Adequacy of Earnings Replacement in Workers’ Compensation Programs

National Academy of Social Insurance
Study Panel on Benefit Adequacy
Adequacy of Earnings Replacement in Workers’ Compensation Programs
This page intentionally left blank
The National Academy of Social Insurance (NASI) is a non-profit, nonpartisan research and education organization made up of the nation’s leading experts in social insurance. Its mission is to conduct research and enhance public understanding of social insurance, to develop new leaders, and to provide a nonpartisan forum for the exchange of ideas on important issues in the field. Social insurance encompasses broad-based systems for insuring workers and their families against economic insecurity caused by loss of income from work, as well as protecting individuals against the cost of personal health care services. The Academy’s research covers Social Security, Medicare, workers’ compensation, unemployment insurance, and related public and private programs.

The National Academy of Social Insurance does not lobby or take positions on policy issues.

**Board of Directors**

- **Chair**
  - Henry J. Aaron
- **President**
  - Jerry Mashaw
- **Vice President**
  - Janice Gregory
- **Secretary**
  - Janet Shikles
- **Treasurer**
  - William B. Harman

- Robert Greenstein
- Richard A. Hobbie
- Charles A. Jones
- Mark Novitch
- Patricia M. Owens
- John L. Palmer
- Joseph F. Quinn
- Anna M. Rappaport
- Margaret Simms
- Andrew L. Stern
- Bruce C. Vladeck

**Founding Chair**

- Robert M. Ball

**Honorary Advisors**

- Bill Archer
- Nancy Kasselbaum Baker
- Lloyd Bentsen
- John H. Biggs
- Linda Chavez-Thompson
- Teresa Heinz
- Roger Joslin
- Beth Kobliner
- Robert J. Myers
- Paul H. O’Neill
- Franklin D. Raines
- Stanford G. Ross
- Alexander Trowbridge
# Contents

Preface xi

1 **Introduction** 1
   - Plan of the Presentation 3
   - A Brief History of Workers’ Compensation Programs 4
   - Attributes of a Workers’ Compensation Program 8
   - Conclusion 18

2 **Alternative Meanings of Benefit Adequacy** 19
   - What Losses Do Workers Incur as a Result of Occupational Injury or Disease? 23
   - Possible Approaches to Determining Adequacy 25
   - Treatment of Losses in Workers’ Compensation Programs 28
   - Conclusion 35

3 **Measuring Benefit Adequacy** 41
   - Operational Definition of Replacement Adequacy 41
   - Alternatives for Calculating Lost Earnings 48
   - Data Requirements 52
   - Alternate Measures of Adequacy 55
   - Appendix 3A: Overview of Methodological Issues 60
   - Appendix 3B: Statistical Basis of Loss Estimates 64

4 **Statutory Workers’ Compensation Benefits, 1972–1998** 67
   - TTD Maximum Benefit 68
   - Average Weekly TTD Benefits 72
   - Expected Statutory Benefits 75
   - Results 81
   - Comparisons with Model Act (Revised) Benefits 84
   - Conclusions 96
   - Appendix 4A: Model Act (Revised) Assumptions 99

5 **Wage Loss Studies** 101
   - Literature Review 101
   - Modern Wage Loss Studies 106
   - Conclusions 122
6 Summary and Conclusions

Findings 127
Conclusions 128
Appendix 6A: A Research Agenda 132

References 139

NASI Benefit Adequacy Study Panel 145
Index 147

About the Institute 159

Figures

3.1 A Conceptual Model of Temporary Injury-Related Losses 44
3.2 A Conceptual Model of Permanent Injury-Related Losses 45
3.3a Age-Earnings Profile of U.S. Women 50
3.3b Age-Earnings Profile of U.S. Men 50

4.1 TTD Maximum Relative to the Poverty Threshold, 1972–1998 70
4.2 TTD Maximum Relative to the Poverty Threshold, by State, 1998 71
4.3 Average Weekly TTD Benefits Relative to the Poverty Threshold, 1972–1998 74
4.4 TTD Weekly Average Relative to the Poverty Threshold, by State, 1998 75
4.5 Real Average Expected Statutory Benefits, 1972–1988 82
4.6 Expected Statutory Benefits, by State, 1998 83
4.7 Average Expected Statutory Benefits Relative to the Model Act, 1972–1998 85
4.8 Expected Benefits Relative to the Model Act (Revised), by State, 1998 87
4.9 Expected Statutory Benefits Relative to the Model Act (Revised), by Type of Benefit, 1972–1998 88
4.10 Simulated Average Replacement Rates, 1972–1998 91
4.11 Simulated Average Replacement Rates, by State, 1998 92
4.13 Simulated Replacement Rates, by Type of Benefit, 1972–1998 94

6.1 Relative Earnings of PPD Claimants as a Fraction of Comparison Workers

Tables

5.1 Cumulative Wage Losses and Replacement Rates for California PPD Claimants, 1991–1993

5.2 Earnings Loss and Replacement Rates, by Injury Category, for Washington Workers

5.3 Wisconsin Average Losses and Replacement Rates by Benefit Category, 1989–1990 Injuries

5.4 Ten-Year Earnings Losses and Replacement Rates for PPD Claimants

5.5 Earnings Loss and Replacement Rates for PPD Claimants, Self-Insured and Insured Firms, 1993 Injuries

5.6 Earnings Losses and Replacement Rates by Preinjury Earnings Percentile for PPD Claimants, Self-Insured, and Insured California Employers, 1993 Injuries

6.1 Ten-Year Earnings Losses and Replacement Rates for PPD Claimants
This page intentionally left blank
Preface

This volume is the result of several years of collaboration by a dedicated group of volunteers, who are listed at the back of this book. The NASI Study Panel on Benefit Adequacy was originally convened in the spring of 1998 under the chairmanship of Allan Hunt. After reviewing and discussing the available research and developing a tentative report outline, members volunteered to draft specific chapters. We elected not to identify authorship, since all material has been extensively reworked through subsequent Study Panel deliberations and redrafts. Each Study Panel member contributed to this process in his or her own way. However, the “heavy lifting” was done by Les Boden, John Burton, Allan Hunt, Virginia Reno, Emily Spieler, and Terry Thomason. We also thank Virginia Reno, Dan Mont, Cecili Thompson Williams, Sue Berkebile, and Nelly Ganesan for invaluable administrative support. NASI reviewers included Monroe Berkowitz, Jerry Mashaw, and Ed Welch. Our collaborative process was interrupted by the shocking illness and death of our colleague Terry Thomason in 2002. We dedicate this volume to his memory.
1
Introduction

This study was sponsored by the National Academy of Social Insurance (NASI) under the auspices of its Workers’ Compensation Steering Committee. NASI regularly convenes steering committees and study panels charged with conducting research, issuing findings, and, in some cases, making recommendations based on their analyses. Members of these groups are selected for their recognized expertise and with due consideration for the balance of disciplines and perspectives appropriate to the project. Findings and recommendations of the groups are the responsibility of the individual group members, not NASI, its members, or its supporters. In 1998, NASI convened a study panel of its Workers’ Compensation Steering Committee (see p. 145 for a list of panel members) to review the earnings replacement benefits under the various state and federal workers’ compensation programs for workers injured or made ill by their jobs.

The Benefit Adequacy Study Panel’s task was to examine the extent to which workers’ compensation wage replacement benefits paid to injured workers replace their lost wages, and to assess the adequacy of wage replacement. Replacement of lost wages is acknowledged as one of the primary objectives of these programs, but it has not been studied extensively until the last few years. Of course, we recognize that benefit adequacy is not the only important issue in workers’ compensation policy. Moreover, some states provide certain benefits for reasons other than wage replacement. The fact that this report focuses exclusively on benefit adequacy reflects the overall approach the NASI Workers’ Compensation Steering Committee has taken to reviewing the various policy issues in workers’ compensation programs.

We also understand that a variety of policy and behavioral factors may influence the extent to which lost earnings are replaced by a workers’ compensation program. These include the benefit structure specified by statute, the extent to which systems encourage reduction in the level of losses, and the extent to which procedural and operational characteristics affect workers’ recoveries. Examples of these include the cost of obtaining benefits, compromise and release agreements, and
procedures for terminating benefits. These factors, and many more, interact in complex and sometimes unpredictable ways with wage replacement benefits in a workers’ compensation system. In particular, we are not asserting that adequacy of benefits alone would ensure a high-quality workers’ compensation system.

Two recent developments have made this inquiry timely: first, a series of changes in workers’ compensation statutes through the decade of the 1990s, generally designed to take costs out of the system; and second, a group of empirical studies that promise to provide better information than we have had before about actual replacement of wage losses by workers’ compensation systems. Critics of the statutory changes in the 1990s believe that these changes may have significantly undermined the adequacy of workers’ compensation benefits (Spieler and Burton 1998). They argue that changes in workers’ compensation statutes in the period from 1992 to 1998 reduced the amount and duration of cash benefits, changed the rules on compensability to make recovery more difficult, altered the way disability is assessed, and made other changes that made it more difficult to qualify for benefits.

Supporters of these statutory changes do not agree that they resulted in significant benefit reductions. They argue that in most states benefits increased, and even in the few states that reduced benefits for some types of claims, they often increased them for others. Moreover, supporters argue that the benefit reductions usually were made to bring benefits in line with the norms in other states. Proponents also argue that these changes placed greater emphasis on prevention, increased reliance on objective determinations of disability and compensability, created new tools for preventing and resolving disputes, and eliminated mandates, such as for vocational rehabilitation, that were not cost effective.

Interest in the issue of benefit adequacy was also stimulated by a series of “wage loss” studies conducted in California, Wisconsin, Washington, New Mexico, and Oregon in the last five years. The data and methods used in these studies constitute a significant breakthrough on the comparison group problem. Using electronic administrative records of earnings, it is possible to develop more adequate comparison groups to answer the counterfactual question, “What would injured workers have earned in the absence of their injuries?” In other words, it is now possible to more accurately estimate the lost earnings that workers’ compensation benefits are designed to replace.
The NASI Benefit Adequacy Study Panel reviewed the published research literature on benefit adequacy and then formulated an approach to this difficult and contentious issue. During a series of meetings held over a five-year period, the study panel determined that it would be useful to produce a report reviewing what was known, and what was not known, about benefit adequacy in workers’ compensation programs. Members of the panel volunteered to prepare draft chapters, which were reviewed and discussed by the entire panel. The draft report was then peer reviewed according to the procedures of the NASI Board of Directors. This book represents the result of that deliberative process.

PLAN OF THE PRESENTATION

The remainder of Chapter 1 consists of a brief overview of workers’ compensation programs. Chapter 2 explores alternative meanings of benefit adequacy. What are the conceptual issues involved in assessing benefit adequacy? Do other social models exist for evaluating benefit adequacy? How do the unique features of state workers’ compensation programs complicate things when considering benefit adequacy?

Chapter 3 addresses the methodological issues involved in determining benefit adequacy. What data are available to measure benefit adequacy? Why is it so difficult to estimate what injured workers’ earnings would have been in the absence of injury? How do the methodological choices influence the outcome of the analysis?

Chapter 4 traces the statutory benefit structure among the state workers’ compensation programs over the period 1972–1998 to assess the “intent” of legislators in providing earnings replacement benefits. It compares benefit levels for standard situations among the programs, and also uses the workers’ compensation “Model Act, Revised” promulgated by the Council of State Governments in 1974 as a benchmark. The Model Act was designed to provide guidance to state legislatures on good legislative practice in workers’ compensation. It incorporated the recommendations of the National Commission on State Workmen’s Compensation Laws (NCSWCL 1972).

Chapter 5 describes the recent wage loss results from California, Wisconsin, Washington, New Mexico, and Oregon. These studies are based upon the pre- and postinjury earnings of actual workers. They
employ various techniques to derive a comparison group of noninjured workers that is used to estimate the earnings that the injured workers would have received in the absence of injury. These empirical methods are found to produce the most convincing assessment yet of benefit adequacy in workers’ compensation programs.

Finally, Chapter 6 reviews the findings of the study and provides the panel’s conclusions on benefit adequacy in workers’ compensation programs. An appendix to the chapter presents thoughts on the need for further research.

A BRIEF HISTORY OF WORKERS’ COMPENSATION PROGRAMS

Workers’ compensation programs provide wage replacement, rehabilitation, and medical benefits to workers with work-related injuries and occupational diseases. They also pay survivor benefits to dependents of workers who die as a result of such injuries. In 2001, benefit payments for workers’ compensation totaled $49.4 billion, or a little more than $500 per covered worker (Williams, Reno, and Burton 2003).

Origins of Workers’ Compensation

Workers’ compensation laws did not appear in the United States until the early part of the twentieth century. Prior to the enactment of these laws, the only avenue available for injured workers seeking compensation for a work-related injury was to bring a tort liability lawsuit against their employers. Common law principles established that employers had a duty to not injure their workers, to warn them of risks, and to provide a reasonably safe environment. In practice, securing common law redress for injuries was very difficult. The worker had to establish that the employer was negligent, and even a negligent employer could use three types of defenses that usually precluded a finding of liability:

1) **Fellow servant rule.** This held that an employer was not liable for an injury caused by the negligence or carelessness of fellow employees.
2) **Contributory negligence.** This held that the employer had no responsibility to the injured worker if the negligence of the employee contributed to the cause of the accident, even if her contribution was minor.

3) **Assumption of risk.** Where the employee is considered to implicitly accept all obvious and customary risks of her occupation. Wages were considered to take the increased risk of injury into account.

To the extent that these defenses were persuasive in a court of law, common law remedies were received by relatively few workers.

As the number of accidents rose in the latter part of the nineteenth century, legislative efforts were made to limit employer common law defenses. Such statutes, however, still clung to the common law theory that employers were only responsible for their direct negligence. These “employer liability” laws generally served three purposes (Somers and Somers 1954, p. 21):

1) making it illegal for employers and workers to sign contracts relieving the employer of liability for accidents as a condition of employment (27 states by 1908),

2) extending the right of suit in death cases (41 states by 1904), and,

3) abrogating or modifying common law defenses, usually by eliminating the fellow servant doctrine. These laws generally applied to railroad workers, miners, and other occupations deemed particularly hazardous.

However, these statutes did not appease workers, who continued to fight for expanded responsibility of employers. Employers, too, were dissatisfied with these laws. They faced large legal expenses and a good deal of uncertainty, both financially and in the stability of society at large. Numerous commissions were formed to investigate these issues and generally reached the following conclusions about the employer liability system as it existed at that time (Somers and Somers 1954; Hobbs 1939):

1) The system was antiquated, as it was designed in the preindustrial era, when both the organization of production and the types of employment were different.
2) The benefits provided were inadequate, and there was uncertainty as to whether a worker was eligible to receive them.
3) The system was wasteful and had high costs to employers.
4) There were many delays.
5) Rewards were inconsistent.
6) There was a lack of prevention, although insurance companies at the time were introducing some preventive measures for certain employers.
7) The lack of a good system was creating a public burden.

In searching for a solution to these deficiencies, policymakers looked to Europe for an alternative system (Larson and Larson 2000). As early as the 1830s, Germany had been moving toward a social insurance model, but it came to its fruition under Bismarck in the late 1880s and was adopted in Britain about a decade later. The basic idea of this model was that employers and employees would jointly pay for insurance that would provide benefits for people with disabilities, regardless of the cause.

Unlike in Germany, however, the United States adopted this model only for workplace accidents. So employers alone contributed to insurance costs, but only for injuries resulting from accidents in the workplace. Eventually, workers’ compensation coverage was extended to disability due to occupational diseases as well.

Workers’ compensation benefits are nontaxable. In the early years of the twentieth century, this was not much of an issue (the federal income tax dates only to 1912), but with federal income taxes, state income taxes, and payroll taxes easily taking one-third of gross earnings today, this is a very significant factor. Most workers’ compensation systems today pay wage replacement benefits based on gross wages, although a minority have switched to benefits based on net earnings or after-tax wages in the past decade.

Another important feature of this system was that workers’ compensation programs became the “exclusive remedy” for work-related injury and illness. That is, as a tradeoff for receiving no-fault workers’ compensation benefits, workers were no longer allowed to sue their employers for damages resulting from negligence in the workplace. By accepting this “historic compromise,” workers were guaranteed benefits for work-related injuries and illnesses (putting aside, of course, disputes
about what constituted a work-related condition). Employers had their potential liability limited to the benefits provided under workers’ compensation programs, regardless of their culpability for the injury to the worker. Moreover, their exposure to the costs of illnesses and injuries was much more predictable under the workers’ compensation plan.

By 1920, all but eight states had a workers’ compensation law. The 48th state, Mississippi, enacted its law in 1948. Over the years, through legal interpretation and legislative enactment, workers’ compensation statutes have been expanded to include near universal coverage and inclusion of many conditions which were not originally thought to be employment related (including stress, mental disabilities, repetitive strains, and occupational diseases).

National Commission on State Workmen’s Compensation Laws

In the United States, there is a heavier reliance on private benefit programs than in other developed countries. Most social insurance programs that do exist are federal, and federal law encourages state adoption of unemployment insurance programs. This is not the case for workers’ compensation programs, in part because they began prior to the 1930s, when the U.S. Supreme Court reinterpreted the interstate commerce clause of the Constitution to allow federal regulation of private sector employers (*NLRB v. Jones & Laughlin Steel Corp.*, 301 U.S. 1 (1937)). In 1970, Congress established the National Commission on State Workmen’s Compensation Laws to “undertake a comprehensive study and evaluation of State workmen’s compensation laws in order to determine if such laws provide[d] an adequate, prompt, and equitable system of compensation” (29 USC 676(a)(1)). In addition, the commission was directed to determine if there was a role for federal legislation to improve these programs.

In 1972, the commission made a series of “essential” recommendations, including:

1) Workers’ compensation should be compulsory rather than elective.
2) Employers should not be exempt because of the number of employees or because workers are agricultural employees, government employees, or casual or domestic workers.