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Workers' Compensation Reform and Return to Work

The California Experience

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Prepared for the California Commission on Health and Safety
and Workers' Compensation



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Summary

Introduction

Workers' compensation permanent partial disability (PPD) benefits provide wage replacement to workers who become permanently disabled as a result of occupational injuries and illnesses. There are a number of ways to measure the effectiveness of a workers' compensation system, but two that are widely accepted as being among the most important are the *adequacy* and the *affordability* of the system (see Thomason, Schmidle, and Burton, 2001; Reville, Seabury, et al., 2005). Generally speaking, *adequacy* reflects the extent to which indemnity benefits compensate an appropriate amount of worker earnings lost from a workplace injury. *Affordability* reflects the extent to which workers' compensation benefits, including the delivery costs, affect the cost to employers. Striking the appropriate balance between the adequacy and affordability of benefits is one of the key policy challenges in workers' compensation.

In California and in many other states, compensation for injured workers with permanent partial disabilities has been the most-expensive portion of the indemnity benefits, and the most-controversial part of the system. A number of studies by RAND for the California Commission on Health and Safety and Workers' Compensation (CHSWC) concluded that California's PPD benefit levels fell short of the generally accepted two-thirds income-replacement level of adequacy (Peterson et al., 1998; Reville, Schoeni, and Martin, 2002; Reville, Polich, et al., 2001). This was despite the fact that the average benefit levels and costs in California were the highest in the country (Reinke and Manley, 2003).

The poor adequacy and poor affordability of the California PPD system were both key factors in the multiple efforts to reform workers' compensation in California in the early 2000s. Unfortunately, the most-obvious solutions to the two problems are somewhat contradictory: Cutting benefits would make the system more affordable but also reduce benefit adequacy. Similarly, increasing benefits would improve adequacy but make the system more expensive. It is possible, however, to improve the adequacy of workers' compensation benefits without necessarily harming affordability. In particular, one important mechanism through which the system could achieve improvements along both dimensions is by improving the frequency or speed of return to work for permanently disabled workers.

Poor return-to-work outcomes for PPD recipients in California was the key factor in explaining why the high benefits in California still resulted in higher uncompensated losses (Boden, Reville, and Biddle, 2005). Improved return to work is typically thought of as having the potential to benefit employers as well, by lowering benefit and other payroll costs.¹ This

¹ Most firms in California insure their workers' compensation benefits, meaning that they do not directly pay for the benefits. Lower benefits could still reduce employer costs, however, by reducing the amount of their insurance premiums.

suggests that, if return to work were sufficiently improved, the system could be made more affordable while still leading to improved outcomes for disabled workers.

The return-to-work rates of disabled workers have become an issue of critical importance in the wake of the recent reform efforts. Senate Bill (SB) 899, enacted in 2004, made sweeping changes to the workers' compensation system, including a massive overhaul of the permanent-disability (PD) rating system. One consequence of the new disability rating system has been a dramatic reduction in benefits for disabled workers. SB 899 also included a number of provisions to improve return to work. If these reforms were effective at bringing workers back to work sooner, then improved outcomes for disabled workers could offset some of the adverse impact of the lower benefits. However, return to work is a complex process that involves many factors, and it is not fully understood exactly what role workers' compensation policy has in promoting improved return-to-work outcomes. Additionally, there were a number of other changes to public policies, in and out of the workers' compensation system, that happened at similar times and potentially confound any analysis of the impact of SB 899.

To assist policymakers in sorting through these different factors, this study provides a systematic analysis of return to work by disabled workers in the California workers' compensation system. To do so, we address the following broad set of research questions:

- How do public policies, both within and outside the workers' compensation system, influence return to work? How have these policies changed in California over the past ten years?
- How have rates of return to work by injured and disabled workers in California changed over the past ten years?
- What has been the impact of reforms to the workers' compensation system on the adequacy of benefits for injured and disabled workers? How, if at all, have changes in benefit adequacy been influenced by changes in return to work?

In order to address these questions, we analyze data from numerous sources using a variety of techniques.

Workers' Compensation Policy and Return to Work

This study reviews the role of public policy in promoting return to work. In the majority of cases, the return-to-work process is probably quite straightforward. There are circumstances, however, in which complications can arise, particularly if the recovery time for an injury is extensive. Perhaps the biggest complicating factor is when there is disagreement between the worker and either the employer or the worker's physician about the necessary recovery period and the extent to which the injury impairs the worker's ability to perform necessary job functions. Many workplace injuries involve factors that can be difficult to diagnose and quantify with current medical technology, leaving room for uncertainty and disagreement about what activities an injured worker can reasonably be expected to perform. In such situations, special measures might be called for to facilitate the injured worker's return to work in a timely but safe fashion.

The other payroll costs include such factors as the retraining and hiring costs of replacement workers.

We classify policy efforts to promote return to work into three broad categories: medical management–based, incentive-based, and accommodation-based approaches. The medical management approaches attempt to improve return to work by improving the quality and timely receipt of medical care or by improving coordination and communication with medical providers. Some reforms that target this involve assigning control of provider choice or directly regulating care through utilization review or treatment guidelines. The incentive-based approaches use financial rewards (or punishments) to influence the behavior of employers or the workers themselves, often by manipulating disability benefits based on return-to-work status. Finally, accommodation-based methods alter the requirements of the job—the schedule, the tasks required, or the physical environment—in order to make it easier for a disabled worker to perform the necessary tasks. Some states have adopted subsidies for employers, giving them incentives to provide accommodations in an effort to improve employment for disabled workers.

Over the past ten years, California has adopted reforms that affect all of these broad policy categories. In 2003, SB 228 made massive changes to medical treatment delivery for workers' compensation cases, including the adoption of utilization review based on treatment guidelines and caps on certain therapies. SB 899 enacted a two-tier PD benefit that requires employers to pay 15 percent higher benefits when they make no offer of return to work and 15 percent lower benefits if they do. It also created a subsidy program for worksite modifications made by small businesses, though this was a small program and never widely used.

There were also changes made outside the workers' compensation system. One important change occurred in 2001 with the passage of Assembly Bill (AB) 2222, which strengthened the protections offered by California's Fair Employment and Housing Act (FEHA). FEHA protects disabled workers against discrimination in the labor market, including the entitlement of the disabled to "reasonable" accommodations by employers. Employers that allegedly fail to make these accommodations could be subject to tort liability, giving them strong incentives to comply with the requirements of the law. Given that the law applies to workers who become disabled as a result of a workplace injury, we might expect FEHA to have an impact on return-to-work outcomes in workers' compensation PD cases. We show that the strengthening provisions of AB 2222 led to a large increase in the number of discrimination claims starting in 2002.

In addition to reviewing the policy changes, we surveyed employers about their perceptions of the importance of workers' compensation in terms of influencing their decisions to make return-to-work offers for disabled workers. Using a small, nonrandom sample of small, insured employers and large, self-insured employers, we find that workers' compensation costs do appear to have an impact on employer decisions. A large majority of both small and large firms report that workers' compensation costs are an important factor in shaping their employer-based return-to-work policies. A much smaller fraction reports that the public policy reforms that have been implemented are an important factor.

Recent Trends in Return to Work

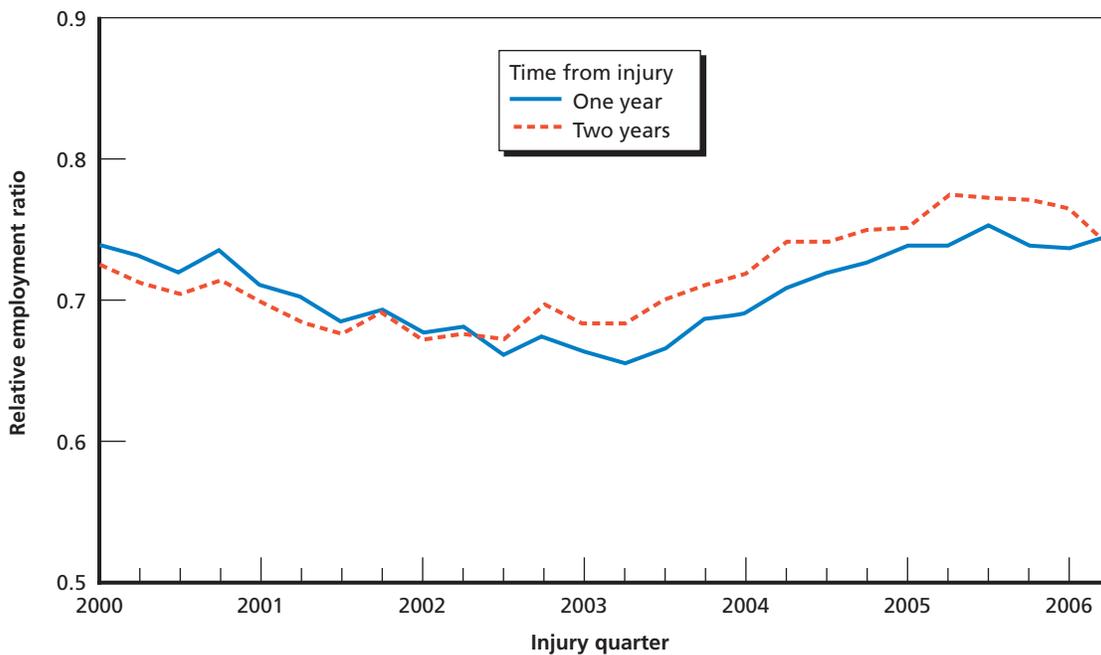
To evaluate the return to work of injured and disabled workers since the reforms, we analyzed data on workers' compensation claims for injured workers from 2000 to 2007 reported to the Workers' Compensation Insurance Rating Bureau (WCIRB) and Disability Evaluation Unit

(DEU). These data were linked to quarterly earning data from the Employment Development Department (EDD). Using methods developed in past RAND studies, we match injured workers to uninjured “control” workers to estimate the change in postinjury outcomes that are attributable to the injury. Matching to the control workers allows us to eliminate trends and other confounding factors that could influence disabled workers’ postinjury employment and earnings.

Figure S.1 reports the *relative employment ratio* of injured workers one and two years after injury, by quarter of injury. The relative employment ratio is defined as the ratio of the average employment of injured workers to that of their matched controls. So, a ratio of 1 means that injured workers are equally likely to be working after an injury, while a ratio of 0.5 means that they are half as likely to be working after an injury. We focus on relative employment at one and two years (four and eight quarters, respectively) after the quarter in which the injury occurs. The figure reports the average value of both one-year and two-year relative employment by quarter in which the injury occurs. The horizontal axis represents the year and quarter in which the workers were injured.

The figure shows a distinct pattern of postinjury employment over this time period. Workers injured in 2000 and 2001 appeared to have generally declining relative employment rates both one and two years after injury. Beginning in mid- to late 2002, however, the trend appeared to reverse, and return to work in the second year postinjury began to improve. Outcomes during the first year after injury began improving in early 2003. Workers injured in 2005 and the beginning of 2006 had higher relative employment on average at both one and two years after injury than workers injured in early 2000. Note that we also see more improvement for injured workers in the second year after the date of injury.

Figure S.1
Relative Employment One and Two Years After Injury, by Quarter of Injury

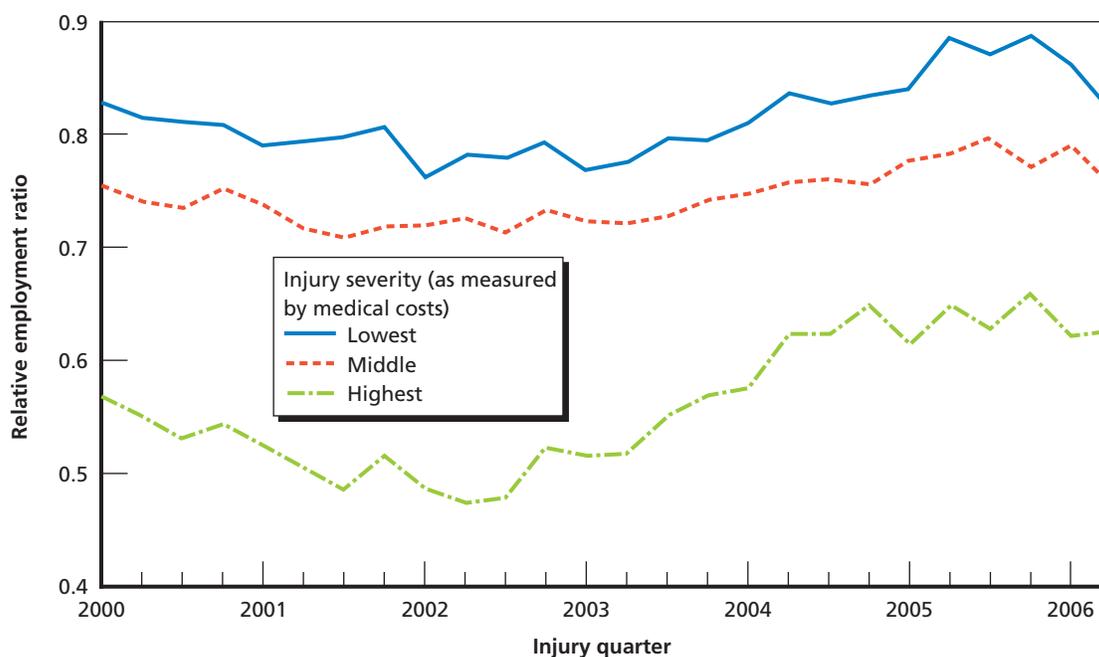


In Figure S.2, we report the trends in relative employment two years after the quarter of injury, by severity category, for workers in the WCIRB sample. Here we measure injury severity based on the distribution of medical costs of injured workers by quarter of injury. That is, workers are put in the lowest, middle, or highest severity category depending on whether they were in the bottom, middle, or top third of the distribution of medical costs for all other workers injured in the same quarter. As in Figure S.1, the horizontal axis represents the year and quarter in which the workers were injured.

The figure indicates that the overall trend in relative employment is most-clearly pronounced for workers with the most-severe injuries. While there appears to be some evidence of an overall decline and improvement in relative employment for workers in the lowest and middle severity categories, both the initial decline and subsequent increase were larger for workers in the highest severity category. Workers in the highest severity category who were injured in the first quarter of 2000 had relative employment of about 0.5 two years later, and this fell to just over 0.4 for workers injured in the third quarter of 2002. But workers injured in 2005 or early 2006 had relative employment close to 0.6 two years after the date of injury. Thus, the data suggest that the most-severely injured workers experienced the biggest gains in return to work over this period. These are the workers who have the worst postinjury outcomes, so this represents a significant improvement in return to work.

While Figure S.2 reports only results for all workers in the WCIRB sample, we verify that the trends are consistent if we use the DEU data (which include insured and self-insured employers) and focus only on permanently disabled workers. We also verify that we see the same trends if we restrict our attention to return to the at-injury employer. Additionally, we compare the results by firm size and find similar trends across small, medium, and large firms.

Figure S.2
Trends in Relative Employment Two Years After Injury, by Injury Severity



The trends post-2005 do appear most pronounced for medium-size firms, which is noteworthy because these were the firms that were most likely to be affected by the tiered benefit.

Given the multitude of reforms that occurred in the early 2000s in California, it is difficult to attribute the trends fully to any particular reform. The fact that the trend appears prior to 2004 indicates that the improvements were not driven by the return-to-work provisions of SB 899 (at least not entirely). The trend appears to be more likely to be influenced by other factors, such as changes to the medical treatment system, the strengthening provisions of FEHA, or simply employers' own efforts to improve return to work (e.g., in an effort to minimize costs).

Trends in Disability Benefits and Replacement Rates

The changes to the disability rating system, particularly the adoption of the American Medical Association *Guides to the Evaluation of Permanent Impairment* (AMA Guides) as the bases for ratings, were intended to make PD claims more-directly related to objective medical evidence.² One implication of this was that there was a general expectation that there would be a number of injured workers who would have received PD benefits under the old rating system that would no longer receive benefits. Figure S.3 compares the share of injuries in the WCIRB sample that involve permanent disability, by injury quarter for 2000–2006.

The figure indicates a steep decline in PD claims from 2000 to 2006, falling to about 80 percent of the 2000 level. Note that the high share is due to the fact that the WCIRB samples only relatively severe cases (expected benefits of \$2,000 or more). The decline is not closely associated with the adoption of the AMA Guides. There is an overall decline in the share of PD awards over the entire period, with the decline steepening somewhat for 2004 injuries. While we might have expected a sharper change, it is worth noting that the use of the new schedule was tied to the date of maximum medical improvement, not the injury date. Thus, it is likely that some injuries that occurred prior to 2004 were also affected by the new schedule.

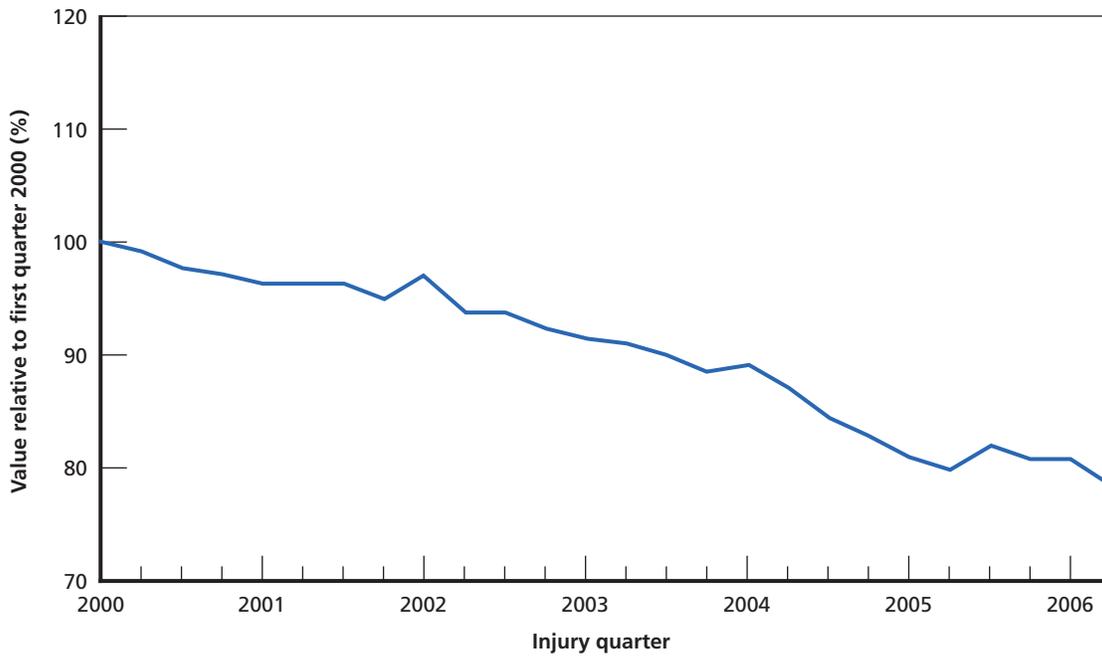
In Figure S.4, we compare the changes in indemnity benefits separately for temporary and permanent disabilities. Because the levels of benefits differ substantially between permanent and temporary claims, we normalize the vertical axis to the percentage value relative to first quarter 2000. That is, the level is 100 percent in first quarter 2000, and each subsequent quarter reflects the percentage value relative to the baseline year (so a 90 in a given quarter indicates a 10-percent decline in benefits from first quarter 2000).

As expected, the two types of injuries display substantially different time series. Temporary benefits rose somewhat from 2000 to 2003 and then dropped back off from 2003 to 2004. Note that this closely mirrors the trend in return to work over this period, and it ultimately leaves benefits mostly unchanged for temporary injuries from 2000 to 2006. For permanent disabilities, however, there was little growth from 2000 to 2003, and benefits were almost identical for injuries in third quarter 2003 as in first quarter 2000. After that, however, benefits for PD cases fall substantially, to about two-thirds of the baseline level by first quarter 2006.³

² California's old rating system was widely believed to be more subjective than the AMA Guides. See Reville, Seabury, et al. (2005) for a discussion.

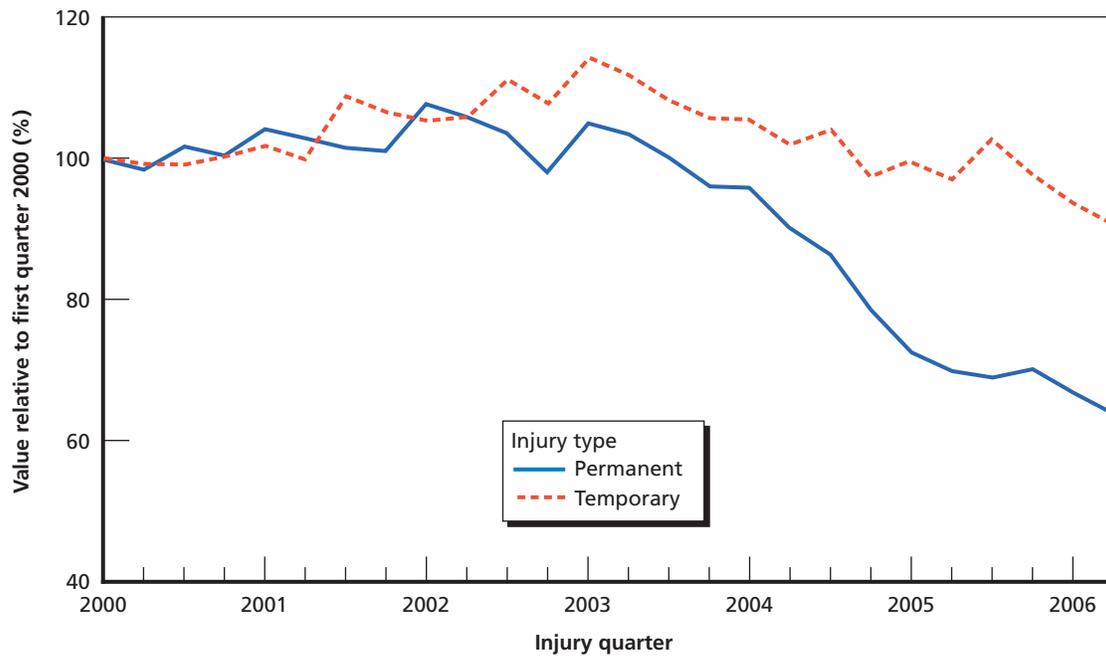
³ It is important to note that the entire decline in benefits cannot be attributed to changes to the PD rating schedule. Vocational rehabilitation benefits represented a significant portion of the total indemnity benefit for permanently disabled

Figure S.3
Change in the Share of Claims Involving Permanent Disability, by Injury Quarter, First Quarter 2000 Baseline



RAND MG1035-S.3

Figure S.4
Change in Incurred Indemnity, by Type of Injury and Injury Quarter, First Quarter 2000 Baseline



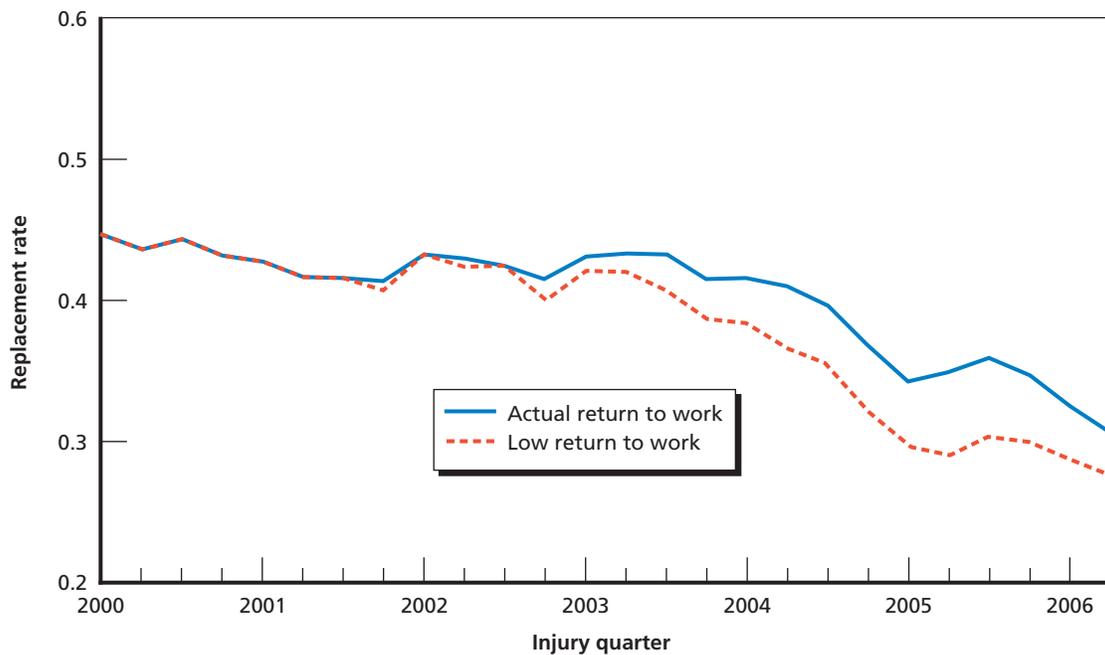
RAND MG1035-S.4

To truly evaluate the impact that declines in disability benefits had on injured and disabled workers, we need to compare the disability benefits to earning losses. The *replacement rate* of lost income is the fraction of earning loss that is replaced by workers' compensation indemnity benefits. A key limitation of our data, however, is that we have only a restricted window of postinjury earning data with which to estimate losses for the later injuries in our sample. In particular, for injuries in 2006, we have just two years of postinjury losses to examine. In order to evaluate the reforms' impact on income replacement, we use a statistical model to forecast the five-year earning losses to injured workers.

An advantage of our approach is that it allows us to quantify how much of an effect the return-to-work gains had on earning losses and replacement rates. Because we are predicting losses as a function of observed return-to-work rates, we can simulate what the losses would have been had we not observed any improvement in average return-to-work rates. We do this by fixing the two-year employment of individuals at the average rate for the quarter with the worst observed return to work—third quarter 2001—and recalculating the predicted losses and replacement rates while holding return to work fixed at this low level for all subsequent quarters.

Figure S.5 reports the simulated five-year replacement rates of lost income for the full set of injuries in the WCIRB sample. We report the estimated replacement rates using the actual return-to-work rates and the return-to-work rates fixed at the low, 2001 level. The replacement rate was fairly stable over time from first quarter 2000 through third quarter 2004, with the replacement rate ranging from 0.40 to 0.45 in all quarters. After that, replacement rates drop sharply, falling to 0.35 for first quarter 2005 injuries and close to 0.30 for second quarter 2006 injuries.

Figure S.5
Simulated Replacement Rate of Lost Income Five Years After Injury, Full Set of Claims

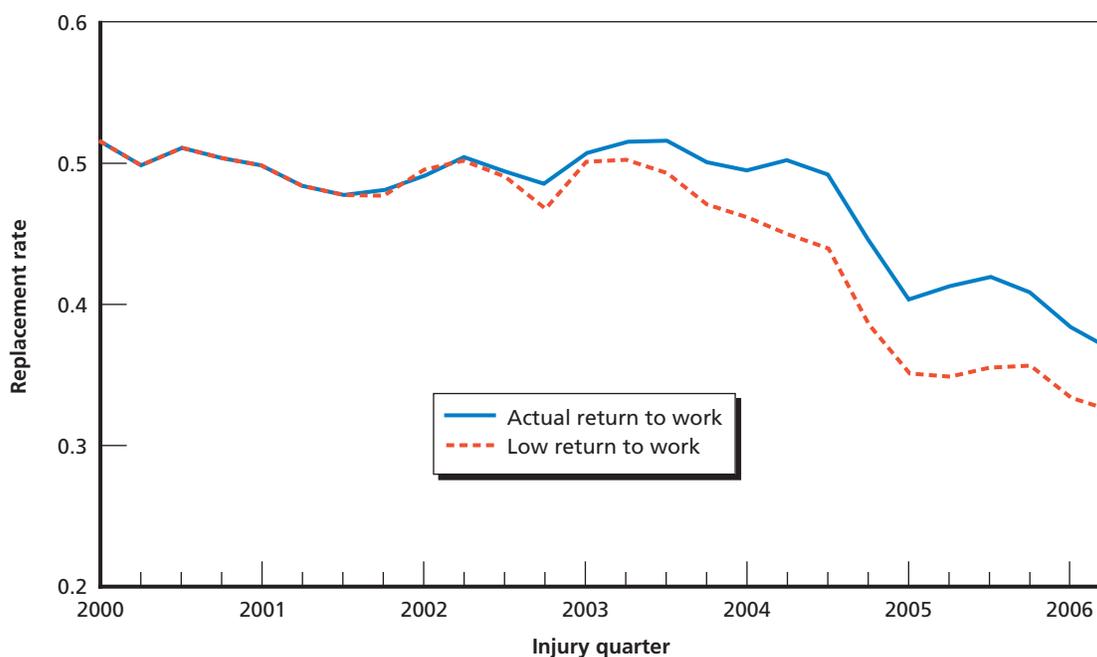


While the decline in income replacement was severe, the figure shows that it would have been even worse had return to work not improved. At the low return-to-work rate, the replacement rate fell to about 0.3 for the first quarter 2005 injuries and dipped below that for injuries in 2006. There is a consistent difference between the two series of about 5 percentage points from 2004 to 2006, suggesting that replacement rates were 20 percent higher than they would have been because of the improvements in return to work.

Figure S.6 reports the trend in simulated five-year replacement rates if we restrict the sample to only PD claims. The figure shows that, as we saw with the full set of claims, the replacement of lost income was very consistent prior to 2005. From first quarter 2000 through second quarter 2004, the replacement rate was very stable at close to 0.5. For injuries in 2005 and later, however, the replacement rate drops sharply to 0.4, and to 0.37 in second quarter 2006. This represents a decline of about 26 percent.

Again, as steep as the decline in income replacement was, the impact would have been even greater absent the improvements to return to work. Holding return to work fixed at the low level, replacement rates fell by as much as 6 percentage points more. On average, the improvements to return to work made the replacement rates about 15 percent higher than they would have been otherwise. In the monograph, we also compare replacement rates by injury severity and find that the biggest declines in replacement rates are experienced by workers with the most-severe injuries. This is not too surprising, given that these are the workers who are most affected by the changes to the PD benefits. But it does suggest that, even though they have the biggest improvements in return to work, the improvements are not enough to offset the declines in benefits.

Figure S.6
Simulated Replacement Rate of Lost Income Five Years After Injury, WCIRB Sample, Permanent-Disability Claims Only



While the adoption of the AMA Guides led to a sharp decline in average disability ratings of permanently disabled workers, there is some question as to what extent this decline will persist over time. It has been argued that PD ratings have been increasing over time due to the application of different standards of interpretation. We used data from the DEU for injuries from 2006 to 2009 to see whether there was an increase in disability ratings over time. In fact, we do find some evidence of an increase, with ratings rising at about 8–10 percent per year from 2007 to 2009. This offset about a third of the decline in the level of PD awards for which workers are eligible, with a decline of 40 percent from 2004 as opposed to the 60 percent that was observed immediately after adoption of the new schedule.

Conclusions

This monograph identifies several important trends in return to work for disabled workers in California over the past decade. Return-to-work outcomes improved considerably for workers injured from 2002 to 2005. Moreover, the biggest gains were experienced by workers with the most-severe injuries. We saw gains in overall employment and in employment for the at-injury employers. These trends were consistent across different data sets and specifications and for workers injured at different-sized firms. The trends also appear statistically significant when we control for other characteristics of individuals and their injuries and for economic conditions. Overall, the improvements in return to work represent a significant gain for disabled workers.

Our results do not pinpoint exactly why return to work improved so much. Our findings indicate that return to work was improving even before the SB 899 reforms were adopted. Workers injured in 2003 and 2004 were not eligible for the tiered benefit, so that is unlikely to be a driving factor behind the observed trend (though there is some evidence that the tiered benefit had an effect on a subset of employers). We also find that return to work improved relative to uninjured controls, so it was not due to other factors, such as improving labor markets. The timing of the trend suggests that changes to FEHA or the adoption of medical treatment guidelines could have had an effect.

The findings suggest that, despite the return-to-work gains observed, the adequacy of benefits has fallen since the adoption of the reforms. Indemnity benefits fell dramatically, and most of the decline was experienced by workers with permanent disabilities. The reforms also appear to have led to a decline in the fraction of workers who receive PD benefits. The decline in indemnity benefits led to a decline in the average replacement rate of lost income. Replacement rates fell about 26 percent, on average. The gains in return to work helped offset some of the declines, but not all. We estimate that, if return to work had stayed at its lowest point, replacement rates would have fallen 15 percent more than they ultimately did. We also found that the declines in replacement rates were experienced most profoundly by the most-severely disabled workers. This suggests that an increase in benefits would be necessary to return replacement rates to their previous levels and maintain the previously established adequacy level. In the monograph, we discuss how benefits could be improved while still maintaining incentives that promote return to work.

Our findings also suggest a need for further monitoring of the system and explorations for other methods to improve return to work. We find some evidence of increasing disability ratings over time, which could offset some of the decline in benefits discussed in this monograph. We also find that more work is needed to understand the trends in return to work, including

further exploration of the role of the medical treatment reforms. Finally, we would encourage a greater exploration of the potential gains from further integration of the occupational and non-occupational systems that affect return to work of disabled workers. In particular, the overlap between the California FEHA and the Americans with Disabilities Act (ADA) appear significant, and more work needs to be done to understand whether the return-to-work principles in these systems could be used to improve outcomes for workers' compensation claimants.