Statement on

Workers' Compensation: Recent Developments and

The Relationship with Social Security Disability Insurance

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I. Introduction

Chairwoman Woolsey, Ranking Member Rodgers, and Members of the Subcommittee on Workforce Protections: Thank you for the opportunity to testify about "Workers' Compensation: Recent Developments and the Relationship with Social Security Disability Insurance."

I am an Emeritus Professor at Rutgers University and at Cornell University. I was the Dean of the School of Management and Labor Relations at Rutgers from 1994 to 2000. I have conducted research and served as consultant on workers' compensation throughout my career. I was the Chairman of the National Commission on State Workmen's Compensation Laws, which submitted its *Report* to the Congress and to President Richard Nixon in 1972. I am Chair of the Workers' Compensation Data Study Panel of the National Academy of Social Insurance.

II. Workers' Compensation: Overview and Developments

Each state has a workers' compensation program that provides cash benefits, medical care, and rehabilitation benefits to workers who are disabled by work-related injuries and diseases as well as survivors' benefits to families of workers who experience workplace fatalities. There are also several federal workers' compensation programs. However, there are no federal standards for state workers' compensation programs, and there are considerable differences among the states in the level of benefits, the coverage of employers and employees, and the rules used to determine which disabled workers are eligible for benefits.

The initial state workers' compensation programs were enacted in 1911, which makes workmen's compensation (as the program was known until the 1970s) the oldest social insurance program in the U.S. Over the last 100 years, workers' compensation programs have experienced periods of reform and regression.

As an example, the level of workers' compensation cash benefits relative to wages deteriorated in most states in the decades after World War II. One consequence of the deterioration in state workers' compensation programs was the creation of the National Commission on State Workmen's Compensation Laws by the Occupational Safety and Health Act of 1970.

The National Commission's 1972 *Report* was critical of state workers' compensation programs, describing them as "in general neither adequate nor equitable." The National Commission made 84 recommendations, and described 19 of the recommendations as essential. The reforms in state workers' compensation programs in the next few years were impressive: the average state compliance score with the 19 essential recommendations increased from 6.9 in 1972 to 11.1 in 1976 to 12.0 1980 (Robinson et al. 1987: Table 1). But reform of most state workers' compensation laws then slowed, so that by 2004 (when the U.S. Department of Labor stopped monitoring the states), on average states complied with only 12.8` of the 19 essential recommendations of the National Commission (Whittington 2004).

At the risk of oversimplifying the almost 40 years since the National Commission submitted its *Report*, I would characterize the 1970s as the Reformation Period, the 1980s as the Relative Tranquility Period, and the years since 1990 as the Counter Reformation Period. The extent of the deterioration in adequacy and equity of state workers' compensation programs in the last 20 years is not reflected in compliance scores with the essential recommendations of the National Commission. Rather, the slippage has occurred in other aspects of the program. A number of states changed their workers' compensation laws during the 1990s to reduce eligibility for benefits (Spieler and Burton 1998). These provisions included limits on the compensability of particular medical diagnoses, such as stress claims and carpal tunnel syndrome; limits on coverage when the injury involved the aggravation of a preexisting condition; restrictions on the compensability of permanent total disability cases; and changes in procedural rules and evidentiary standards, such as the requirement that medical conditions be documented by "objective medical" evidence.

Research indicates that these legislative changes affected the workers' compensation benefits received by injured workers. For example, in 1990 Oregon adopted legislation that required that the work injury be the "major contributing cause" of the claimant's disability for the worker to qualify for workers' compensation benefits. Thomason and Burton (2005) estimated that this and similar changes reduced the amount of benefits received by Oregon workers by about 25 percent by the mid-1990s. Guo and Burton (2010) found that changes in state compensability statues and rules and more stringent administrative practices were major contributors to the decline in workers' compensation cash benefits during the 1990s. More of the decline in workers' compensation cash benefits in the states during the 1990s is explained by these changes in workers'

compensation provisions and practices than is explained by the drop in workplace injuries and diseases during the decade.

The changes in workers' compensation programs in the current decade have not yet been analyzed using the methodology relied on by Guo and Burton (2010). However, my impression is that the statutory and regulatory changes in recent years may have carried the Counter Reformation Period to new levels. One traditional "principle" of workers' compensation is that "the employer takes the worker as she [the employer] finds him [the employee]". As a practical matter, this principle meant that if an employee had a previous medical condition that had not resulted in lost earnings, and if the employee had a workplace injury that produced a degree of disability that was due to the combination of the new workplace injury and the previous medical condition, the employer was responsible for all of the consequences of the workplace injury, including those that resulted from the interaction of the previous medical condition and the new workplace injury. While there were serious inroads into this principle in the 1990s, the current decade has added a new challenge. California now apportions permanent partial disability awards so the employer is only responsible for the portion of the permanent disability that can be attributed to the new workplace injury.

The current decade also appears to have unusually significant reductions in the amount of benefits that workers are entitled to receive if they qualify for permanent partial disability (PPD) benefits. Since 2000, workers' compensation reforms reduced PPD benefits in several large states. California, Florida, and New York accounted for almost one-third of all workers' compensation benefit payments as of mid-decade (2005) (Sengupta, Reno, and Burton 2010, Table 7). Between 2000 and 2009, California reduced permanent partial disability benefits by over 60 percent, Florida reduced PPD benefits by almost 20 percent, and New York reduced PPD benefits by about 20 percent (NCCI 2010, Exhibit III).

III. Social Security Disability Insurance

Social Security Disability Insurance (SSDI) is the largest income replacement program for non-elderly Americans. The coverage rules for employers and workers, the eligibility standards for SSDI benefits, and the benefit levels are determined at the federal level. The federal SSDI and Medicare programs provide cash benefits and health care coverage to disabled beneficiaries until they return to work, die, or qualify for Social Security Old Age benefits. The SSDI cash benefits are provided to former workers (and their dependents) who are totally disabled from any cause. In addition, Medicare benefits and rehabilitation benefits are provided regardless of the cause of the disability.

There are important limits on SSDI and Medicare benefits for disabled persons. SSDI benefits are only provided to workers with an extended period of covered employment prior to disability. Benefits are paid regardless of the cause of the disability, but only when the disability precludes substantial gainful employment. SSDI benefits only begin after a five-month waiting period and Medicare benefits are only available twenty-nine months after the onset of total disability.

IV. Differences Between Workers' Compensation and SSDI

Workers' compensation differs from Social Security Disability Insurance and Medicare in important ways. Workers are eligible for workers' compensation benefits from the first day of employment. Workers' compensation medical benefits are paid immediately after the injury occurs. Temporary disability benefits are paid after a waiting period of three to seven days; permanent partial and permanent total disability benefits are paid to workers who have lasting consequences from injuries and diseases caused by the job; and every state pays benefits to survivors of workers who die of work-related injuries and diseases. The most expensive type of workers' compensation benefits involves workers with permanent, but partial, disabilities.

V. Relationship Between Workers' Compensation and SSDI

SSDI (in conjunction with Medicare) is the largest source of cash and medical benefits for disabled workers in the U.S. and workers' compensation is the second largest source. Workers' compensation and SSDI serve overlapping, although not identical, populations. Both programs pay medical and cash benefits to workers' with chronic, severely disabling conditions. SSDI benefits are limited to workers whose injury or disease precludes substantial gainful employment. To use workers' compensation terminology, SSDI benefits are limited to persons who are permanently and totally disabled.

Workers' compensation is the only significant civilian disability income program, either private or public, that pays benefits to workers who are either partially or totally disabled.¹ However, the criteria used by state workers' compensation programs to determine whether a worker is totally disabled differ from those used by the Social Security Administration (SSA) for the SSDI program. Consequently, it is possible for an injured worker to be judged totally disabled by the SSA, and thus eligible for SSDI benefits, but only partially disabled by a state workers' compensation program. Furthermore, the criteria used to determine the extent of disability vary among state workers' compensation programs.

Coordination of Benefits

Congress has long been concerned about the relationship between workers' compensation benefits and the SSDI benefits since some individuals qualify for benefits from both programs. The payment of SSDI and workers' compensation benefits has been coordinated since 1965. Specifically, if a person is receiving both SSDI and workers' compensation benefits, the combined benefits are limited to 80 percent of the claimant's preinjury wages. Federal law provides as a "default" that SSDI benefits are reduced or "offset" in order to achieve the 80 percent limit. Initially, states could enact laws that reduced workers' compensation benefits rather than SSDI benefits (which are known as "reverse offset" laws). However, in 1981 Congress eliminated this option for all but the 15 states that already had "reverse offset" legislation.

Congress appears to have had several overlapping purposes with the offset provision. First, by limiting the combined SSDI and workers' compensation benefits to 80 percent of preinjury wages, the total costs of the programs are reduced for workers who continue to qualify for both programs. Second, by limiting the portion of preinjury wages that is replaced, workers are encouraged to engage in rehabilitation and to return to work rather than continue to receive disability benefits from the two programs. Third, the 1981 decision to prohibit additional states from adopting reverse offset laws was motivated by an effort to protect the financial status of the federal SSDI Trust Fund rather than allow the savings from the 80 percent limit on benefits to be returned to employers and carriers in state workers' compensation programs.

As of December 2009, 7.9 percent of SSDI beneficiaries had a current connection to workers' compensation or public sector disability programs, including beneficiaries in reverse offset states, and an additional 7.0 percent of SSDI beneficiaries had a previous connection to workers' compensation (Sengupta, Reno, and Burton 2010, Table 17).

Possible Shifting of Costs from Workers' Compensation to SSDI

There are several reasons why Congress should be concerned about the possible shifting of the costs of workplace injuries and diseases from the state workers' compensation programs to the federal SSDI program.

First, the 15 states with "reverse offset" provisions allow carriers and employers to reduce workers' compensation benefits when the SSDI program is paying benefits to disabled workers, thereby requiring the federal program to pay for some of the consequences of workplace injuries and diseases..

Second, there is evidence indicating that the SSDI program is paying benefits to workers who were disabled at work but who did not qualify for workers' compensation benefits. Reville and Schoeni (2003/2004) examined a nationally representative sample of persons aged 51 to 61 in 1992. Among those who reported a health condition caused by their work, only 12.3 percent ever received workers' compensation benefits, while 29 percent were currently receiving SSDI benefits.

Third, the Reville and Schoeni results pertain to a 1991 sample, but there have been changes in workers' compensation programs since then that are likely to have further increased the number of workers whose disabilities were caused by the workplace who do not qualify for workers' compensation benefits. Burton and Spieler (2001) suggested that these changes are likely to have a disproportional effect on older workers, who in turn are the most likely applicants for SSDI benefits.

Fourth, as Sengupta, Reno, and Burton (2010:43-44) recently observed: "The opposite trends in workers' compensation and Social Security disability benefits during much of the last twenty-five years raise the question of whether retrenchments in one program increase demands placed on the other, and vice versa. The substitutability of Social Security disability benefits and workers' compensation for workers with severe, long-term disabilities that are, at least arguably, work related or might be exacerbated by the demands or work, has received little attention by researchers and is not well understood."

Fifth, workers' compensation programs rely on experience rating of premiums, which are based in part on benefits paid by all firms in the industry and in part on the firm's own benefits compared to other firms in the industry. In theory, firms have incentives to improve safety in order to reduce premiums and to remain competitive. While the evidence supporting the theory is mixed, Thomason (2005: 26) concluded "Taken as a whole, the evidence is quite compelling: experience rating works." To the extent that the costs of workplace injuries are shifted from workers' compensation to SSDI, the safety incentives provided by the workers' compensation program are diluted.

Evidence on the Shifting of Costs from Workers' Compensation to SSDI

There are several studies examining whether the changes in the workers' compensation programs during the 1990s resulted in more applications for SSDI benefits. Xuguang (Steve) Guo and I published an article (Guo and Burton 2008) examining the application rates for SSDI benefits in approximately 45 jurisdictions between 1985 and 1999.² We found that higher levels of expected cash benefits provided by workers' compensation programs relative to state average weekly wages are associated with lower application rates for SSDI benefits. Since expected workers' compensation cash benefits actually declined during the 1990s, the variable helped explain higher SSDI application rates for SSDI benefits. We also found that tightening compensability rules in state workers' compensation programs are associated with higher application rates for SSDI benefits. Since the compensability rules were tightening during the 1990s, this variable also helped explain an increase in SSDI applications during the decade.

Professor Guo and I have been refining our model and methodology in the last two years, including the improvement of the variables measuring factors other than those pertaining to the workers' compensation programs that help explain applications for SSDI benefits. Our recent (and as yet unpublished) results indicate that the aging population was the largest contributor of the growth in SSDI applications during the period we examined (1981-1999), and can explain more than half the growth SSDI rolls in 1990s. The share of female employment is another important factor, which was associated with almost 18 percent of the change of SSDI applications between the 1980s and 1990s.³ Our results suggest that reduction in the amounts of workers' compensation permanent disability benefits during the 1990s accounted for about 3 to 4 percent of the growth of SSDI applications during the decade.

The finding that applications for SSDI benefits during the 1990s were affected by changes in workers' compensation programs must be used with caution. Professor Guo and I received this month the data for SSDI applications by state for years after 2001. We do not currently have the values after 1999 for the workers' compensation variables we used to analyze the SSDI application rates during the 1981 to 1999 period. However, in very preliminary work, we did not find that the changes in other measures of the workers' compensation programs through 2006 helped explain the changes in SSDI applications during the current decade. In addition, an unpublished article by McInerney and Simon (2010) of the determinants of SSDI applications concluded that it was unlikely that state workers' compensation changes were a meaningful factor in

explaining the rise in SSDI applications and SSDI new cases during the period from 1986 to 2001.

There is thus some modest, although not compelling, empirical evidence that changes in workers' compensation programs since the early 1990s resulted in additional applications for SSDI benefits. The need for additional research on this issue is obvious.

VI. Policy for Workers' Compensation

The developments in state workers' compensation programs in the last two decades are reminiscent of the deterioration of state workers' compensation programs in the decades prior to 1972, when the National Commission on State Workmen's Compensation Laws concluded that "State workmen's laws are in general neither adequate nor equitable."

If the plight of workers' compensation in 2010 sounds like that of 1972, then the fundamental causes of the problems of the workers' compensation program also have a familiar tone. As the National Commission observed (1972: 124-125):

The economic system of the United States encourages efficiency and mobility. These forces tend to drive employers to locate where the environment offers the best prospect for profit. At the same time, many of the programs which governments use to regulate industrialization are designed and applied by States rather than the Federal government. Any State which seeks to regulate the byproducts of industrialization, such as work accidents, invariably must tax or charge employers to cover the expenses of such regulations. This combination of mobility and regulation poses a dilemma for policymakers in State governments. Each state is forced to consider how it will regulate its domestic enterprises because relatively restrictive or costly regulations may precipitate the departure of employers to be regulated or deter the entry of new enterprises.

Can a State have a modern workers' compensation program without driving employers away? . . . While the facts dictate that no State should hesitate to improve its workmen's compensation program for fear of losing employers, unfortunately this appears to be an area where emotion too often triumphs over fact. . . . it seems likely that many States have been dissuaded from reform of their workmen's compensation statute because of the specter of the vanishing employer, even if that apparition is a product of fancy not fact. A few states have achieved genuine reform, but most suffer with inadequate laws because of the drag of laws of competing States.

If the current plight of state workers' compensation programs and the cause of the deficiencies strike a familiar chord with those from 1972, so do the basic solutions resonate across the years. One approach considered and rejected by the National Commission was federalization of the state workers' compensation programs – that is

the enactment of a federal workers' compensation law that would displace state laws and turn over the administration of a national workers' compensation program to federal employees. In contrast, the policy recommended by the National Commission to enhance the virtues of a decentralized, state-administered workers' compensation programs was the enactment of federal standards for the state programs if necessary to guarantee state compliance with the 19 essential recommendations of the National Commission

The notion of federal standards for workers' compensation is probably unrealistic in the current political environment. And determination of appropriate federal standards for a 21st century workers' compensation program would probably be more difficult now than it was in 1972. The fact that most of the recent deterioration in state workers' compensation laws has involved tightening of eligibility standards in ways unforeseen prior to the 1990s suggests how difficult it would be to frame new federal standards to deal with current manifestations of lack of adequacy and equity. But if the National Commission on State Workmen's Compensation Laws, whose members largely consisted of Republicans appointed by the Nixon White House, could unanimously endorse federal standards in 1972, I do not totally despair that Congress or some other responsible organization could in the current era reaffirm the National Commission's final sentence: "the time has now come to reform workmen's compensation substantially in order to bring the reality of the program closer to its promise." And the advantage of federal standards as a way to conserve the essential characteristics of the state-run workers' compensation system – however paradoxical at first glance – also warrants reaffirmation.

VII. Policy for SSDI

My research with Professor Guo provides the first evidence we have seen that changes in workers' compensation programs since 1990 increased the number of applications to the SSDI program. As I indicated, the evidence is not conclusive and the relationship between workers' compensation and SSDI needs further research. But if additional research confirms our preliminary findings about the shifting of costs of workplace injuries and diseases from workers' compensation to SSDI, one consequence will be the aggravation of the financial problems of the federal program.⁴

Congress has previously enacted legislation to protect the SSDI program from costs being shifted from state workers' compensation programs. There are two types of new legislation that could serve the Congress's legitimate role in protecting the SSDI program from increased applications resulting from lower permanent disability benefits and more restrictive compensability standards in workers' compensation.

First, Congress could enact Federal standards for state workers' compensation programs that require states to provide adequate permanent disability benefits to workers who can establish that their disabilities were caused by the workplace using causation standards that do not contain the restrictive provisions adopted by many states since the early 1990s.

Second, Congress could enact legislation treating applications for cash benefits from the SSDI program in a manner roughly similar to the current Federal policy for Medicare benefits when the patient's need for medical care is due at least in part to a workplace injury or disease. Under the Medicare Secondary Payer Act, certain types of workers' compensation claims must set aside funds to cover medical expenses that might otherwise be shifted to the Medicare Program.

The principle for medical benefits could be adapted to cash benefits by the enactment of the Social Security Disability Insurance Secondary Payer Act (SSDISPA).

- The SSDISPA would apply to all claims filed for SSDI benefits that:
 - •• Involve injuries or diseases with consequences that last at least six months after the date of disablement, and
 - •• Are compensable under the applicable state's workers' compensation law or would have been compensable using the work-related test included in the Workmen's Compensation and Rehabilitation Law (Revised), [*Model Workers' Compensation Law*], which was published by the Council of State Governments in 1974.
- For all claims to which the SSDISPA applies, the employer (or carrier) must reimburse the Social Security Administration for all SSDI benefits paid because the employer did not pay all of the permanent disability benefits required by the *Model Workers' Compensation Law*.

I recognize that this proposal for the SSDISPA lacks some important components, such as the specification of an agency for determining whether the SSDI applications involve injuries or diseases to which the SSDISPA is applicable. And there would be additional administrative expenses required to implement the SSDISPA. However, there may be no alternative to such legislation if Congress is unwilling to enact federal standards for state workers' compensation programs and if Congress wants to protect the financial integrity of the SSDI program.

Thank you again for the opportunity to present this testimony.

References

- Burton, John F., Jr. 2004. "The National Commission on State Workmen's Compensation Laws." *Workers' Compensation Policy Review.* Vol. 4, No. 4 (July/August): 13-20. [The article can be downloaded from www.workerscompresources.com]
- Burton, John F., Jr. and Emily A. Spieler. 2001. Workers' Compensation and Older Workers. In Peter P. Burdetti, Richard V. Burkhauser, Janice M. Gregory, and H. Allan Hunt, eds. *Ensuring Health* and Income Security for an Aging Workforce. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Council of State Governments. 1974. *Workmen's Compensation and Rehabilitation Law (Revised)*. Lexington, KY: The Council of State Governments. Portions reprinted in John F. Burton, Jr. and Florence Blum, eds. *Workers' Compensation Compendium 2005-06, Volume Two.* Princeton, NJ: Workers' Disability Income Systems, Inc.: 104-124.
- Guo, Xuguang (Steve) and John F. Burton, Jr. 2008. "The Relationship Between Workers' Compensation and Disability Insurance." In Adrienne E. Eaton, ed. *Proceedings of the 60th Annual Meeting of the Labor and Employment Relations Association.* Champlain, IL: Labor and Employment Relations Association.
- Guo, Xuguang (Steve) and John F. Burton, Jr. 2010. "Workers' Compensation: Recent Developments in Moral Hazard and Benefits Payments." *Industrial and Labor Relations Review*, Vol. 63, No. 2 (January): 340-55.
- McInerney, Melissa and Kosali Simon. 2010. "The Effect of state Workers' Compensation Program Changes on the Use of Federal Social Security Disability Insurance." Article currently under review.
- National Council on Compensation Insurance [NCCI]. 2010. *Annual Statistical Bulletin, 2010 Edition.* Boca Raton, FL: National Council on Compensation Insurance.
- National Commission on State Workmen's Compensation Laws. 1972. The Report of the National Commission on State Workmen's Compensation Laws. Washington, DC: Government Printing Office. [The Report can be downloaded from www.workerscompresources.com]
- Reville, Robert T. and Robert F. Schoeni. 2003/2004. "The Fraction of Disability Caused at Work." *Social Security Bulletin*, Vol. 65, No. 4: 3-17.
- Robinson, June M., John Anderson, Anne Giese, Jamie Goodman, and John F. Burton, Jr. 1987. State Compliance with the 19 Essential Recommendations of the National Commission on State Workmen's Compensation Laws, 1972-84. Washington, DC: U.S. Department of Labor, Employment Standards Administration, Office of Workers' Compensation Programs.
- Sengupta, Ishita, Virginia Reno and John F. Burton, Jr. 2010, *Workers' Compensation: Benefits, Coverage, and Costs, 2008.* Washington, DC: National Academy of Social Insurance.
- Social Security Board of Trustees. 2010. The 2010 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. Washington, DC. Government Printing Office.

- Spieler, Emily A. and John F. Burton, Jr. 1998. "Compensation for Disabled Workers: Workers' Compensation." In Terry Thomason, John F. Burton, Jr. and Douglas E. Hyatt, eds, *New Approaches to Disability in the Workplace*, Madison, WI: Industrial Relations Research Association, 205-44.
- Thomason, Terry. 2005. "Economic Incentives and Workplace Safety." In Karen Roberts, John F. Burton, Jr., and Matthew M. Bodah., eds. *Workplace Injuries and Diseases: Prevention and Compensation: Essays in Honor of Terry Thomason.* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 9-35.
- Thomason, Terry. and John F. Burton, Jr. 2001. "The Effects of Changes in the Oregon Workers' Compensation Program on Employees' Benefits and Employers' Costs." *Workers' Compensation Policy Review*, 1 (4), 7-23. [The article can be downloaded from www.workerscompresources.com]
- Whittington, Glenn A. 2004. State Workers' Compensation Laws in Effect on January 1, 2004 Compared with the 19 Essential Recommendations of the National Commission on State Workmen's Compensation Laws. Washington, DC: U.S. Department of Labor, Employment Standards Administration, Office of Workers' Compensation Programs. Reprinted in John F. Burton, Jr. and Florence Blum, eds. Workers' Compensation Compendium 2005-06, Volume Two. Princeton, NJ: Workers' Disability Income Systems, Inc.: 91-103.

Endnotes

³ The SSDI replacement rate and the Unemployment rate generally declined across those two decades, which *inter alia* would have resulted in fewer SSDI applications, and the change in the disability prevalence rate was minimal during the same period. Thus those three factors were not the sources of SSDI growth in the 1990s.

⁴According to the latest report of the Social Security Trust Funds (Social Security Board of Trustees 2010, 28) "Total DI disbursements, which started to exceed non-interest income in 2005, continue to exceed such income in 2009. In 2009, DI disbursements exceeded total DI income (including interest), the first time DI assets have declined on an annual basis since 1993."

¹ Accidental death and dismemberment (AD&D) insurance provides benefits if an accident results in an employee's death or certain dismemberments enumerated in the insurance contract. ² Professor Xuguang (Stove) Out and Leaved

² Professor Xuguang (Steve) Guo and I receive support for our study of the relationship between the workers' compensation program and the SSDI program from the Program for Disability Research (PDR) in the School of Management and Labor Relations at Rutgers: The State University New Jersey. The PDR has a subcontract from the Employment and Disability Institute at the School of Industrial and Labor Relations at Cornell University, which receives support from the National Institute on Disability and Rehabilitation Research (NIDRR).