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Foundations and Trends® in Microeconomics

Published, sold and distributed by:
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PO Box 1024
Hanover, MA 02339
USA
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www.nowpublishers.com
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Outside North America:
now Publishers Inc.
PO Box 179
2600 AD Delft
The Netherlands
Tel. +31-6-51115274

The preferred citation for this publication is R. J. Butler and H. H. Gardner, Moral Hazard and Benefits Consumption Capital in Program Overlap: The Case of Workers' Compensation, Foundation and Trends® in Microeconomics, vol 5, no 8, pp 477–528, 2009

ISBN: 978-1-60198-428-9

Foundations and Trends® in Microeconomics

Volume 5 Issue 8, 2009

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Foundations and Trends® in Microeconomics, 2009, Volume 5, 8 issues. ISSN paper version 1547-9846. ISSN online version 1547-9854. Also available as a combined paper and online subscription.

Foundations and Trends® in
Microeconomics
Vol. 5, No. 8 (2009) 477–528

DOI: 10.1561/0700000037

Moral Hazard and Benefits Consumption Capital in Program Overlap: The Case of Workers' Compensation

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Abstract

In this paper we review and extend the analysis of moral hazard response in two relatively unexamined empirical directions: (1) how insurance changes in one program affects employee participation in other programs at a point in time (*inter-program moral hazard),* and (2) how the consumption of program benefits now tends to affect employees behavior over time (*benefits consumption capital*). We develop a formal model of inter-program moral hazard based on workers' compensation with programs overlapping it (including sick leave, health insurance, and unemployment insurance), and review evidence concerning this overlap response. We also provide new evidence on benefits consumption capital concerning workers' compensation using data from one large private employer in the US.

Contents

1

Introduction

"Moral hazard" occurs when people change behavior as insurance coverage changes. For example, employees tend to take more days off work when sick leave benefits are expanded (made more generous) at their firms. A lot of economic research considers the effects of such *intra-program* moral hazard responses, where the change in benefits coverage affects the use of benefits in that program: as expected workers' compensation (WC) benefits increase, moral hazard response occurs if workers file more claims or tend to stay out longer on a claim. Disability/health insurance changes (including the institution of such programs where they did not exist before) generate moral hazard potential because such insurance expansion raises the benefits of participating directly, but shifts the cost of program participation to the entire risk pool of the insured. Ruser and Butler (2010) find, for example, increases in WC benefits affect workplace safety, increase reported claims, and increase the claim duration of any given type of injury.

The intra-program moral hazard research is extensive. As other examples, researchers have examined how specific changes in health care coverage affects the concomitant use of the health system, how a specific increase in sick leave benefits changes sick leave absence claims, how unemployment insurance benefits affects unemployment insurance claims, etc. In this paper we review and extend the analysis of moral hazard response in two other empirical directions: (1) how insurance changes in one program affects employee participation in other programs at a point in time (*inter-program moral hazard*), and (2) how the consumption of program benefits now tends to affect employees behavior over time (*benefits consumption capital*).

Moral hazard across programs: inter-program moral hazard. While a lot has been written about intra-program moral hazard, moral hazard affects likely operate *between* programs as well. Changes in insurance coverage in one program, say a change in compensable health conditions covered by WC, may affect use of other program benefits, such as the consumption of medical care expenditures, sick leave benefits, or employer-provided short- and long-term disability benefits. We call this *inter-program moral hazard* to distinguish it from the *intra*-program moral hazard normally analyzed.

Though inter-program responses are potentially large, they have received considerably less attention in the theoretical and empirical labor economics, disability, and health literature — primarily because research has focused on particular programs rather than take an integrated look at individual employees and all the insurance/benefit programs they use (Gardner, 2006; Gardner et al., 1999). Instead of focusing on how the moral hazard effects of higher WC benefits increases WC claim frequency (an intra-program moral hazard), moral hazard associated with inter-program overlap would typically consider the following questions:

How do changes in health and disability health care insurance design affect the incentives of firms and workers to classify health conditions as work related, and hence, compensable under WC?

How do changes in sick leave policy affect the cost-sharing effects of waiting periods for WC and employer-provided disability, and hence, the costs of these programs?

How do changes in compensable state WC claims (say, mental stress ceases to be compensable as a workplace injury under state law) affect the propensity to file health plan and disability claims (including social security), or mental health counseling under a health care insurance plan?

Analysis of how employee health plan, health care and disability benefits program overlap helps explain why cost sharing in one program (say, waiting periods and partial wage replacement in WC) may not be effective in reducing moral hazard when another program compensates for the first program's cost-sharing features. For example, paid sick leave frequency replaces wages lost during the waiting period for WC, or tops off WC benefits to 100% wage replacement, mitigating cost sharing in WC that is aimed at limiting moral hazard.

Moral hazard over time: benefits consumption capital. Program participation increases knowledge about the scope of benefits and what it takes to qualify for benefits (lowering the cost of future participation). It also increases knowledge about how to best to present a given health condition as program qualifying and knowledge of relatively more sympathetic health service providers (doctors, etc.) or administrative personnel (company or third party). In an extended period of benefits use while away from work, work-related human capital may decrease even as benefits consumption capital, including perhaps a greater sense of entitlement, increases. Hence, program participation now may lower the real and psychic costs of program participation in the future, increasing the likelihood of future participation. This is a sort of inter-temporal moral hazard relating the program participation per se rather than just a change in the scope of the insurance coverage. The insurance margin that induces benefits consumption capital is the extensive margin: that WC exists now and one participates in it, which participation lowers future costs of participation and hence affects subsequent non-work spells.

We examine both neglected margins of moral hazard response in the rest of this paper: after reviewing the theoretical and empirical effects of inter-program moral hazard, we analyze the effects of benefits consumption capital. We will focus principally in this article on WC and programs that overlap with potential WC coverage to keep institutional issues to a manageable level. This will not only include employer-provided sick-leave/health care insurance, short- and long-term disability insurance, and Federal benefits under the social security disability program, but also Federal benefits paid under unemployment insurance.

References

Becker, G. S. and K. Murphy (1988), 'A theory of rational addiction'. *The Journal of Political Economy* **96**(4), 675–700.

Bolduc, D., B. Fortin, F. Labrecque, and P. Lanoie (2002), 'WC, moral hazard, and the composition of workplace injuries'. *Journal of Human Resources* **37**(3), 623–652.

Boone, J. and J. C. van Ours (2006), 'Are recessions good for workplace safety?'. *Journal of Health Economics* **25**, 1069–1093.

Brook, R., K. Rajagopalan, N. Kleinman, J. Smeeding, T. Brizee, and H. Gardner (2006), 'Incurring greater health care costs: Risk stratification of employees with bipolar disorder'. *The Primary Care Companion to the Journal of Clinical Psychiatry* **8**(1), 17–24.

Butler, R. J. (1994), 'The economic determinants of worker compensation trends'. *Journal of Risk and Insurance* pp. 383–401.

Butler, R. J. (1999a), *The Economics of Social Insurance and Employee Benefits*. Boston: Kluwer Academic Publishers.

Butler, R. J. (1999b), 'WC concepts and economics'. In: T. G. Mayer, R. J. Gatchel, and P. B. Potain (eds.): *Occupational Musculosketetal Disorders: Function, Outcomes and Evidence*. Philadelphia: Lippincott-Raven.

Butler, R. J., D. L. Durbin, and N. M. Helvacian (1996), 'Increasing claims for soft tissues injuries in WC: Cost shifting and moral hazard'. *Journal of Risk and Uncertainty* **13**(1), 73–87.

Butler, R. J., B. D. Gardner, and H. H. Gardner (1997a), 'WC costs when maximum benefits change'. *Journal of Risk and Uncertainty* **15**, 259–269.

Butler, R. J., B. D. Gardner, and H. H. Gardner (1998), 'More than incentive response: Moral hazard lowers productivity'. *Journal of Risk and Insurance* **65**(4), 671–688.

Butler, R. J., R. Hartwig, and H. Gardner (1997b), 'HMOs, moral hazard and cost shifting in WC'. *Journal of Health Economics* **16**(2), 191–206.

Butler, R. J., W. G. Johnson, and M. L. Baldwin (1995), 'Managing work disability: Why first return to work is not a measure of success'. *Industrial and Labor Relations Review* **48**(3), 452–469.

Butler, R. J. and Y.-S. Park (2000), 'Impairment ratings for back claims are poor predictors of wage loss'. *Journal of Occupational Rehabilitation* **10**(2), 153–169.

Butler, R. J. and Y.-S. Park (2005), *Safety Practices, Firm Culture, and Workplace Injuries*. Kalmazoo: Upjohn Institute for Employment Research.

Butler, R. J. and J. D. Worrall (1983), 'Workers Compensation: Benefit and injury claims rates in the seventies'. *Review of Economics and Statistics* **65**(4), 580–589.

Butler, R. J. and J. D. Worrall (1991), 'Claims reporting and risk bearing moral hazard in WC'. *The Journal of Risk and Insurance* **58**(2), 191–204.

Bycio, P. (1992), 'Job performance and absenteeism: A review and meta-analysis'. *Human Relations* **45**(2), 193–220.

Cartwright, W., T. Hu, and L. Huang (1992), 'Impact of varying medigap insurance coverage on the use of medical services of the elderly'. *Applied Economics* **24**, 529–539.

Chulius, A., E. Eppig, M. Hogan, D. Waldo, and R. Arnett (1993), 'Health insurance and the elderly: Data from MCBS'. *Health Care Financing Review* **14**, 163–181.

Dionne, G. and P. St-Michel (1991), 'WC and moral hazard'. *The Review of Economics and Statistics* **73**(2), 236–244.

Ducatman, A. M. (1986), 'WC cost shifting: A unique concern of providers and purchasers of prepaid health care'. *Journal of Occupational Medicine* **28**(11).

Fortin, B. and P. Lanoie (1992), 'Substitution between unemployment insurance and WC: An analysis applied to the risk of workplace accidents'. *Journal of Public Economics* **49**(3), 287–312.

Fortin, B., P. Lanoie, and C. LaPorte (1999), 'Is workers' compensation a substitute for unemployment insurance?'. *Journal of Risk and Uncertainty* **18**(3), 165–188.

Gardner, H. H. (2006), 'Walking the talk: Bridging the gap to human capital management'. http://www.hcmsgroup.com/hcmsgroup/Publications/WhitePapers/Walking%20the%20Talk.pdf.

Gardner, H. H., B. D. Gardner, and R. J. Butler (1999), 'Benefits management beyond the adding machine: Using integrated, worker specific analysis'. *Benefits Quarterly* **15**(3), 30–39.

Gardner, H. H., N. Kleinman, and R. J. Butler (2000a), 'Waiting periods and health-related absenteeism: The need for program integration'. *Benefits Quarterly* **16**(3), 47–53.

Gardner, H. H., N. Kleinman, and R. J. Butler (2000b), 'WC and family and medical leave act claim contagion'. *Journal of Risk and Uncertainty* **20**(1), 89–112.

Johnson, W. G., M. L. Baldwin, and R. J. Butler (1997), 'Back pain and work disability: The need for a new paradigm'. *Industrial Relations* **37**(1), 9–34.

Kleinman, N. L., R. A. Brook, J. F. Doan, A. K. Melkonian, and R. W. Boran (2009a), 'Health benefit costs and absenteeism due to insomnia from the employer's perspective: A retrospective, case-control, database study'. *Journal of Clinical Psychiatry* **70**(8), 1098–1104.

Kleinman, N. L., M. Durkin, A. Melkonian, and K. Markosyan (2009b), 'Incremental employee health benefit costs, absence days, and turnover among employees with ADHD and among employees with children with ADHD'. *Journal of Occupational and Environmental Medicine* **51**(11), 2147–1255.

Kleinman, N. L., J. M. S. Harnett, A. Melkonian, W. Lynch, B. Kaplan-Machlis, and S. L. Silverman (2009c), 'Burden of fibromyalgia and comparisons with osteoarthritis in the workforce'. *Journal of Occupational and Environmental Medicine*. forthcoming.

Krueger, A. B. (1990), 'Incentive effects of WC insurance'. *Journal of Public Economics* **41**, 73–99.

Lanoie, P. (1992a), 'The impact of occupational safety and health regulation on the risk of workplace accidents: Quebec: 1983–87'. *The Journal of Human Resources* **27**(4), 643–660.

Lanoie, P. (1992b), 'Safety regulation and the risk of workplace accidents in Quebec'. *Southern Economic Journal* **58**, 950–965.

Link, C., S. Long, and R. Settle (1980), 'Cost sharing, supplementaryinsurance, and health services utilizationamong the elderly'. *Health Care Financing Review* **2**, 25–31.

Lynch, W. D. and H. H. Gardner (2008), *Aligning Incentives, Information, and Choice*. Cheyenne, WY: Health as Human Capital Foundation.

Lynch, W. D., H. H. Gardner, and N. L. Kleinman (2006), 'Selection of high deductible health plans: Attributes influencing the likelihood of selection'. http://www.hcmsgroup.com/hcmsgroup/Publications/WhitePapers/adverseselection_2_13_06.pdf.

Malmgren, S. and G. Andersson (1984), 'Corporate reported sick leave and its relationship with education, responsibility and blood pressure'. *Scandinavian Journal of Social Medicine* **12**, 171–176.

Manning, W., J. Newhouse, N. Duan, E. Keeler, A. Leibowitzand, and M. Marquis (1987), 'Health insurance and the demand for medical care: Evidence from a randomized experiment'. *American Economic Review* **11**, 251–211.

McCall, N., J. Boismier, and R. West (1991), 'Private health insurance and medical care utilization: Evidence from the medicare population'. *Inquiry* **28**(Fall), 276–287.

Moore, M. J. and W. K. Viscusi (1990), *Compensation Mechanisms for Job Risks*. Princeton: Princeton University Press.

National Academy of Social Insurance (2009), 'WC: Benefits, Coverage, and Costs'. http://www.nasi.org/usr_doc/Workers_Comp_Highlights_2007.pdf.

Park, Y.-S. and R. J. Butler (2000), 'Permanent partial disability awards and wage loss'. *Journal of Risk and Insurance* **67**(3), 331–349.

Park, Y.-S. and R. J. Butler (2001), 'The safety costs of contingent work: Evidence from Minnesota'. *Journal of Labor Research* **22**(4), 831–849.

Ruser, J. and R. Butler (2010), 'The economics of occupational safety and health'. *Foundations and Trends in Microeconomics* **5**(5), 301–354. http://dx.doi.org/10.1561/0700000036.

Ruser, J. W. (1993), 'Workers' compensation and the distribution of occupational injuries'. *The Journal of Human Resources* **28**(3), 593–617.

Ruser, J. W. (1998), 'Does WC encourage hard to diagnose injuries?'. *The Journal of Risk and Insurance* **65**(1), 101–124.