

BLINDED BY MORAL HAZARD

COMMENT

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I. INTRODUCTION

Alison Morantz's article *Economic Incentives in Workers' Compensation: A Holistic, International Perspective*¹ represents a valuable contribution to our understanding of the workers' compensation system. We believe her contribution to be particularly insightful because of her ability to highlight that a proper assessment of the system can only be performed if it also accounts for labor market institutions and regulations, safety and health norms, and the wider network of social insurance in addition to market behavior.² She reminds us of the need to continue to study the problem of benefit adequacy and of cost shifting toward other social insurance

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1. Alison Morantz et al., *Economic Incentives in Workers' Compensation: A Holistic, International Perspective*, 69 RUTGERS U. L. REV. 1015 (2017).

2. *Id.* at 1019–24.

programs.³ Finally, one of her main contributions is her attempt to assess the functioning of the U.S. workers' compensation system in light of other countries' experiences.⁴

In the next section, we focus in more detail on one of the topics that Morantz discusses in her paper: worker moral hazard. Moral hazard has been a major workers' compensation topic studied by economists. This is a term economists use to refer to behavior that comes about when people do not bear the full cost of outcomes of their behavior. As Tom Baker put it, moral hazard is "the tendency for insurance against loss to reduce incentives to prevent or minimize the cost of loss."⁵ Insurance is a prime example of something that reduces the cost of individuals' actions. For example, a doctor may prescribe an expensive medicine to treat an illness. People whose insurance covers almost all the cost will be more likely to buy and take the medicine than people lacking prescription drug insurance.

We describe the limitations of this concept, both in theory and in practice. We also discuss an important aspect of workers' compensation typically overlooked by economists who study it: workers' compensation as insurance for workers against the financial consequences of occupational injuries and illnesses. This aspect of workers' compensation should be obvious. After all, we are discussing workers' compensation *insurance*. Still, it is largely overlooked by economists who focus on worker moral hazard, skewing their concerns toward limiting both workers' access to benefits and reducing benefit levels.

In the third section, we provide some thoughts about using international comparisons to broaden our perspectives on U.S. workers' compensation systems.

II. HAVE ECONOMISTS LED US ASTRAY?

A. *The Moral Hazard Blinders*

Economists are frequently driven by a search for efficient solutions.⁶ As a consequence, when they study workers' compensation

3. *Id.* at 1061-66.

4. *Id.* at 1031-52.

5. Tom Baker, *On the Genealogy of Moral Hazard*, 75 *TEX. L. REV.* 237, 239 (1996).

6. To paraphrase E.J. Mishan, an economy is efficient when no other way of producing and distributing goods would make some people better off without making others worse off. EZRA J. MISHAN, *THE COSTS OF ECONOMIC GROWTH* 45 (1967). This is typically referred to as Pareto efficiency. *Id.* Efficiency implies both production and consumption efficiency. *Id.*

systems, two issues consume much of their energy: incentives to provide the efficient level of safety and efficient benefit utilization. In its simplest version, the basic rule of the “invisible hand” that produces efficient market outcomes is that people and firms should bear the costs of their actions or, at the very least, that they should act as if they bore the cost of their actions. This is where moral hazard comes in.

Moral hazard can affect any actor in the workers’ compensation system. Yet economists have focused their attention on worker moral hazard.⁷ They have rarely paid attention to incentives of employers, insurers, physicians, or lawyers to engage in inefficient behavior. A strength of Morantz’s article is that it describes incentives that can generate inefficient behavior not only for workers, but for employers, insurers, and physicians as well.⁸ For example, experience rating and self-insurance have been found to be related to a reduction in reported injuries.⁹ Economists have traditionally assumed that this is because they increase employers’ incentives to create a safer work environment.¹⁰ However, experience rating and self-insurance also provide incentives to increase employers’ efforts to challenge claims or to find other methods to hinder claim filing.¹¹ Increasing claim denial rates by insurers can also inhibit workers filing claims for workplace injuries.¹²

7. See *infra* notes 14 and 32 for examples of economists that have focused their attention on worker moral hazard.

8. Morantz et al., *supra* note 1, at 1057–61. Morantz mentions, but does not describe, lawyers’ incentives for inefficient behavior. We note that both contingent fee and hourly pay of lawyers raise important incentive issues. See A. Mitchell Polinsky & Daniel L. Rubinfeld, *Aligning the Interests of Lawyers and Clients*, 5 AM. L. & ECON. REV. 165 (2003); Emily A. Spieler, *Perpetuating Risk? Workers’ Compensation and the Persistence of Occupational Injuries*, 31 HOUS. L. REV. 119, 241–42 (1994); Terry Thomason, *Are Attorneys Paid What They’re Worth? Contingent Fees and the Settlement Process*, 20 J. LEGAL STUD. 187, 221–22 (1991).

9. See generally Abay Asfaw & Regina Pana-Cryan, *The Impact of Self-Insuring for Workers’ Compensation on the Incidence Rates of Worker Injury and Illness*, 51 J. OCCUPATIONAL & ENVTL. MED. 1466 (2009); Terry Thomason & Silvana Pozzebon, *Determinants of Firm Workplace Health and Safety and Claims Management Practices*, 55 INDUS. & LAB. REL. REV. 286 (2002).

10. See generally Pascale Lengagne, *Experience Rating and Work-Related Health and Safety*, 37 J. LAB. RES. 69 (2016).

11. ANNETTE BERNHARDT ET AL., *BROKEN LAWS, UNPROTECTED WORKERS: VIOLATIONS OF EMPLOYMENT AND LABOR LAWS IN AMERICA’S CITIES* 27–28 (2009); Jeff Biddle & Karen Roberts, *Claiming Behavior in Workers’ Compensation*, 70 J. RISK & INS. 759, 766 (2003); James Frederick & Nancy Lessin, *Blame the Worker: The Rise of Behavioral-Based Safety Programs*, MULTINATIONAL MONITOR, Nov. 2000, at 10, 11–12; Douglas E. Hyatt & Boris Kralj, *The Impact of Workers’ Compensation Experience Rating on Employer Appeals Activity*, 34 INDUS. REL. 95, 96 (1995); Liz Mansfield et al., *A Critical Review of Literature on Experience Rating in Workers’ Compensation Systems*, 10 POLY & PRAC. HEALTH & SAFETY

Despite the fact that moral hazard can affect all the parties to workers' compensation, concerns about worker moral hazard have had a predominant impact on both legislation and employer policies in this area.¹³ For this reason, we take a close look at whether the standard economist's argument about worker moral hazard stands up to scrutiny. Without getting too technical, here is how that argument goes:¹⁴

Workers' wages plus benefits provide the incentive for them to provide productive work. Without insurance, the level of wages leading to efficient production would equal the value of workers' (marginal) productivity. When they are not working, they have zero productivity, but workers' compensation provides positive income through insurance benefits. There is, therefore, a wedge between their (zero) productivity and their work-related income.

Because of this, economists have worried that workers who are insured against the financial impact of an injury may be less cautious on the job.¹⁵ In addition, injured workers may file more claims, stay off work longer, or use more medical care as benefits increase. Moreover, uninjured workers might nevertheless file claims. This potentially leads to less efficient outcomes, including loss of production, adjustment costs for the firm, and deterioration of workers' skills.

Concern about potential inefficient outcomes caused by workers' compensation benefits implies that these benefits alter the tradeoffs that individuals face when they make choices between the disutility of work and the enjoyment of leisure time at home. But the time off after an injury is often physically and psychologically painful and, as such,

3, 12 (2012); Emily A. Spieler & John F. Burton, Jr., *The Lack of Correspondence Between Work-Related Disability and Receipt of Workers' Compensation Benefits*, 55 AM. J. INDUS. MED. 487, 497-98 (2012) [hereinafter Spieler & Burton, *Lack of Correspondence*]; Thomason & Pozzebon, *supra* note 9, at 287.

12. Jeff Biddle, *Do High Claim-Denial Rates Discourage Claiming? Evidence from Workers Compensation Insurance*, 68 J. RISK & INS. 631, 631-32 (2001).

13. See Emily A. Spieler & John F. Burton, Jr., *Compensation for Disabled Workers: Workers' Compensation*, in NEW APPROACHES TO DISABILITY IN THE WORK PLACE (1998) [hereinafter Spieler & Burton, *Compensation for Disabled Workers*]; Thomason & Pozzebon, *supra* note 9.

14. See, e.g., James R. Chelius, *The Influence of Workers' Compensation on Safety Incentives*, 35 INDUS. & LAB. REL. REV. 235 (1982); Bruce D. Meyer et al., *Workers' Compensation and Injury Duration: Evidence from a Natural Experiment*, 85 AM. ECON. REV. 322 (1995); John W. Ruser, *Workers' Compensation Insurance, Experience-Rating, and Occupational Injuries*, 16 RAND J. ECON. 487 (1985).

15. See Richard J. Butler & John D. Worrall, *Claims Reporting and Risk Bearing Moral Hazard in Workers' Compensation*, 58 J. RISK & INS. 191 (1991).

does not qualify as leisure time.¹⁶ It is healing time, and therefore time that economic theory in other contexts recognizes as a productive investment in human capital.¹⁷ Moreover, because of injury-related disability, time off work may have little value as leisure; indeed, the disability may interfere with normal household activities, increasing the burden on other family members.¹⁸

We note that concern about workers' compensation leading to additional risk-taking assumes that workers have knowledge,¹⁹ control of the risk they face on the job, and feel comfortable expressing their concerns about risk with no fear of jeopardizing their current and future employment status.²⁰ It also assumes that workers have knowledge and clear understanding of their benefits under the workers' compensation system before getting injured. Both assumptions are debatable. Furthermore, even if workers wish to file more claims and stay off work longer when benefits increase, they may not be able to do so. Increasing benefits also affects the incentives of employers and insurers to monitor claiming and time off work, to reject claims, and to cut off benefits.²¹ Employers have other tools as well. If an employer believes that a worker has filed a specious claim or has taken too much time off work, that worker may be subject to

16. Lee Strunin & Leslie I. Boden, *Family Consequences of Chronic Back Pain*, 58 SOC. SCI. & MED. 1385, 1387–88 (2004).

17. Michael Grossman, *On the Concept of Health Capital and the Demand for Health*, 80 J. POL. ECON. 223, 224 (1972).

18. Allen W. Imershein et al., *The Workers' Compensation System as a Quality of Life Problem for Workers' Compensation Claimants*, 5 ADVANCES MED. SOC. 181, 191 (1994); Strunin & Boden, *supra* note 16, at 1388, 1391.

19. Lenore S. Azaroff et al., *Occupational Injury and Illness Surveillance: Conceptual Filters Explain Underreporting*, 92 AM. J. PUB. HEALTH 1421, 1423 (2002); Ken D. Rosenman et al., *Why Most Workers with Occupational Repetitive Trauma Do Not File for Workers' Compensation*, 42 J. OCCUPATIONAL & ENVTL. MED. 25 (2000); Spieler & Burton, *Lack of Correspondence*, *supra* note 11, at 496–97.

20. Azaroff et al., *supra* note 19, at 1423; Z. Joyce Fan et al., *Underreporting of Work-Related Injury or Illness to Workers' Compensation: Individual and Industry Factors*, 48 J. OCCUPATIONAL & ENVTL. MED. 914, 914, 921 (2006); Monica Galizzi et al., *Injured Workers' Underreporting in the Health Care Industry: An Analysis Using Quantitative, Qualitative, and Observational Data*, 49 INDUS. REL. 22, 37–38 (2010) [hereinafter Galizzi et al., *Injured Workers' Underreporting*]; Glenn Pransky et al., *Under-Reporting of Work-Related Disorders in the Workplace: A Case Study and Review of the Literature*, 42 ERGONOMICS 171, 176 (1999); Spieler & Burton, *Lack of Correspondence*, *supra* note 11, at 497.

21. See generally Hyatt & Kralj, *supra* note 11; Ellen MacEachen et al., *Workers' Compensation Experience-Rating Rules and the Danger to Workers' Safety in the Temporary Work Agency Sector*, 10 POLY & PRAC. HEALTH & SAFETY 77 (2012); Mansfield et al., *supra* note 11; Thomason & Pozzebon, *supra* note 9.

retaliation in many forms, including termination.²² In addition, employers and insurers may find it beneficial to discourage claim filing in general if this benefits their bottom line.²³

Despite all these caveats, in ordinary discourse, the subtext of the phrase “moral hazard” is that this behavior is bad. Ideally, the term should simply describe certain situations where individual behaviors and choices are changed because of price distortion (e.g., people are no longer responsible for the full price of a doctor visit or of a car repair). Such behavior is not immoral by itself, but is a simple response to changed incentives.

In practice, this value-free interpretation is not the norm. In workers’ compensation, increased claim filing or duration of time off from work in response to higher benefits is often labeled as “fraud and malingering.”²⁴ Worker moral hazard thus becomes a justification for reducing benefits and erecting barriers to access them.²⁵ To quote Tom Baker again:

By “proving” that helping people has harmful consequences, the economics of moral hazard justify the abandonment of legal rules and social policies that try to help the less fortunate; and, by providing a “scientific” basis for the abandonment of legal rules and social policies, the economics of moral hazard legitimate that abandonment as the result of a search for truth, not an exercise of power.²⁶

Along with arguments about states’ losing employers to their lower-cost neighbors, beliefs about worker moral hazard have supported more than

22. BERNHARDT ET AL., *supra* note 11, at 3; Azaroff et al., *supra* note 19, at 1426; Spieler, *supra* note 8, at 227–31; *see also* NAT’L ECON. & SOC. RIGHTS INITIATIVE, INJURED, ILL AND SILENCED: SYSTEMIC RETALIATION AND COERCION BY EMPLOYERS AGAINST INJURED WORKERS (2015), <https://www.nesri.org/sites/default/files/WC%20retaliation%20policy%20brief%204%2010%2015%20FINAL.pdf>.

23. Biddle, *supra* note 12, at 635.

24. *See* Lisa Cullen, *The Myth of Workers’ Compensation Fraud*, PBS, <http://www.pbs.org/wgbh/pages/frontline/shows/workplace/etc/fraud.html> (last visited Nov. 3, 2017); *Workers Compensation Scams*, COAL AGAINST INS. FRAUD, <http://www.insurancefraud.org/scam-alerts-workers-compensation.htm> (last visited Nov. 3, 2017); *see also* Leslie I. Boden & Emily A. Spieler, *Workers’ Compensation*, in *THE OXFORD HANDBOOK OF U.S. SOCIAL POLICY* 451 (Daniel Béland et al. eds., 2014).

25. Allard E. Dembe & Leslie I. Boden, *Moral Hazard: A Question of Morality?*, 10 *NEW SOLUTIONS* 257, 266, 268 (2000).

26. Baker, *supra* note 5, at 240.

twenty-five years of legislative changes designed to make it more difficult for workers to successfully file for workers' compensation benefits.²⁷

Professor Morantz implicitly acknowledges the value burden that this phrase carries and, as a consequence uses terminology that is both more descriptive and less value-laden. To discuss changes in risk taking related to expected benefits, she follows Guo and Burton and uses "true injury effect" instead of "risk-bearing moral hazard."²⁸ Similarly, to discuss changes in claiming related to expected benefits, she uses "reporting effect" instead of "claims reporting moral hazard."²⁹ Finally, to discuss temporary disability duration, she uses the "duration effect" instead of "claims duration moral hazard."³⁰ These are excellent choices to avoid the pejorative implications of "moral hazard." In this arena, we think that economists should more fully explore the motivations behind injured workers' responses to compensation benefits in the context of the work environment and their implications. This has been done by medical anthropologists and others talking to workers,³¹ and it needs to be considered by economists as well.

B. Recent Evidence About Reporting and Duration Effects

Economists have been conducting studies of the reporting and duration effects in workers' compensation since the 1980s. This discussion is not the place for a full literature review, but we recommend Butler, Gardner, and Kleinman's chapter on this

27. Leslie I. Boden & John W. Ruser, *Workers' Compensation "Reforms," Choice of Medical Care Provider, and Reported Workplace Injuries*, 85 REV. ECON. & STAT. 293, 293 (2003); Spieler & Burton, *Lack of Correspondence*, *supra* note 11, at 498; Spieler & Burton, *Compensation for Disabled Workers*, *supra* note 13, at 206.

28. Morantz at al., *supra* note 1, at 1026 (quoting Xuguang (Steve) Guo & John F. Burton, Jr., *Workers' Compensation: Recent Developments in Moral Hazard and Benefit Payments*, 63 INDUS. & LAB. REL. REV. 340, 341 (2010)).

29. *Id.* (quoting Guo & Burton, *supra* note 28, at 341).

30. *Id.* at 1027 (quoting Guo & Burton, *supra* note 28, at 341).

31. See, e.g., DOROTHY NELKIN & MICHAEL S. BROWN, *WORKERS AT RISK: VOICES FROM THE WORKPLACE* ix, x (1984); Imershein et al., *supra* note 18, at 188 (providing interviews assessing the quality of life reported by claimants in workers' compensation claims); Katherine Lippel, *Therapeutic and Anti-Therapeutic Consequences of Workers' Compensation*, 22 INT'L. J.L. & PSYCHIATRY 521, 543-44 (1999); Lee Strunin & Leslie I. Boden, *The Workers' Compensation System: Worker Friend or Foe?*, 45 AM. J. INDUS. MED. 338, 338 (2004); Valerie Tarasuk & Joan M. Eakin, *The Problem of Legitimacy in the Experience of Work-Related Back Injury*, 5 QUALITATIVE HEALTH RES. 204, 207 (1995) (providing a research process that used open-ended questions to elicit participants' perceptions of their experience).

subject.³² Instead, we briefly summarize the issues and the range of estimates of these two effects.³³

First, we note again that there are offsetting incentives when benefits rise. Higher benefits imply greater incentives for workers to file (the reporting effect), but they also imply greater incentives for employers to discourage filing and resist paying. Similarly, they imply greater incentives for workers to stay off work longer (the duration effect) and for employers to attempt to get workers to return to work more quickly. The net effect is unknown in principle but can be estimated in practice.

The vast majority of studies of reporting and duration effects were conducted in the 1980s and 1990s using data from twenty-five or more years ago.³⁴ These studies generally found that the net reporting and duration effects were positive.³⁵ That is, as benefits rose, both claim frequency and duration increased.³⁶ Estimates of the net reporting effect of a 10% increase in benefits varied widely, from less than 1% to more than 10%.³⁷ Similarly, estimates of the net duration effect of a 10% increase in benefits varied over a similar range.³⁸

However, more recent studies have estimated claims reporting effects of close to zero.³⁹ This could reflect changes over time because of more careful employer and insurer screening of claims, more sophisticated employer programs to reduce claims,⁴⁰ workers' increased

32. Richard J. Butler et al., *Workers' Compensation: Occupational Injury Insurance's Influence on the Workplace*, in HANDBOOK OF INSURANCE 449, 452 (Georges Dionne ed., 2d ed. 2013) (ebook).

33. Moral hazard is also associated with a third effect: the injury effect. *Id.* As benefits increase, workers may be tempted to dismiss the consequences of injuries and put themselves more at risk. *Id.* However, such hazard is based on the debatable assumptions that workers are fully aware of the risk they face, and that higher risk tolerance is related to more occupational injuries. The testing of such assumptions and of their implications has been quite problematic. See Monica Galizzi & Tommaso Tempesti, *Workers' Risk Tolerance and Occupational Injuries*, 35 RISK ANALYSIS 1, 1 (2015); see also Morantz et al., *supra* note 1, at 1025–26.

34. Butler et al., *supra* note 32, at 452 (discussing reviews of studies on claims data and injury rates from 1985 and 1992).

35. *Id.*

36. *Id.*

37. *Id.*

38. *Id.*

39. Erin Todd Bronchetti & Melissa McInerney, *Revisiting Incentive Effects in Workers' Compensation: Do Higher Benefits Really Induce More Claims?*, 65 INDUS. & LAB. REL. REV. 286, 304, 313 (2012); Guo & Burton, *supra* note 28, at 341.

40. David M. DeJoy, *Behavior Change Versus Culture Change: Divergent Approaches to Managing Workplace Safety*, 43 SAFETY SCI. 105, 106 (2005); Frederick & Lessin, *supra*

concerns about the potential stigma associated with claiming,⁴¹ or changes in workers' compensation laws that have given employers and insurers more tools to fight claims. Indeed the 1990s were characterized by a tightening of benefit eligibility in many states.⁴² Increasing numbers of insurance policies were characterized by large deductibles, giving employers stronger incentives to challenge claims.⁴³ The analysis of aggregated state-level data over that period has shown that, once the new, stricter compensability rules and the stricter benefit allowances are taken into account, the effect of expected benefits on claims frequency and on benefits payments becomes insignificant or is dramatically reduced.⁴⁴ This suggests that the findings of the earlier economics literature about workers' responses to higher benefits may have been biased upward.

Instead, employers' actions may deserve more attention than economists gave in the past. Studies conducted with richer firm and worker survey data further reinforce this argument. On one side, firms' incentives play a large role. On the other side, workers may differ along many dimensions unrelated to moral hazard behavior but still related to filing claims and time off work. Richer data about individual work histories and new statistical methods that account for differences in workers' unobservable characteristics have further shown that the effect of benefits on claim reporting and duration may have been overestimated.⁴⁵ Instead, workers' pre-injury socio-economic

note 11, at 11; Thomas R. Krause & Robert J. McCorquodale, *Transitioning Away From Safety Incentive Programs*, 41 PROF. SAFETY, Mar. 1996, at 32, 36; Thomas R. Krause et al., *Long-Term Evaluation of a Behavior-Based Method for Improving Safety Performance: A Meta-Analysis of 73 Interrupted Time-Series Replications*, 32 SAFETY SCI. 1, 2 (1999); Alison D. Morantz & Alexandre Mas, *Does Post-Accident Drug Testing Reduce Injuries? Evidence from a Large Retail Chain*, 10 AM. L. & ECON. REV. 246, 247 (2008).

41. Tarasuk & Eakin, *supra* note 31. See Bonnie Kirsh et al., *The Nature and Impact of Stigma Towards Injured Workers*, 22 J. OCCUPATIONAL REHABILITATION 143, 144–45 (2012); Janice Reid et al., *Pilgrimage of Pain: The Illness Experiences of Women with Repetition Strain Injury and the Search for Credibility*, 32 SOC. SCI. & MED. 601, 605–06 (1991). See generally Galizzi et al., *Injured Workers' Underreporting*, *supra* note 20.

42. JOHN F. BURTON, JR. & EMILY SPIELER, NAT'L ACAD. OF SOC. INS., WORKERS' COMPENSATION AND OLDER WORKERS (2001), https://www.nasi.org/usr_doc/risks_brief_3.pdf; Boden & Ruser, *supra* note 27; Spieler & Burton, *Lack of Correspondence*, *supra* note 11.

43. Guo & Burton, *supra* note 28, at 340.

44. *Id.* at 351.

45. Richard J. Butler et al., *The Effects of Worker Heterogeneity on Duration Dependence: Low-Back Claims in Workers Compensation*, 83 REV. ECON. & STAT. 708, 715 (2001); Michele Campolieti, *Workers' Compensation Benefits and Claim Duration: Some Canadian Evidence*, 6 APPLIED ECON. LETTERS 513, 514, 517 (1999).

characteristics may play a large role.⁴⁶ We have learned that continuous work experience—a potential proxy of perceived job security—is an important variable affecting time off work after injury.⁴⁷ The same is true for workers' pre-injury wages:⁴⁸ workers' compensation reciprocity increases with earnings but at a decreasing rate;⁴⁹ very low wage workers are characterized by very few claims—possibly because of their lack of knowledge of their compensation rights or because of the lower probability that they will “fight back” given their greater fear of retaliation and likelihood of intimidation⁵⁰—and very high wage workers are also found to be less likely to receive workers' compensation.⁵¹ This could indicate that they are more likely to receive accommodations by employers, that they are more likely to have alternative sources of insurance, or that they are more careful to avoid injuries and claims because their replacement rate would be capped by their state maximum benefits.⁵² However, this last hypothesis is not supported by the finding that even in different institutional settings where workers receive full compensation while off work, higher wage employees return to work faster.⁵³

One relevant empirical question has been clearly resolved: virtually every study of the take-up of workers' compensation benefits has found that only a fraction of eligible injured workers receives them.⁵⁴

46. See generally Monica Galizzi, *On the Recurrence of Occupational Injuries and Workers' Compensation Claims*, 22 HEALTH ECON. 582 (2013).

47. Butler et al., *supra* note 45, at 708, 714–15; Tarasuk & Eakin, *supra* note 31, at 213.

48. Bronchetti & McInerney, *supra* note 39, at 300–01.

49. *Id.* at 302.

50. BERNHARDT ET AL., *supra* note 11, at 25; Bronchetti & McInerney, *supra* note 39, at 306; David Card & Brian P. McCall, *When to Start a Fight and When to Fight Back: Liability Disputes in the Workers' Compensation System*, 27 J. LAB. ECON. 149, 162–65, 173–74 (2009).

51. Bronchetti & McInerney, *supra* note 39, at 304.

52. See Bronchetti & McInerney, *supra* note 39, at 300, 304 (discussing alternative sources of insurance); Butler et al., *supra* note 45, at 712 (discussing benefit caps); Thomason & Pozzebon, *supra* note 9, at 288–89 (discussing health and safety accommodations at high-wage workplaces, as well as benefit caps).

53. Monica Galizzi et al., *Injured Workers and Their Return to Work: Beyond Individual Disability and Economic Incentives*, 4 EVIDENCE-BASED HRM 2, 2 (2016).

54. For a survey of studies and reasons for this, see Azaroff et al., *supra* note 19, at 1424, 1426. For more recent studies, see Leslie I. Boden & Al Ozonoff, *Capture-Recapture Estimates of Nonfatal Workplace Injuries and Illnesses*, 18 ANNALS EPIDEMIOLOGY 500, 500, 503–05 (2008); Letitia K. Davis et al., *Use of Multiple Data Sources for Surveillance of Work-Related Amputations in Massachusetts, Comparison with Official Estimates and Implications for National Surveillance*, 57 AM. J. INDUS. MED. 1120, 1121, 1127–28 (2014); Lauren Joe et al., *Using Multiple Data Sets for Public Health Tracking of Work-Related*

C. *Insurance and Efficiency: Removing the Blinders*

Keeping on our economists' hats, we would like to point out a little-appreciated fact: production efficiency⁵⁵ is only one dimension of efficiency. The other dimension is consumption efficiency. This refers not only to individuals' choosing the goods and services that make them best off given prices and individuals' incomes, but also means maximizing their satisfaction by choosing between current and future consumption and avoiding the risk of large declines in consumption. However, economists have infrequently focused on this consumption effect when discussing workers' compensation.

Workers' compensation insurance cushions the financial impact of an injury on workers and their families. People in general are risk-averse. We do not like facing a large drop in income, which can lead to curtailing our consumption by cutting back on leisure activities, having less money for food and clothing, and so on. We can try to avoid drops in future consumption through insurance. With insurance, we reduce current consumption by paying premiums in order to cushion the effect on future consumption of a future drop in income. Economists call this "consumption smoothing."⁵⁶ It provides the efficiency value of insurance. People buy insurance because it helps them maintain their standard of living in the face of large, unexpected losses.

When workers' compensation pays for medical care and provides cash benefits, it allows injured workers to have less of a drop in consumption. So even if a reporting or duration effect causes a loss of production efficiency, it may be counterbalanced by a gain in consumption efficiency because workers' compensation insurance reduces the risk of large declines in consumption caused by an occupational injury or illness.

Of course, people can also self-insure—accumulate savings for a rainy day. This is what we do when we save for retirement. This may work well for predictable losses, but it may be inadequate to cushion

Injuries and Illnesses in California, 57 AM. J. INDUS. MED. 1110, 1114–16 (2014); Kenneth D. Rosenman et al., *How Much Work-Related Injury and Illness is Missed by the Current National Surveillance System?*, 48 J. OCCUPATIONAL & ENVTL. MED. 357, 361–62 (2006); Spieler & Burton, *Lack of Correspondence*, *supra* note 11, at 487; Sara E. Wuellner & David K. Bonauto, *Exploring the Relationship Between Employer Recordkeeping and Underreporting in the BLS Survey of Occupational Injuries and Illnesses*, 57 AM. J. INDUS. MED. 1133, 1139–42.

55. Production efficiency is the use of labor, capital, and natural resources to produce a product at minimum cost. See generally MISHAN, *supra* note 6.

56. See generally Jonathan Morduch, *Income Smoothing and Consumption Smoothing*, 9 J. ECON. PERSPECTIVES 103 (1995).

large, unpredictable losses. In fact, many people, particularly those with modest incomes, have little in the way of savings. Specifically, many injured workers have minimal or no savings.⁵⁷ In theory, somebody who suffers a large, unpredictable loss could also go to a lender to get funds to tide them over—to smooth their consumption. However, as we all know, capital markets do not work well for people with modest incomes and little in the way of savings. In fact, low income and minority families are known to face greater difficulties in getting affordable loans approved, possibly because of financial market discrimination.⁵⁸ This is likely to be a problem for injured workers given the relationship between occupational injuries and socio-economic status.⁵⁹

We build on this context and on an important insight provided by some economists,⁶⁰ suggesting a different interpretation of injured workers' behavior. There are at least two reasons that increasing workers' compensation benefits might lead to employees' taking longer to return to work. The first is the *duration effect* that we discussed above: workers prefer staying off work to coming back; and if the cost of staying off work declines, they will take longer to return to work.⁶¹ The second is the *liquidity effect*. In this case, with low benefits, minimal savings, and no (or very expensive) access to credit, the injured worker is virtually starved back to work. She might prefer to stay home and recuperate. But she cannot buy food and cover utility bills, credit card payments, and car loan payments. As Chetty put it when discussing unemployment insurance, "the liquidity effect is a socially beneficial

57. Monica Galizzi & Jay L. Zagorsky, *How Do On-the-Job Injuries and Illnesses Impact Wealth?*, 16 LAB. ECON. 26, 31, 34–35 (2009); Erin Todd Bronchetti, *Workers' Compensation and Consumption Smoothing*, 96 J. PUB. ECON. 495, 496 (2012).

58. CHRISTIAN E. WELLER, CTR. AM. PROGRESS, ACCESS DENIED: LOW-INCOME AND MINORITY FAMILIES FACE MORE CREDIT CONSTRAINTS AND HIGHER BORROWING COSTS 1–2, 8 (2007). *But see* David G. Blanchflower et al., *Discrimination in the Small-Business Credit Market*, 85 REV. ECON. STAT. 930, 932, 934, 942 (2003).

59. Galizzi, *supra* note 46, at 592.

60. David Card et al., *Cash-on-Hand and Competing Models of Intertemporal Behavior: New Evidence from the Labor Market*, 122 Q.J. ECON. 1511, 1512 (2007); Raj Chetty, *A General Formula for the Optimal Level of Social Insurance*, 90 J. PUB. ECON. 1879, 1880 (2006); Raj Chetty, *Moral Hazard Versus Liquidity and Optimal Unemployment Insurance*, 116 J. POL. ECON. 173, 175 (2008) [hereinafter Chetty, *Moral Hazard Versus Liquidity and Optimal Unemployment Insurance*]; Thomas F. Crossley & Hamish Low, *Borrowing Constraints, the Cost of Precautionary Saving and Unemployment Insurance*, 18 INT'L TAX & PUB. FIN. 658, 658–59 (2011); Stephen P. Zeldes, *Consumption and Liquidity Constraints: An Empirical Investigation*, 97 J. POL. ECON. 305, 306 (1989).

61. *See supra* part II.B. (discussing duration effect).

response to the correction of the credit and insurance market failures.”⁶² In other words, even to economists, higher benefits can be a good thing when they prevent people from being starved back to work. This is doubly true in workers’ compensation: if workers face pressure to return to work before full recovery, they may jeopardize their immediate recovery, but also their longer-term productivity and performance.⁶³

We now turn to the existing empirical evidence to highlight what has been observed about the liquidity effect.

D. *The Liquidity Effect*

The issue of the relationship between consumption and efficient benefit levels has been studied most often in the context of unemployment insurance. Unemployment insurance and workers’ compensation both are mandated programs that provide consumption-smoothing benefits.⁶⁴ Unemployment and workplace injury have obvious similarities and differences. Both programs affect a substantial number of workers with relatively low earnings and savings.⁶⁵ In both, cash benefits smooth income, and therefore consumption, for workers and their families. In the case of unemployed workers, Gruber found that their consumption would fall by 22% if they did not receive benefits.⁶⁶ Other studies have also shown that a decrease of 10% in the replacement rate would lead to a drop in consumption ranging between 1.3% and 2% for households lacking financial wealth.⁶⁷ Even workers with positive wealth experience a remarkable decline in assets after job loss.⁶⁸ These results are very similar to what has been found among injured workers.

Injured workers tend to be individuals with lower wealth compared to those who have not been injured.⁶⁹ Wage loss caused by an

62. Chetty, *Moral Hazard Versus Liquidity and Optimal Unemployment Insurance*, *supra* note 60, at 175.

63. Ellen MacEachen et al., *A Deliberation on ‘Hurt Versus Harm’ Logic in Early-Return-to-Work Policy*, 5 POL’Y & PRAC. HEALTH & SAFETY 75, 86–87 (2007).

64. For further discussion, see Jonathan Gruber, *The Consumption Smoothing Benefits of Unemployment Insurance*, 87 AM. ECON. REV. 192 (1997). *See also* Bronchetti, *supra* note 57 (2012).

65. *See generally* Crossley & Low, *supra* note 60; Galizzi & Zagorsky, *supra* note 57.

66. Gruber, *supra* note 64, at 203.

67. Hans G. Bloemen & Elena G. F. Stancaelli, *Financial Wealth, Consumption Smoothing and Income Shocks Arising from Job Loss*, 72 ECONOMICA 431, 443 (2005).

68. *See generally* Jonathan Gruber, *The Wealth of the Unemployed*, 55 INDUS. & LAB. REL. REV. 79 (2001).

69. Galizzi & Zagorsky, *supra* note 57, at 31–32.

occupational injury leads workers to lose wealth, including physical assets such as their homes and cars; to incur debt; and to dramatically reduce their spending on food and other items.⁷⁰ In a recent article, Bronchetti examined the amount of consumption smoothing generated by workers' compensation benefits in a cohort of older injured workers in the Health and Retirement Study.⁷¹ She estimated that if benefits were very low, the drop in household consumption would be over 30%.⁷² This is clearly a large and painful cut in household expenses. Moreover, a 10% increase in benefits would offset the drop in consumption by 3%–5%.⁷³ These results suggest that, for both unemployed and injured workers, social insurance benefits are extremely important in smoothing consumption. For all these workers, an increase in time off work related to an increase in cash benefits will only partially reflect the duration effect. The liquidity effect is likely to be as important—if not more so.

For unemployment insurance, the liquidity effect assists households in meeting their basic needs and, therefore, allows workers to spend more time searching for new jobs so that they can find jobs that are a better fit to their skills and experience.⁷⁴ Some injured workers lose their jobs, so workers' compensation cash benefits can have the same impact on them. In addition, the liquidity effect in workers' compensation allows workers to spend more time healing so that they are more productive when they return to work. There is no parallel in unemployment insurance.

We can summarize the similarities of the two systems by noting that both systems assist workers who would otherwise face greater

70. See James P. Keogh et al., *The Impact of Occupational Injury on Injured Worker and Family: Outcomes of Upper Extremity Cumulative Trauma Disorders in Maryland Workers*, 38 AM. J. INDUS. MED. 498, 503 (2000); Timothy F. Morse et al., *The Economic and Social Consequences of Work-Related Musculoskeletal Disorders: The Connecticut Upper-Extremity Surveillance Project (CUSP)*, 4 INT'L J. OCCUPATIONAL ENVTL. HEALTH 209, 214 (1998); Galizzi & Zagorsky, *supra* note 57, at 34.

71. Bronchetti, *supra* note 57, at 495.

72. *Id.* at 506. The median amount of liquid assets in this group was twenty thousand dollars. *Id.* at 503 tbl.4. In her analysis, the author found that workers below the median do not have adequate liquid assets or access to borrowing to smooth their consumption. *Id.* at 506. The author found a 7.9% drop in consumption for injured workers with assets above the median, but a 54.8% drop in consumption for those with below-median assets. *Id.* at 503 tbl.4. Bronchetti also noted that this was a sample of workers over the age of fifty. *Id.* at 506. As such, they were likely to have greater assets than younger injured workers, who were even more likely to face liquidity constraints. *Id.*

73. *Id.*

74. See Arash Nekoei & Andrea Weber, *Does Extending Unemployment Benefits Improve Job Quality?*, 107 AM. ECON. REV. 527 (2017).

income losses and therefore a more dramatic drop in consumption. Both systems allow liquidity-constrained workers to make better use of their human capital—skills, experience, and education—by providing a better match between their human capital and the job they acquire or the job to which they return.⁷⁵ In addition, workers' compensation benefits allow them to recover from their injuries. In sum, we think that the similarities are close enough that the liquidity effects in unemployment insurance and workers' compensation are likely to be comparable in magnitude.

In the past decade, three articles have provided the best evidence to date of the importance of the liquidity effect in the unemployment program.⁷⁶ In a thorough analysis of the incentive effects of U.S. unemployment insurance, Chetty concludes that 60% of the change in duration with respect to benefits is caused by the liquidity effect,⁷⁷ indicating that at most 40% is caused by the duration moral hazard effect. Similarly, an article by Card, Chetty, and Weber using Austrian data estimates that the liquidity effect accounts for 70% of the change in duration with respect to benefits.⁷⁸ More recently, Landais, using U.S. unemployment insurance data, estimated the liquidity effect to be 88% of the duration effect.⁷⁹

A recent article by Low and Pistaferri covers both incentive and liquidity effects in the Social Security Disability Insurance ("SSDI") system.⁸⁰ This system is closer in one way to workers' compensation than is unemployment insurance: acceptance is based on disability.⁸¹ On the other hand, it covers both work-related and non-work-related disabilities.⁸² Like economic studies of workers' compensation, much of the SSDI economics research has focused on the reporting effect, not on

75. In addition, unlike unemployment insurance, workers' compensation pays medical benefits to injured and ill workers. Without these benefits, workers could expect much larger declines in injured workers' consumption, so medical benefits can also have an important liquidity effect.

76. Chetty, *Moral Hazard Versus Liquidity and Optimal Unemployment Insurance*, *supra* note 60, at 176.

77. *Id.* at 221.

78. David Card et al., *supra* note 60, at 1514.

79. Camille Landais, *Assessing the Welfare Effects of Unemployment Benefits Using the Regression Kink Design*, 7 *AM. ECON.: J. ECON. POL'Y* 243, 275 (2015).

80. See Hamish Low & Luigi Pistaferri, *Disability Insurance and the Dynamics of the Incentive Insurance Trade-Off*, 105 *AM. ECON. REV.* 2986, 2987, 3017–18 (2015).

81. SOC. SEC. ADMIN., *DISABILITY BENEFITS* (2017), <https://www.ssa.gov/pubs/EN-05-10029.pdf>.

82. *Id.*

the liquidity effect.⁸³ This has the effect of implying that efficiency will be enhanced and welfare improved if benefits are reduced and claim acceptance is more stringent. The Low and Pistaferri study takes a life-cycle approach and therefore accounts for the fact that individuals may differ in their ability to self-insure against future disabilities through personal savings.⁸⁴ Accounting for both the reporting and liquidity effects, it concludes that social welfare would increase if SSDI payments were more generous and claim acceptance were more lenient.⁸⁵

We cannot know whether the workers' compensation liquidity effect will be similar to the unemployment insurance or the SSDI liquidity effect. Still, we think that the similarities are close enough to indicate the importance of considering the liquidity effect in the case of injured workers, not just assuming that increases in duration reflect only workers' choices between work and leisure. This is an important area for future research.

III. DIRECTIONS FOR FUTURE ELABORATION

A. The "Labor Market" Pillar

Morantz's analysis is built on a framework that describes the workers' compensation system as one of four pillars that shape the behavior of injured workers and their firms: the labor market pillar, the inspectorate pillar, the workers' compensation pillar, and the social insurance pillar.⁸⁶ This is a valuable approach for a full understanding of the system. However, we think this approach could be further improved by enriching the discussion about the features of the labor market pillar. This pillar can capture both the mechanisms and incentives described by traditional neoclassical economic analysis and the institutional changes and economic forces that shape the functioning of the labor market. Injured workers' experiences and

83. John Bound, *The Health and Earnings of Rejected Disability Insurance Applicants*, 79 AM. ECON. REV. 482, 499–500 (1989); Eric French & Jae Song, *The Effect of Disability Insurance Receipt on Labor Supply*, 6 AM. ECON. J. 291, 291–92 (2014); Nicole Maestas et al., *Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt*, 103 AM. ECON. REV. 1797, 1826–27 (2013); see also Till Von Wachter et al., *Trends in Employment and Earnings of Allowed and Rejected Applicants to the Social Security Disability Insurance Program*, 101 AM. ECON. REV. 3308, 3315 (2011).

84. Low & Pistaferri, *supra* note 80, at 2987.

85. *Id.* at 3026–27.

86. Morantz et al., *supra* note 1, at 1020.

behaviors need to be understood in light of the cyclical and structural changes that characterize the market for labor.

Phases of expansion or decline in the overall economic activity will affect the pressures experienced by workers and firms. For example, expansions and contractions may accelerate production or increase the risk of layoffs. In addition, the introduction of new technologies and the globalization of markets can lead to more long-term structural changes in the production process.⁸⁷ This can affect the relative income and bargaining power of both skilled and unskilled workers, and therefore, their behavior in terms of health, safety, reporting, and claiming. Similarly, the increased reliance on “fissured” work arrangements⁸⁸—particularly those that separate the control of working conditions from the employment relationship—may result in increased health and safety risks, poorer reporting, lack of coverage, and shifting injury costs away from employers and insurers and toward workers’, households, and non-workers’ compensation social insurance systems.⁸⁹ The ambiguous status of employees classified as independent contractors is a good example of current challenges faced by workers’ compensation systems.⁹⁰ Cyclical, structural, and institutional changes all affect the relationship between workers and employers and, thereby, injury outcomes. Many of the features of the labor market have only a tenuous relationship with the free market assumptions on which neoclassical economics is built.

B. *Lessons from International Comparisons*

Morantz’s paper encourages us not to take “the basic features of the U.S. system for granted.”⁹¹ She calls attention to several differences between the U.S. experience and that of comparator countries.⁹² For example, she describes that in several other nations insurance is

87. See generally David H. Autor et al., *Untangling Trade and Technology: Evidence from Local Labour Markets*, 125 *ECON. J.* 621 (2015).

88. See DAVID WEIL, *THE FISSURED WORKPLACE: WHY WORK BECAME SO BAD FOR SO MANY AND WHAT CAN BE DONE TO IMPROVE IT* 7, 10 (2014).

89. See LESLIE I. BODEN ET AL., *THE CHANGING STRUCTURE OF WORK: IMPLICATIONS FOR WORKPLACE HEALTH AND SAFETY IN THE US* 3, 4 (2016), http://www.dol.gov/asp/evaluation/completed-studies/Future_of_work_the_implications_for_workplace_health_and_safety.pdf; *Contingent Workers*, U.S. DEPT LAB., <https://www.dol.gov/dol/aboutdol/history/reich/reports/dunlop/section5.htm> (discussing information of contingent worker relationship) (last visited Nov. 3, 2017).

90. BODEN ET AL., *supra* note 89, at 15.

91. Morantz et al., *supra* note 1, at 1019.

92. *Id.* at 1031–52.

provided by an exclusive public fund and insurance premiums are designed to promote prevention.⁹³ They “reward efforts, not results.”⁹⁴ She stresses that we can learn from other countries’ systems that rely on occupational safety and health committees to elicit workers’ feedback about workplace injuries both before and *after* the injury.⁹⁵ These are examples of a more general point she makes about learning from the different laws, policies, practices, and risk and safety information that exist in other countries.

Indeed, the features and differences she highlights are thought provoking and worth further study and reflection. However, we want to emphasize that international comparisons in the context of workers’ compensation can be particularly challenging. First of all, many comparator countries’ labor markets and health and safety systems exist in institutional settings that differ markedly from their U.S. counterparts. These include national or provincial public workers’ compensation insurance, single-payer health systems, and union contracts covering a whole industrial sector or national labor market.⁹⁶ This creates environments that may be very difficult to compare with our own. Workers’ compensation benefits can be affected both by national rules—which are published and therefore easily accessible to foreign researchers—and also supplementary collective bargaining agreements and benefits that may vary by firm size or sector.⁹⁷ These involve information that may be much more challenging to obtain, but that shape the experience of workers and firms in comparator countries. Similarly, as Morantz mentions, the U.S. labor market is characterized by great flexibility thanks to the “employment-at-will” doctrine.⁹⁸ Comparator countries often have very different historical and political traditions that have led to much stronger labor protection norms and regulations. Such differences may suggest that U.S. workers are more likely to experience stigma or retaliation following an injury or a claim.⁹⁹ This will have consequences on

93. *Id.* at 1041–42.

94. *Id.* at 1042.

95. *Id.* at 103–34.

96. C. ARTHUR WILLIAMS, AN INTERNATIONAL COMPARISON OF WORKERS’ COMPENSATION § 11 (1991).

97. Galizzi et al., *supra* note 53.

98. Morantz et al., *supra* note 1, at 1054–55.

99. Almost all states prohibit retaliation for filing a workers’ compensation claim. See Emily A. Spieler, *(Re)assessing the Grand Bargain: Compensation for Work Injuries in the U.S., 1900–2017*, 69 RUTGERS U. L. REV 891, 970 (2017). However, workers can still take a substantial risk when filing. Written Exchange with Michael Duff, Professor at Univ. of Wyo. Coll. of Law, among others. (Jan. 21, 2017).

the incentives they will face in terms of safety behavior, reporting, and time off work. We believe this to be a major difference between the injury and workers' compensation experience of employees in the United States and in other countries. It is an area that deserves attention both in terms of future comparative international research and of policy making.

IV. CONCLUSION

Economic analysis typically focuses on the role of incentives in shaping efficient outcomes. We suggest that, even within this narrow range, the focus on production efficiency at the expense of consumption efficiency can be misleading in assessing workers' compensation benefits. A change in workers' compensation benefits may induce not only a change in work incentives, but may also induce a change in behavior through attempts to smooth consumption.

Indeed, production efficiency is not the only, or even the most important, goal of social insurance. To state the obvious, insurance is a central goal. In the case of workers' compensation, this primarily involves cushioning workers against the financial effects of occupational injuries and illnesses. This corresponds to two of the five objectives of workers' compensation enumerated by the 1972 National Commission.¹⁰⁰ They are:

1. Broad coverage of employees and of work-related injuries and diseases; and
2. Substantial protection against interruption of income.¹⁰¹

To date, economists have focused on the safety, reporting, and duration effects, which are potential consequences of achieving these two goals. Recent research has shown these effects to be weaker than previously thought. We suggest that the liquidity effect should be a key priority in the economic analysis of the functioning of workers' compensation systems. This will support a more balanced examination of their efficiency.

100. NAT'L COMM'N ON STATE WORKMEN'S COMP. LAWS, THE REPORT OF THE NATIONAL COMMISSION ON STATE WORKMEN'S COMPENSATION LAWS 15 (1972).

101. The other three objectives are: provision of sufficient medical care and rehabilitation resources, encouragement of safety, and an effective system for delivery of the benefits and services. *Id.*

We have chosen to discuss only a few aspects of Alison Morantz's excellent paper. Professor Morantz has taken a much more comprehensive view than we have presented in this commentary. Among other things, she has analyzed the incentives of other actors in the workers' compensation system, including employers, insurers, and physicians.¹⁰² She has discussed barriers to filing claims and the generally inadequate benefits received by injured workers who file for, and receive, benefits.¹⁰³ She also presents a nuanced picture of the impact of experience rating, taking into account that experience rating provides an incentive for employers to suppress workers' compensation claims.¹⁰⁴ She highlights how the workers' compensation system shifts a large fraction of injury and illness costs onto workers and their families and onto other U.S. public insurance programs.¹⁰⁵ She does all this while maintaining an international perspective. For these and other aspects of her paper, we applaud her.

102. Morantz et al., *supra* note 1, at 1055–60.

103. *Id.* at 1060–65.

104. *Id.* at 1039–40.

105. *Id.* at 1065–66.