the recommendations.\(^6\) In 1972, the average number of the Commission's nineteen essential recommendations met by the states was 6.79.\(^7\) The average had risen to 12.1 by 1980 and then rose again to 12.85 in 2004, even though the number of requirements met had fallen in eleven states.\(^8\)

As an economic historian who wrote about the origins of workers' compensation, I would like to fine-tune Professor Spieler's description, which paints a gloomy picture of the current setting. In the material presented here and also discussed in Professor Spieler's article, there


\(^6\) Id.

\(^7\) Id. at 29 app. B.

\(^8\) Id. Among the eleven states with reductions in requirements were Colorado (16 in 1980 to 12.75 in 2004), Florida (10.5 to 9.75), Georgia (9.5 to 8.75), Louisiana (11.25 to 10.25), Maine (13.5 to 10.75), Michigan (10 to 9.75), Minnesota (12.75 to 9.5), Montana (15.5 to 12.75), New Hampshire (18.5 to 15.75), Ohio (16.5 to 15.5), and West Virginia (14.75 to 13.75). Id.
are a number of positive long-term trends that deserve more emphasis than she gives them, including some that have continued into the twenty-first century.\textsuperscript{9} Since state workers’ compensation laws were introduced in the 1910s, workers face much lower risk in the workplace,\textsuperscript{10} coverage has been extended to more types of workers,\textsuperscript{11} and the coverage has expanded beyond accidents to include occupational diseases and mental stresses.\textsuperscript{12} Statutory benefit levels, adjusted for inflation, have increased throughout the last century, even in the last 15 years, and treatment and recovery rates for workers have improved.\textsuperscript{13} The medical care provided to workers has become increasingly more effective as general medical care has become increasingly effective. Finally, workers now have access to other social insurance programs that provide alternatives for disabled workers to receive benefits; these did not exist when workers’ compensation was first introduced.

Despite these positive trends, Professor Spieler accurately identifies a series of challenges to access to workers’ compensation that have worked against the positive trends in the past twenty-five years. Typically, they are erosions of the Grand Bargain through changes in the administrative rules and operation of the programs. Workers’ legal costs eat into the benefits that they receive. The administrative processes appear to have slowed. Medical costs have risen rapidly over the past thirty years, leading to employers and insurers exercising tighter control over access to medical care. Thus, the real value of medical services provided under workers’ compensation may have declined. More employers are self-insuring and are challenging claims directly, causing more conflict in the workplace.\textsuperscript{14}

II. THE ORIGINS OF THE GRAND BARGAIN

Before workers’ compensation was adopted in the 1910s, negligence liability under the common law was the basis for workplace accident

\textsuperscript{9} See infra Part III.
\textsuperscript{10} Price V. Fishback & Shawn Everett Kantor, \textit{A Prelude to the Welfare State: The Origins of Workers’ Compensation} 14 (2000).
\textsuperscript{13} Cf. U.S. DEP’T OF LABOR, supra note 5, at 12 (noting that by the mid-1980s, “inflation-adjusted statutory benefit levels began to decline”).
\textsuperscript{14} See Spieler, supra note 1, at 934–55.
compensation.\(^{15}\) Under negligence liability, a worker was supposed to receive full compensation for injuries caused by the negligence of the employer.\(^{16}\) Under the common law, the employer would not have to compensate workers injured by the negligence of fellow workers, if the worker's own negligence contributed to the accident or if the worker knew the risk and assumed it.\(^{17}\) Quite a few states eliminated one or more of these defenses by statute before workers' compensation laws were introduced.\(^{18}\) The actual court process was costly, so the vast majority of all accident cases were settled out of court.\(^{19}\) The arguments often centered on the employer's liability, so only about fifty percent of families of fatal accident victims received compensation; a large share of injured workers received no compensation and many accidents were never reported.\(^{20}\) The common law ideal for full compensation of an accident was rarely met.\(^{21}\) "Jackpot" verdicts of large payments were rare, and the average amount paid to those who actually were compensated for fatal accidents was about a year's income.\(^{22}\)

Worker's compensation replaced negligence liability as the basis for accident compensation in the vast majority of states between 1911 and 1920; the process was complete when Mississippi adopted it in 1948.\(^{23}\) The Grand Bargain involved workers giving up their rights to a negligence suit before any accident occurred.\(^{24}\) In return they were to receive up to two-thirds of their weekly wage and medical care for all accidents in the course of employment that put them out of work for more than a waiting period.\(^{25}\) States often imposed a weekly maximum benefit that was less than two-thirds of weekly wage for many workers, and the payments for fatalities and long-term disability lasted only five to six years in many states.\(^{26}\) Workers' compensation was to have a far more streamlined administration to reduce delays and cover all

\(^{15}\) *See* Fishback & Kantor, *supra* note 10, at 1–6.

\(^{16}\) *Id.* at 30–34.

\(^{17}\) *Id.* at 28.

\(^{18}\) *See id.* at 1–4.

\(^{19}\) *See id.* at 33.

\(^{20}\) *Id.* at 11–15.

\(^{21}\) *See id.* at 1–6.

\(^{22}\) *See id.* at 9–12.

\(^{23}\) *See id.* at 1–6, 103–04 tbl.4.3.

\(^{24}\) *See id.* at 9–14.

\(^{25}\) *See id.* at 56, 208.

\(^{26}\) *See id.* at 208–17.
accidents.\textsuperscript{27} Comparisons of actual benefits received under workers' compensation to actual benefits received in negligence settlements and court awards demonstrate that the benefits paid were typically higher under workers' compensation than under the prior negligence system.\textsuperscript{28}

Shawn Kantor and I found that a majority of people in each of the major interest groups involved had actually gained from the law.\textsuperscript{29} Most employers faced reduced uncertainty about jackpot verdicts, faced reduced conflicts with the workforce over accident liability, and were able to pass many of the costs of the better benefits back to nonunion workers as wages adjusted in the labor market.\textsuperscript{30} Workers gained from the law's coverage of all accidents and higher post-accident benefit payments.\textsuperscript{31} Even if workers paid for the benefits through lower wages, they were better insured against accident risk.\textsuperscript{32} Insurers could sell more coverage of workplace accidents, unless a monopoly state fund was established, because they were covering all workers and a large majority of employers.\textsuperscript{33} Further, the benefit levels of two-thirds or less provided insurers protection against worker "moral hazard," in which better protection against accident risk gave workers an incentive to take more risks or to falsely report injuries.\textsuperscript{34}

\section*{III. The Good News}

Over the course of the century there have been many positive trends in the arena of workplace accidents and workers' compensation. Workers' compensation coverage has expanded from only about fifty percent of employed workers in 1940 to roughly ninety percent in 2015.\textsuperscript{35} Most of the original state laws allowed employers to elect whether to come under workers' compensation; by 2004, all but one state required employers to be part of the system.\textsuperscript{36} Over the course of the century, workers' compensation has expanded from covering only

\begin{itemize}
\item 27. See id. at 59.
\item 28. Id. at 59, 198.
\item 29. Id. at 199.
\item 30. See id.
\item 31. Id. at 54–55, 198.
\item 32. Id. at 55.
\item 33. Id. at 198–99.
\item 34. Id. at 55–56, 201.
\item 35. See SUSAN B. CARTER ET AL., HISTORICAL STATISTICS OF THE UNITED STATES 2-83, 2-785–86 (Millennial ed. 2006) (providing statistics for the years 1941 through 1990); see also MARJORIE L. BALDWIN & CHRISTOPHER F. MCLAREN, NAT'L ACAD. OF SOCIAL INS., WORKERS' COMPENSATION: BENEFITS, COVERAGE, AND COSTS 1 (2016).
\item 36. BALDWIN & MCLAREN, supra note 35, at 6.
\end{itemize}
accidents to covering lost income and medical costs associated with occupational diseases. Problems developing from work-related stress are now covered in a number of states.

The benefits established in the state statutes, adjusted for inflation, have risen in real terms more than three-fold between 1947 and 2000, while the ratio of statutory benefits to wages rose 2.5 times. Figure 1 shows that an index of statutory benefits (diamonds) created by Samuel Allen rose from 100 in 1947 to around 185 in 1970, and then jumped markedly in the 1970s to over 300 after most states responded to the National Council Report by tying their weekly maximum benefit payments to the state average wage. Between 1980 and 2000 the index rose much more slowly to around 325. The ratio of the benefit index to an index for wages adjusted for inflation shows that the statutory benefits rose faster than real wages rose into the 1970s. As real wages stagnated, the benefit-to-wage ratio rose from around 125 in the early 1970s to over 200 by the early 1980s, and then rose steadily to around 250 in the 1990s. The ratio of statutory benefits to earnings varied greatly across the country, however, as did the rise. Figure 2 shows a scatter plot of the ratio of expected statutory benefits to

37. Id.
38. See id.
39. See infra Appendix A fig.1.
40. The calculations and graphs are based on data compiled by Samuel Allen for his dissertation. See Samuel K. Allen, Struggle for Regulatory Power Between States and the US Federal Government: The Case of Workers' Compensation Insurance 1930-2000, 2 J. ECON. & POL. ECON. 351, 365 (2015); Samuel K. Allen, The Economics and Politics of Workers' Compensation: 1930-2000, at 174–76 (2004) (Ph.D. dissertation, University of Arizona) (on file with the University Libraries, University of Arizona) [hereinafter Allen, Dissertation]. They combine information from the statutes for each state on the replacement rate, weekly maximums, and the length of time payments are made for several types of accidents. See Allen, Dissertation, supra note 40. After calculating the present value for payments for each type of accident using a national average weekly wage, the present values are then weighted by the probability that an accident in that class will occur to get a measure of expected benefits. Id. These accident weights are held constant over time so that the changes measure only changes across states and time due to differences in the statutes and changes in the national weekly wage. Id. Once the expected benefits are divided by the national weekly wage, the only reason for differences in the ratio is differences in the statutes across time and place. Id.; see also infra Appendix A fig.1.
41. See infra Appendix A fig.1.
42. See infra Appendix A fig.1.
43. Infra Appendix A fig.1.
44. Infra Appendix A fig.1.
average annual earnings in 1970 and 2000 in each state.\textsuperscript{45} Oregon had a high ratio of benefits to earnings at around 0.8 in both 1970 and 2000.\textsuperscript{46} At the bottom end of the scale, Mississippi's ratio in 1970 was 0.2, but rose close to 0.4 in 2000, while most states rose from benefit/earnings ratios below 0.4 in 1970 to well above 0.4 by 2000.\textsuperscript{47} 

Although Allen's estimates are not available after the year 2000, the nominal value of the weekly maximum benefit rose, in all of the states and Washington, D.C., between 2000 and 2016.\textsuperscript{48} After adjusting for inflation with the Consumer Price Index (CPI), the real maximums rose in Washington, D.C. and in forty-seven states.\textsuperscript{49} North Dakota's 73\% rise was the largest.\textsuperscript{50} The rise was more than 46\% in five more states, while benefits increased between 20 and 36\% in nine states; the rise was between 9 and 14\% in twenty-nine states; four states had increases between 4 and 7\%; only Michigan, Minnesota, and Maine had declines.\textsuperscript{51} Meanwhile, national average weekly earnings in manufacturing after adjusting for inflation rose by only 2.6\%.\textsuperscript{52} 

As Professor Spieler notes, workplaces have become increasingly safe over time.\textsuperscript{53} I want to highlight this again. The annual number of workplace deaths has fallen from over 20,000 in 1912 to 6,275 in 1995 to 4,386 in 2014.\textsuperscript{54} After dividing by the number of civilian people employed, the annual fatality rate for workers fell from more than 560 per million workers in 1912 to 50 per million in 1995 to 33 per million in 2014.\textsuperscript{55} This is an incredible statistic—the probability of dying in a

\begin{thebibliography}{99}
\bibitem{45} See infra Appendix A fig.2.
\bibitem{46} Id.
\bibitem{47} See infra Appendix A fig.1.
\bibitem{48} Weekly maximums for injuries occurring in different years are reported by the Social Security Administration. See U.S. SOC. SEC. ADMIN., PROGRAM OPERATIONS MANUAL SYSTEM: DI 52150.045 CHART OF STATES' MAXIMUM WORKERS' COMPENSATION (WC) BENEFITS (2017) [hereinafter POMS], https://secure.ssa.gov/poms.nsf/lnx/045215004.
\bibitem{49} Id. (citations omitted); BALDWIN & McLAREN, supra note 35, at 43 tbl.16. The 1995 number is higher than what Spieler reported in part because it includes all deaths among public and private employees. See id.
\bibitem{50} Id. (containing information on total employment in 1912 in table series Ba470-477); Fed. Reserve Bank of St. Louis, Civilian
\end{thebibliography}
workplace accident in 1995 was only nine percent of what it had been in 1912. Furthermore, the rate declined nearly one-third between 1994 and 2014. During that time, non-fatal injury rates fell markedly in nearly every industry, and the shifts in employment moved large shares of people into safer employment. The trend has continued downward since the early 1990s. The number of non-fatal occupational injury and illness cases leading to any lost days of work per 100 full-time workers fell from 8.4 in 1994 to 5.7 in 2001, a thirty-two percent drop. After changes in definitions and reporting by the Occupational Safety and Health Administration (OSHA), the new measured rate continued to fall from 5.3 in 2002 to 3.2 in 2014, an additional forty percent drop.

At the time when workers’ compensation was introduced in the 1910s, the American safety net was limited to general relief, almshouses, and hospitals provided by local governments and charities. Since that time, the safety net aside from workers’ compensation has expanded rapidly, largely through other forms of social insurance, including Unemployment Insurance, Social Security, Medicare, and Social Security Disability Insurance ("SSDI"). Many workers also have access to private life insurance

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57. Id.

58. See id.

59. Id.


64. See Kearney, supra note 62, at 1–2.
and short-term and longer-term disability insurance through their employers. In all of these cases the employer and/or the worker pays some form of premium into the program. Several of the people attending the symposium noted that workers may have chosen to obtain SSDI rather than go through the process of trying to show that their disabilities were work-related. This additional option for benefits is good news for the welfare of the worker. On the other hand, it raises a series of policy questions as to which social insurance program is the appropriate one to provide benefits for disabled workers. Under the current system, it appears that the payment of benefits for a work-related disability should come from the employer's workers' compensation insurer, who has received premiums from the employer. Yet, one of the thorniest issues in workers' compensation for many kinds of soft tissue injuries is determining how much of the injury is work-related and how much is not. Under SSDI, the premiums for social insurance are shared by the worker and the employer, so it is possible that it is more efficient for a disability that developed outside work but was worsened by work conditions to be covered by SSDI.

Many have the impression that the American system of providing a safety net, as opposed to the Nordic countries' more universal approach to social welfare, means that the United States is a laggard in social welfare spending on social insurance and poverty programs. A careful look at the OECD statistics in 2003 suggests a more complex story. The Nordic countries tax the recipients' benefits at a relatively high rate and do not have as many programs like workers' compensation that are unfunded government mandates or tax subsidies like the Earned Income Tax Credit. Once these adjustments are made, the United States spent about eighteen percent relative to GDP on public social


67. See BALDWIN & MCLAREN, supra note 35, at 7, 9.

68. John F. Burton, Jr. & Xuguang (Steve) Guo, Improving the Interaction Between the SSDI and Workers' Compensation Programs, in SSDI SOLUTIONS: IDEAS TO STRENGTHEN THE SOCIAL SECURITY DISABILITY INSURANCE PROGRAM 3 (2016).


70. Id. at 12–13.
welfare, compared to twenty percent for Finland and twenty-nine percent for Sweden in 2003.\textsuperscript{71} The United States has substantially higher per-capita incomes than Finland and Sweden.\textsuperscript{72} Multiply those percentages by per-capita income and the United States was spending around $5,500 per capita on social welfare (in 1990 purchasing power parity), while Finland was spending approximately $4,200 and Sweden approximately $6,200.\textsuperscript{73} We must also consider that the Nordic expenditures on medical care for their entire population is included in the government spending statistics, while the government medical spending in the United States accounts for only about half of the overall medical spending for the entire population. Once private medical expenditure is added to the totals, spending on private and public social welfare was close to $8,000 per capita on social welfare in the United States, compared with close to $6,800 for Sweden and roughly $5,000 for Finland.\textsuperscript{74} These figures are rough estimates but they show that the United States spends similar amounts or more on social welfare activities; it just does it quite differently from the Nordic countries. Comparisons of how people fare at different percentiles of the income distribution, after taxes and government transfers are included, suggest that people at the tenth percentile within each of the three countries have about the same income and that people at higher percentiles within a country fare better in the United States.\textsuperscript{75} However, it appears that the U.S. safety net is more porous and that people below the tenth percentile in the United States fare more poorly than those below the tenth percentile in the Nordic countries.\textsuperscript{76}

Yue Qiu and Michael Grabell of \textit{ProPublica} have provided a great service by compiling a list of major reforms in workers' compensation on their website in March 2015.\textsuperscript{77} They combined this information with

\begin{itemize}
  \item \textsuperscript{71} Id. at 32 tbl.4.
  \item \textsuperscript{72} Id. at 13–14.
  \item \textsuperscript{73} Id. at 14.
  \item \textsuperscript{74} Id. at 14.
  \item \textsuperscript{75} Id. at 19.
  \item \textsuperscript{76} Id. at 20. See also id. at 19–20 for more extensive detail on this issue.
  \item \textsuperscript{77} See Yue Qiu & Michael Grabell, \textit{Workers' Compensation Reforms by State}, PROPUBLICA (Mar. 4, 2015), http://projects.propublica.org/graphics/workers-comp-reform-by-state?. Qiu and Grabell present an interactive graphic that presents brief descriptions of workers' compensations laws for each state, as well as recent changes in these laws. Id. The appendix, \textit{infra} Appendix B, has been populated based on information collected from Qiu and Grabell.
\end{itemize}
information on benefit levels from an actuarial firm through 2009, and afterward, from the Bureau of Labor Statistics, and then determined whether worker access to workers' compensation had expanded or declined in the prior decade. Their analysis suggested that access to workers' compensation benefits had expanded in eight states, stayed the same in eight states, and declined in the rest. After downloading their information on statutory reforms for each state, I have summarized those laws in a somewhat different way than they do in Appendix B. The goal is to show in one table how many states passed each of the types of laws and when the laws were passed. I then categorized whether the laws expanded or reduced access to workers' compensation benefits.

The wide range of laws summarized in Appendix B show just how complex the process of distributing benefits under workers' compensation can be. The reforms included changes in benefit levels for specific accidents, the time limits for benefit payments for classes of accidents, the eligibility of classes of workers, the range of attorney fees, standards for evaluating the extent of injuries, fee schedules for medical treatments, and a variety of other factors. Each of these changes influence how much compensation the worker receives, and many influence the compensation in ways not captured by the statutory benefits discussed above. Appendix B also serves as a guide to the number of states taking action in specific areas and the number of actions taken by some states.

The good news in Appendix B shows that states passed twenty-nine laws that increased death benefits and/or payments for funerals, and there were another twenty-nine laws that expanded compensation in some way for some type of injury in each state. If a state passed multiple reforms in the same years, the number of changes is shown in parentheses. Five states allowed injured workers to continue receiving workers' compensation benefits while also receiving Social Security old-age benefits, while eight state laws expanded coverage in various and sundry ways.

78. See Qiu & Grabell, supra note 77.
79. See id.
80. Infra Appendix B.
81. Infra Appendix B.
82. See infra Appendix B.
83. Infra Appendix B.
84. Infra Appendix B.
IV. THE BAD NEWS

Although there has been good news for workers in a long-run trend sense, Professor Spieler's article documents that there are a variety of ways in which the workers' compensation system is being challenged and the Grand Bargain eroded. Appendix B shows how widespread many of these changes have been since 2004. There were twelve laws that reduced statutory wage-replacement benefits for some class of workers. Even though the real value of statutory wage-replacement weekly maximum benefits have risen a great deal, access to workers' compensation benefits can be eroded in a variety of ways, including restrictions on the length of time payments are made, adjustments to eligibility requirements, shifting the benefit of the doubt away from workers in deciding the claim (eight states), raising the burden of proof on claims (Michigan), decisions about pre-existing conditions (eight states), and restrictions on classes of workers covered (seven). There were eight new laws that limit eligibility claims for some types of injuries; another five in Oklahoma and two in other states that limited the length of time that workers could receive benefits; six states closed or limited special funds for workers who were disabled a second time after earlier workplace injuries; eight states began using American Medical Association ("AMA") guidelines that were tougher than in the past in determining extent of disability; six more states raised the burden of proof for claims; three states capped disability for the elderly; several more restricted access to benefits in a variety of ways. Some of these laws that were passed in only one or two states were likely reactions to problems that arose in the operation of the system based on fraud or unusual events. By reading through some of the descriptions of the laws, one can imagine the headlines and investigations that led to the passage of the law. Yet, there are enough changes that have happened in five or more states that these laws have reached a point where they might turn into changes that become widely adopted.

85. See Spieler, supra note 1, at 934–55.
86. Infra Appendix B (look for all rows showing "R" for Reduced in column for "Access").
87. Infra Appendix.
88. Infra Appendix B.
89. See infra Appendix B.
The state that has mounted the greatest challenge to workers' compensation has been Oklahoma. Between 2003 and 2013, Oklahoma legislated twenty-six major changes, twenty-five of which reduced access to workers' compensation benefits.90 They passed a series of laws that reduced weekly benefits or cut the length of the benefit stream, adopted new AMA guidelines and changed the burden of proof for disability in ways that have made it more difficult for workers to obtain claims, limited workers' choice of doctors, tightened the review of medical claims, imposed and tightened medical fee limits, and limited occupational disease claims.91 In 2013, the state made a radical change by offering opportunities for employers to opt out of workers' compensation and maintain immunity against tort suits while creating their own plans, but these plans typically offered lower benefits than those in the law.92 Recently, the Oklahoma Supreme Court halted this last challenge to the integrity of workers' compensation by declaring the 2013 opt-out option unconstitutional.93

A large share of the legislative action in the Appendix relates to medical claims. Prior to World War II, medical benefits in nominal terms accounted for around 37% of workers' compensation payments. The nominal share fell to a low of about 29% around 1980; since that time, the nominal share has risen sharply to around 50% after 2010.94 When nonmedical benefits per covered worker are adjusted for the cost of living with the CPI and medical benefits per covered worker are adjusted for medical inflation with the Medical CPI, as in Figure 3, the real value of medical benefits have not caught up with the real value of nonmedical benefits because price inflation in health care has been much more rapid than general inflation.95 Consistent with the rapid rise in real statutory benefits in Figure 1 and expansions to cover occupational disease and psychological stress, nonmedical benefits per covered worker rose significantly through the early 1990s, even though accident rates were falling.96 Since the early 1990s, the real nonmedical benefits per covered worker have fallen as statutory benefit growth has

90. See infra Appendix B (look for "OK" in column listing states).
92. Id.
93. For an expanded description see id. at 950–51, nn.308–11.
94. See CARTER ET AL., supra note 35, at 2-785–86, for statistics on the medical and nonmedical spending.
95. See infra Appendix A fig.3.
96. See infra Appendix A fig.3.
slowed, more states have adopted the types of laws reducing access seen in the Appendix, and accident rates have continued to fall.97

After adjusting for the more rapid rise in health care inflation, the real amount of health care also rises until the early 1990s, but not nearly as fast as the nonmedical benefits.98 After the mid-1990s the real value of health care benefits does not fall as rapidly as the nonmedical benefits.99 The real value of medical care likely rose more than shown in Figure 1 because of known problems with the Medical CPI in dealing with new medical procedures.100 Yet, the gap in the real value of nonmedical benefits and medical benefits that appears after inflation adjustments is likely still quite large.

Worries about the rapid rise in health care costs led to a wide range of responses in workers' compensation programs that were designed to control costs in the 1990s, and that have continued in the 2000s.101 In the early 1990s, a number of states began including deductibles in their medical coverage. Appendix B demonstrates that since 2002, nineteen states have adopted medical fee schedules, while another twelve imposed limits on the workers' choice of doctors; nine increased their use of independent medical examiners to resolve treatment disputes; four established fee schedules for prescription drugs; four established new medical treatment guidelines; another four reduced or eliminated their deference to the worker's doctor when choosing treatments.102 These moves that limit medical coverage in state workers' compensation programs seem quite similar to actions that have been taken in Medicare and Medicaid social insurance health programs, actions that may have preceded the shifts in workers' compensation. Similarly, employer-based health insurance programs have also sought ways to deal with the rapid rise in medical costs by relying more on limited doctor networks, higher deductibles, high co-pays, and higher

97. See infra Appendix A fig.3.
98. See infra Appendix A fig.3.
99. See infra Appendix A fig.1.
100. For example, replacing major knee surgery with an expensive new arthroscopic surgery that reduces pain and recovery time appears to raise medical costs, but the quality of care has risen sharply. Before the new arthroscopic surgery, the cost of a surgery with the same pain and recovery time was essentially infinite. The Bureau of Labor Statistics has tried to make adjustments for this issue, but they are likely to be incomplete.
101. See infra Appendix B.
102. See infra Appendix B.
This has also been true in the insurance networks developed under the Affordable Care Act.104

V. CONCLUSIONS

The goal here has been to add some more information regarding long-term trends in workers' compensation from the beginning and regarding the breadth and depth of the recent changes in workers' compensation. When combined with the information provided by Professor Spieler, the long-term trends appear more positive than in her article, although there are still several substantial areas of concern. The information pertaining to wage replacement benefit levels listed in the statutes shows that the real value of benefits has risen faster than wages since World War II.105 The rise was particularly rapid in response to the National Commission report in the 1970s, but the pace of the rise has slowed a great deal since that time.106 The National Commission also led to substantial gains in a variety of areas of access to compensation in the 1970s. In 2004 forty-five states and Washington, D.C. were still following more than half of the recommendations and thirty-two were following more than two-thirds of the recommendations.107 Meanwhile, accident rates have fallen tremendously since the early days of workers' compensation and they continue to fall today.

Professor Spieler is right to highlight a number of areas of concern about the threats to workers' compensation over the last two decades.108 A significant share of the new restrictions on access are restrictions on medical care, designed to try to control a much more rapid rise in medical price inflation relative to prices in other parts of the economy.109 Workers' compensation programs are not alone in these areas, as other social insurance programs and private health insurers have been adopting similar controls.110 Many of the other changes that restrict access are more subtle changes that can strongly influence

104. See id.
105. See infra Appendix A fig.1.
106. See infra Appendix A fig.1.
107. See WHITTINGTON, supra note 3, at app. A, at 10–11; infra Appendix B.
109. See infra Appendix B.
110. See Tuttle, supra note 103.
decisions about the extent of the workers' injury and the workers' eligibility for compensation. Although such changes are not as easy to measure as the statutory benefits, they still can have powerful effects. These are serious challenges, some of which have been adopted by enough states so that many other states might follow suit in the future.
Figure 1: Indexes of Real Wage, Expected WC Wage Replacement, Ratio (1947=100), 1947–2000*111

* Based on national wages and no changes in accident rate

111. Source: Based on data collected and measures created by Samuel Allen. See generally Allen, supra note 40. The real wage is the national weekly average manufacturing wage.
Figure 2: Relative Expected Benefits, As a Percentage of the Average Annual Wage in Manufacturing¹¹²

Relative Expected Benefits
As a Percentage of the Average Annual Wage in Manufacturing

112. Source: Based on data collected and measures created by Samuel Allen. See id.
Figure 3: Nonmedical Benefits and Medical Benefits per Covered Worker, Adjusted by the Appropriate CPI in 1982–1984 Dollars, 1940–2014

Sources: Wage replacement benefits are adjusted by the overall CPI and medical benefits are adjusted by the Medical CPI, which are series CPIAUCNS, and CPIMEDDNS at the Federal Reserve Bank of St. Louis's FRED websites. See Consumer Price Index, supra note 48. Between 1940 and 1998 the medical and wage replacement payments are from series B513 and B514 in CARTER ET AL., supra note 35, at 2-785–86. After 1999 they are from BALDWIN & MCLAREN, supra note 35, at 19. Statistics on covered workers for 1994 to 2014 are also from BALDWIN & MCLAREN, supra note 35, at 19. Statistics from 1989 to 1993 are from ISHITA SENGUPTA ET AL., WORKERS’ COMPENSATION: BENEFITS, COVERAGE, AND COSTS 4 (2009). For years before 1988, series B511 are from CARTER ET AL., supra note 35, at 2-785–86. Data for covered workers was interpolated by multiplying by 1.1062 to adjust for the fact that the estimates of workers covered in id. for the years 1989 to 1995 were 10.62 percent lower on average than the estimates reported by SENGUPTA ET AL., supra note 113, at 4.
APPENDIX B

Table: States and Years in Which Reforms to Workers’ Compensation Were Adopted, 2003-2013

Table Key:
Category: Administration (A); Attorney Fees (AF); Compensation (Cm.); Coverage (Co.); Legal Standard (LS); Medical Care (MC); No Reform (NR); Opt-Out (OO)
Access: Expanded (E); No Change (NR); Reduced (R); Uncertain (U)

<table>
<thead>
<tr>
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<th>No.</th>
<th>Year: State (No.)</th>
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</table>

114. Source: Compiled from information reported by Qiu & Grabell, *supra* note 77.
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<tr>
<th>Category</th>
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<th>Year: State (No.)</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Cm.</td>
<td>E</td>
<td>4</td>
<td>2003: LA</td>
<td>Dropped provision that reduced workers' comp benefits when injured worker was also receiving Social Security old-age benefits</td>
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<td></td>
<td></td>
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<td>2006: CT</td>
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<td></td>
<td></td>
<td></td>
<td>2009: UT</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2010: CO</td>
<td></td>
</tr>
<tr>
<td>Cm.</td>
<td>E</td>
<td>1</td>
<td>2008: MN</td>
<td>Extended time that temporarily disabled workers can receive benefits from 2 years to 2.5 years</td>
</tr>
<tr>
<td>Co.</td>
<td>E</td>
<td>2</td>
<td>2003: NM</td>
<td>Included significant brain injuries in qualifying for permanent total disability benefits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2008: NV</td>
<td></td>
</tr>
<tr>
<td>Co.</td>
<td>E</td>
<td>2</td>
<td>2003: NM</td>
<td>Created uninsured employers' fund to protect injured workers whose employers fail to obtain workers' comp insurance</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2007: RI</td>
<td></td>
</tr>
<tr>
<td>Co.</td>
<td>E</td>
<td>1</td>
<td>2013: MO</td>
<td>Clarified that occupational diseases, which were unintentionally eliminated in the 2005 law, are covered under workers' comp and are barred from lawsuits against employers</td>
</tr>
<tr>
<td>Co.</td>
<td>E</td>
<td>1</td>
<td>2014: MA</td>
<td>Required nannies, housekeepers and other domestic workers to be covered by workers' comp</td>
</tr>
<tr>
<td>Co.</td>
<td>E</td>
<td>1</td>
<td>2013: MN</td>
<td>Allowed compensation for work-related post-traumatic stress disorder that does not involve a physical injury, following a school shooting in which several teachers suffered from PTSD</td>
</tr>
<tr>
<td>Co.</td>
<td>E</td>
<td>1</td>
<td>2011: WA</td>
<td>Created a subsidy program for employers who return injured workers to a light duty position</td>
</tr>
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<td>Category</td>
<td>Access</td>
<td>No.</td>
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</tr>
<tr>
<td>MC</td>
<td>E</td>
<td>1</td>
<td>2014: CO</td>
<td>Increased the number of doctors from which injured workers can choose from 2 to 4, provided by their employer or insurer</td>
</tr>
<tr>
<td>MC</td>
<td>E</td>
<td>1</td>
<td>2014: IL</td>
<td>Restored some of the cuts in payments to doctors that were made in 2011</td>
</tr>
<tr>
<td>MC</td>
<td>E</td>
<td>1</td>
<td>2006: WI</td>
<td>Eliminated statute of limitations for workers who suffer amputations and other traumatic injuries likely requiring future medical care</td>
</tr>
<tr>
<td>MC</td>
<td>E</td>
<td>1</td>
<td>2003: CA</td>
<td>Required employers and insurers to have treatment requests reviewed against the guidelines, often by outside doctors, before denying a claim</td>
</tr>
<tr>
<td>NR</td>
<td>NC</td>
<td>5</td>
<td>KY, ME, MD, PA, VA</td>
<td>No major reforms.</td>
</tr>
<tr>
<td>A</td>
<td>R</td>
<td>2</td>
<td>2013: OK, TN</td>
<td>Replaced a court-based system with an administrative commission stacked with business and insurance interests to handle disputes</td>
</tr>
<tr>
<td>A</td>
<td>R</td>
<td>1</td>
<td>2013: NC</td>
<td>Stripped workers' comp judges (known as deputy commissioners) of their civil service protections, making them easier to dismiss</td>
</tr>
<tr>
<td>A</td>
<td>R</td>
<td>1</td>
<td>2013: KS</td>
<td>Created a nominating committee for workers' comp judges stacked with representatives from business groups</td>
</tr>
</tbody>
</table>
| A        | R      | 1   | 2011: NC         | Placed term limits on commissioners who oversee the workers' comp system, which is expected to make rulings more favorable for
<table>
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<th>Year: State (No.)</th>
<th>Description</th>
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<tbody>
<tr>
<td>Cm.</td>
<td>R</td>
<td>8</td>
<td>2007: SC 2010: RI 2011: IL, MT, ND 2013: KS, OK, SD</td>
<td>Reduced statutory benefits in some way</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>3</td>
<td>2003: FL (75), WV (70) 2011: IL (67)</td>
<td>Closed or limited special fund that provided additional benefits to workers with disabilities who are rendered more severely disabled by a new workplace injury</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>3</td>
<td>2004: CA 2005 ND 2011: NC</td>
<td>Capped permanent total disability benefits at age in parentheses</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>2</td>
<td>2003: FL (occupational disease and repetitive stress) 2005: AK</td>
<td>Limited temporarily disabled workers to 2 years of benefits regardless if they’ve recovered from their injury</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>3</td>
<td>2004: CA 2005 ND 2011: NC</td>
<td>Toughened causation standards necessary to prove claim with standard in parentheses</td>
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<tr>
<td>Cm.</td>
<td>R</td>
<td>2</td>
<td>2007</td>
<td>SC</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>1</td>
<td>2011</td>
<td>KS</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>1</td>
<td>2003</td>
<td>FL</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>1</td>
<td>2004</td>
<td>CA (partially restored 2012)</td>
</tr>
<tr>
<td>LS</td>
<td>R</td>
<td>1</td>
<td>2003</td>
<td>FL</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>1</td>
<td>2003</td>
<td>MT</td>
</tr>
<tr>
<td>Cm.</td>
<td>R</td>
<td>1</td>
<td>2012</td>
<td>WI</td>
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<td></td>
<td>Mental Stress 2005: AK (Legal Standard)</td>
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<td>7</td>
<td>Occupational Disease and Repetitive Stress&lt;br&gt;2005: MO (Legal Standard)</td>
<td></td>
</tr>
<tr>
<td>Co.</td>
<td>R</td>
<td>2</td>
<td>2010: OK&lt;br&gt;2013: GA</td>
<td>Allowed employers to cut off benefits if injured worker rejects a good-faith offer of a light-duty position at the same rate of pay</td>
</tr>
<tr>
<td>Co.</td>
<td>R</td>
<td>1</td>
<td>2011: OK</td>
<td>Extended lawsuit immunity to oil and gas companies that are not the immediate employer of an injured or deceased worker</td>
</tr>
<tr>
<td>Co.</td>
<td>R</td>
<td>1</td>
<td>2013: OK</td>
<td>Limited psychiatric claims to victims of violent crimes</td>
</tr>
<tr>
<td>Co.</td>
<td>R</td>
<td>1</td>
<td>2013: OK</td>
<td>Limits some occupational disease claims</td>
</tr>
<tr>
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</table>
| LS | R | 8 | 2003: WV  
2004: CA  
2005: OK  
2006: IN  
2011: KS  
2012: LA, MS  
2013: TN | Eliminated standard in workers' comp that gives the injured worker the benefit of the doubt |
| LS | R | 8 | 2004: CA, IA  
2005: MO  
2008: ND  
2011: KS, MI  
2012: MS  
2013: OK | Reduced insurers' and employers' liability when the work injury aggravates an existing condition caused by aging or prior injuries |
| LS | R | 1 | 2011: MI | Raised burden of proof for workers to show they cannot find a suitable job in order to receive wage-loss benefits |
| LS | R | 1 | 2005: MO | Reduced benefits by 25 to 50% if the injury was caused by a failure to follow the company's safety rules |
| LS | R | 1 | 2004: VT | Reduced statute of limitations for filing a claim |
| MC | R | 19 | 2003: CA  
2004: TN, VT  
2005: ID, IL, OK  
2006: SC  
2007: DE, MT, NE, NY  
2010: RI  
2011: IL, OK  
2012: CA  
2013: IN  
2014: AK, CT, DE | Adopted a medical fee schedule that caps payments to doctors and hospitals and for prescription drugs |
| MC | R | 12 | 2003: WV  
2004: CA  
2005: OK, TX  
2007: NY  
2011: IL, MI, MT, NC, OK, WA  
2012: MS | Limited workers' ability to choose their own doctors |
<table>
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<th>Year: State (No.)</th>
<th>Description</th>
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</thead>
</table>
| MC       | R      | 9   | 2003: CO  
2004: TN  
2005: OK, TX  
2007: MT  
2011: NC  
2012: CA  
2014: ND | Increased use of independent medical examiners (outside doctors) to resolve treatment disputes |
| MC       | R      | 4   | 2004: VT  
2005: OK  
2006: WI  
2007: NY | Established pharmacy fee schedule that limits charges for prescription drugs |
| MC       | R      | 4   | 2006: WI  
2007: DE, MT  
2010: NY | Established medical treatment guidelines |
| MC       | R      | 4   | 2003: CA  
2011: IL, KS  
2013: ND | Reduced or eliminated deference to worker's doctor as properly setting treatment |
| MC       | R      | 3   | 2006: OH  
2011: MT  
2013: GA | Limiting term of medical care |
| MC       | R      | 2   | 2005: IL  
2007: DE | Allowed employers and insurers to seek a second opinion on whether treatment is necessary and reasonable |
| MC       | R      | 2   | 2005: AK  
2011: MT | Froze fees for medical treatments |
<p>| MC       | R      | 1   | 2007: GA | Increased use of independent medical examiners (outside doctors) to include psychological exams |
| MC       | R      | 1   | 2003: CA | Capped chiropractor and physical therapy at 24 sessions for the life of the claim |
| MC       | R      | 1   | 2011: KS | Allowed employers and insurers to terminate medical benefits if no treatment has been received in 2 years |
| OO       | R      | 1   | 2013: OK | Allowed employers to opt out of the workers' comp system and create their own benefit plan, but still maintain their immunity from lawsuits |
| A        | U      | 1   | 2005: AK | Created administrative appeals commission |</p>
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<th>Year; State (No.)</th>
<th>Description</th>
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<tbody>
<tr>
<td>AF</td>
<td>U</td>
<td>4</td>
<td>2003: NM</td>
<td>Raised cap on attorney fees</td>
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<td>2004: RI</td>
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<td>2006 OH</td>
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<td>2013: MN</td>
<td></td>
</tr>
<tr>
<td>AF</td>
<td>U</td>
<td>3</td>
<td>2003: FL</td>
<td>Capped fees for workers'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2006: IN</td>
<td>attorneys</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2011: OK</td>
<td></td>
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