

Modifying Self-Insurer Assessments under the Second Injury Fund

Report to the Washington State Legislature
Pursuant to RCW 51.44.040

Washington State Department of Labor and Industries
December 2012

HIGHLIGHTS / EXECUTIVE SUMMARY

- In Washington State, the Second Injury Fund (SIF) has been used to offset benefit costs in three ways: 1) benefit costs for previously disabled workers; 2) preferred worker benefit costs; and 3) job modification costs. The Self-Insured SIF account pays all second injury costs attributable to Self-Insured claims.
- Prior to the changes set forth in Substitute Senate Bill (SSB) 5592 passed in 2005, all Self-Insurers contributed to the SIF based on the same assessment rate calculated each year by the Department of Labor and Industries (L&I). L&I used a formula that took into account only the projected total funding requirements and total claim payments for the next fiscal year. The 2005 bill revised the basis for assessing Self-Insurers for their share of SIF payments and mandates that beginning with assessments imposed on or after July 1, 2009, each Self-Insurer shall pay a SIF assessment based in part on their experience.
- SSB 5592 directed L&I to conduct an outcome study of the experience rating system established by the bill and to report the results to the legislature by December 1, 2012. The intent of this study is to evaluate the impact of the experience rating system using a number of measures. If the study shows a negative impact of 15% or more to affected workers following claim closure, the section of the bill pertaining to the experience rating of Self-Insured employers will expire on June 13, 2013.
- Two population-based groups were selected for the purpose of this study: Group 1 includes all the workers of Self-Insured employers whose claims were closed between July 1, 2002, and June 30, 2004; and Group 2 includes those whose claims were closed between July 1, 2009, and September 30, 2010.
- The comparison of the pre-injury wages with the post-closure wages for injured workers from the two selected groups shows that following claim closure, the workers in Group 2 earned about 81% of their pre-injury wages, compared to 75% of pre-injury wages for workers in Group 1. Therefore, no negative impact was observed on the earning power of the affected injured workers.
- The proportion of unemployed workers in Group 2 was little different to that in Group 1 in any quarter post claim closure, with the largest difference being only 2.9%.

- There has been a modest downward trend both in the number and in the percentage of pensions involving the use of SIF by Self-Insurers in recent years, a signal that the presence of the experience rating system may bring down the utilization of the SIF relief to a level that is reflective of the added costs of using this fund under the new rating system.
- The initial return to work rate of the injured workers in Group 2 was slightly lower than that in Group 1 at each selected time period following injury. However, none of these differences were greater than one percentage point. In addition, there was little difference between these groups in their sustained return-to-work outcomes.
- For the long-term disability claims, no significant changes were identified in the number of claims, the workers' post-injury earnings and their earnings at closure, and the percent of unemployed among the workers impacted by the legislation. Similarly, total permanent disability (TPD) or pension claims did not have a significant difference between Group 1 and 2.
- In conclusion, the experience rating system appears not to be associated with any significant impact on injured workers in terms of all the selected measures in this report. There is no evidence that the experience rating program would impose a negative impact of 15% or more on injured workers' wage recovery, employment outcomes, or determination of total permanent disability at or following claim closure.

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INTRODUCTION OF THE PASSED BILL

Substitute Senate Bill (SSB) 5992 (RCW 51.44.040) went into effect on July 24, 2005. This law revised the basis for assessing Self-Insurers for their share of Second Injury Fund (SIF) costs. Prior to the changes set forth under this legislation, all Self-Insurers contributed to the SIF based on the same assessment rate that was calculated each year by L&I using a simple formula that took into account only the projected total funding requirements and total claim payments for the next fiscal year. This flat-rate method did not provide incentives or penalties to individual Self-Insurers with regard to their use of the SIF as the cost of using this fund was socialized across all employers. SSB 5992 stated that beginning with assessments imposed on or after July 1, 2009, each Self-Insurer shall pay the SIF assessment that is experience rated for this insurer. The experience rating factor would give equal weight to two different ratios. The first ratio evaluates expenditures made by the SIF for claims of the Self-Insurer to the total expenditures made by the fund for claims of all Self-Insurers for the prior three fiscal years. The second, is the ratio of the Self-Insurer's total workers' compensation claim payments to the total workers' compensation claim payments made by all Self-Insurers for the prior three fiscal years.

The weighted average of these two ratios then would be divided by the second ratio to arrive at the experience factor.

This new experience rating system was expected to influence individual Self-Insurers' use of the SIF as their share of payments to the fund is dependent on their share of usage. As Self-Insurers who previously relied on SIF relief pay higher assessments based on their level of fund use, there was a question as to whether the system would discourage, or even deter, employers from awarding legitimate second injury pensions. The specific concern expressed by interested parties was whether injured workers may be forced to return to the labor force improperly and untimely, putting themselves at a competitive disadvantage in the job market and risking re-injury.

To address this issue, L&I was directed to conduct an outcome study of the experience rating system. To evaluate the impact of this rating system on the affected injured workers, L&I was required to conduct two comparisons of workers from two selected groups. The first measure compares the aggregate pre-injury wages to the wages at claim closure for all non-pensioned injured workers in each group. The second measure compares the proportion of non-pensioned

injured workers who are found able to work but have not returned to work in each group. If the study shows a negative impact of 15% or more to the affected workers following claim closure, the section of the bill pertaining to the experience rating of Self-Insured employers will expire on June 30, 2013.

L&I was also required to study whether the workers potentially impacted by the experience rating program have improved return-to-work outcomes, whether the number of impacted workers found to be employable increases, whether there is a change in long-term disability outcomes among the impacted workers, and whether the number of permanent total disability pensions among impacted workers is affected and, if so, the nature of the impact.

EVALUATION APPROACH AND DATA SELECTION PROCESS

In 2005, SSB 5992 specified that a number of studies should be conducted to evaluate the impact of the new experience rating system. Since then, the rules that regulate Self-Insurers have changed several times, some of which have affected the reliability and availability of data for certain variables needed to conduct these analyses. Due to these data limitations, some adjustments to the study questions were made to ensure the accuracy of the results. Specifically, the following questions were explored and answered in this report:

1. Has the earning power of injured workers been negatively affected by the experience rating program? If so, how significantly and how does this effect vary by characteristics of claims and claimants?
2. Since the experience rating system was established, has there been any change in the percent of workers who are unemployed after claim closure and how significant is this effect?
3. How has the experience rating program affected the number of permanent total disability pensions among impacted workers?
4. How has the experience rating program affected return-to-work (RTW) and sustained employment of injured workers?

5. Has the experience rating program affected the long-term disability outcomes among injured workers?

To evaluate the effect of the new experience rating system on these economic and employment outcomes, the legislature required that L&I select all the workers whose Self-Insured industrial insurance claims with temporary total disability benefits for more than 30 days were closed between July 1, 2002, and June 30, 2004, as the control group. By contrast, all the workers of Self-Insured employers with similar claims closed between July 1, 2009, and September 30, 2010, were selected as the treatment group.¹ L&I was required to compare the outcomes of these two groups on two specific measures in order to evaluate the impact of the experience rating program on injured workers.

The claim related data was obtained from L&I's internal data warehouse. The quarterly wage records were originally collected by the Employment Security Department (ESD). As of March, 2012, when the data was last pulled, the wage records were available from the first quarter of 1993 through the third quarter of 2011. Given this, we have at least one year of pre-injury wage records for the oldest claims and one year of post-closure wages for the most recently closed claims. This wage dataset was matched to the claim data extracted from L&I's data warehouse. To improve the accuracy and reliability of the analytical results in this report, the following treatments were applied to the original data collected from the data warehouse.

1. **Claim liability and determination filters:** Only Self-Insured claims were selected in this study; we also excluded any rejected or undetermined Self-Insured claims.
2. **Time-loss (TL) duration filter:** As stated in the bill, only the claims with time-loss days greater than 30 days were selected.
3. **Closure date filter:** Claims with first closure date between July 1, 2002, and June 30, 2004, were selected as Group 1 and claims with first closure date between July 1, 2009, and September 30, 2010, were selected as Group 2. The first closure date was used as a measure to control for the effect of multiple closure dates for claims in Group 1, which may not be the case for most claims in Group 2.

¹ We capped the closure date of the treatment group prior to the last quarter of 2010, instead of the second quarter of 2011 stated in the bill, in order to obtain sufficient employment and wage data for comparison purpose. This was necessary in order to meet the report deadline.

4. **Pension filter:** Only the pensions that were awarded within 15 months after the first closure date were excluded. This ensures that claims in both groups were given the same amount of time to develop into pensions; however, this meant that any pension awarded at closure, was excluded from the group. As a result, we excluded 39 pensions from Group 1 and 24 pensions from Group 2.
5. **Injury date filter:** Claims with an injury date prior to 1994 were excluded due to the lack of the matching wage data for these claims.
6. **Wage filter:** A total of 232 records with no wages in any of the four quarters prior to injury or the injury quarter were removed. It is likely these records were for workers that were outside of Washington's unemployment insurance coverage when injured. Given that their pre-injury wages as defined for this study were not available, it was inappropriate and infeasible to use the records for these workers in the analysis of wage losses due to injuries.
7. **Outlier or data errors:** 15 claims from Group 1 and 5 claims from Group 2, which met one of the following criteria: TL > 5,000 or age-at-injury > 120 or wage at any quarter > \$250,000, were removed.

The final data includes a total of 13,172 records for Group 1 and 6,466 records for Group 2. Table 1 breaks down the total claims by various characteristics. The distribution of the claims by age-at-injury shows a relatively higher proportion of workers between the ages of 35 and 44 but significantly lower proportion of workers aged 55-64 in Group 1 than Group 2. There is a higher percentage of "other body part" claims in Group 2, compared to Group 1. However, these two groups follow a very similar pattern in terms of distribution across all six L&I designated regions.

Table 1. The distribution of the claims by various characteristics

Category	Group 1	Group 2	All claims
Age at injury			
<i>24 and below</i>	4.3%	3.7%	4.1%
<i>25-34</i>	14.7%	12.9%	14.1%
<i>35-44</i>	32.4%	23.0%	29.3%
<i>45-54</i>	32.6%	35.1%	33.4%
<i>55-64</i>	14.2%	21.8%	16.7%
<i>65 and above</i>	1.5%	3.1%	2.0%
<i>Unidentified</i>	0.4%	0.4%	0.4%
Risk Class			
<i>Aircraft Manufacturing</i>	15.7%	9.4%	13.6%
<i>Hospitals, N.O.C.</i>	10.4%	12.0%	11.0%
<i>Supermarkets</i>	6.8%	6.5%	6.7%
<i>Schools, Churches and Day Care-All Other Staff</i>	5.6%	7.3%	6.2%
<i>County and Tribal Councils-All Other Employees</i>	5.1%	7.0%	5.7%
<i>Department Stores</i>	3.8%	4.0%	3.9%
<i>Parcel and Package Delivery Service</i>	3.8%	3.7%	3.8%
<i>Cities - All Other Employees, N.O.C.</i>	3.6%	3.3%	3.5%
<i>Schools, Churches and Day Car -Prof./Clerical Staff</i>	2.4%	3.9%	2.9%
<i>Trucking, N.O.C.</i>	2.3%	2.2%	2.3%
<i>All Others</i>	40.4%	40.6%	40.5%
Region			
<i>Region 1</i>	18.3%	18.9%	18.5%
<i>Region 2</i>	28.4%	27.7%	28.2%
<i>Region 3</i>	19.3%	20.2%	19.6%
<i>Region 4</i>	10.6%	10.2%	10.5%
<i>Region 5</i>	9.5%	10.6%	9.9%
<i>Region 6</i>	7.4%	7.2%	7.3%
<i>All Others</i>	6.5%	5.2%	6.1%
Injured Body Part			
<i>Trunk</i>	38.0%	35.6%	37.2%
<i>Upper Extremities</i>	22.7%	18.8%	21.4%
<i>Lower Extremities</i>	19.3%	19.5%	19.4%
<i>Multiple Body Parts</i>	11.9%	13.0%	12.3%
<i>Other Body Parts</i>	2.1%	7.9%	4.0%
<i>Neck</i>	2.1%	1.1%	1.8%
<i>Head</i>	1.0%	0.9%	1.0%
<i>Body Systems</i>	0.2%	0.3%	0.2%
<i>Unidentified</i>	2.7%	2.8%	2.7%

FINDINGS

This section contains the results of the studies designed to evaluate the impact of the experience rating system on the injured workers, using all the selected measures. More supplemental information can be found in the appendix at the end of this report.

1. Impact of experience rating system on the earning power of injured workers

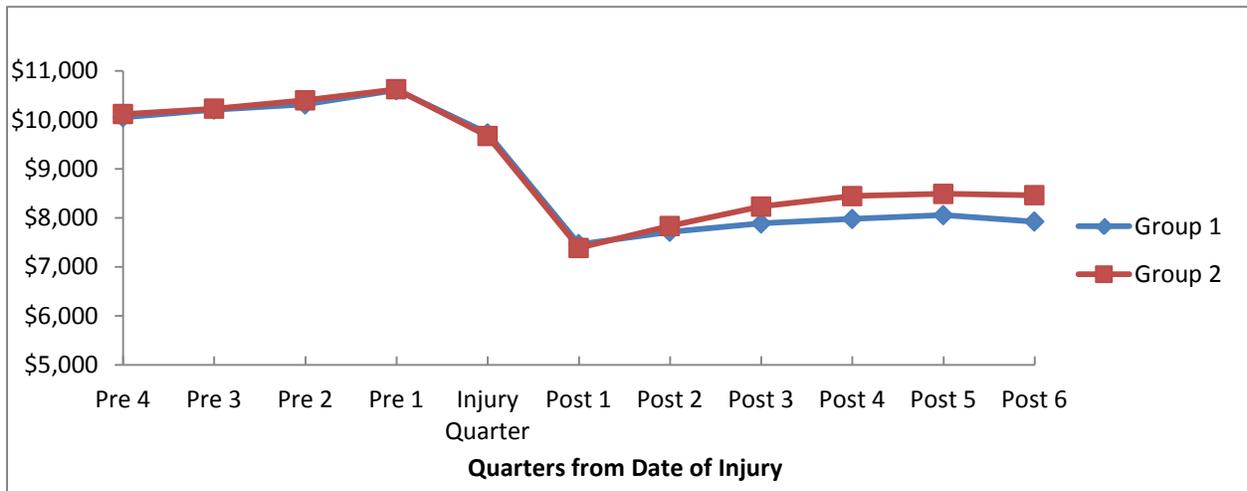
The first study required by the legislation is to evaluate the effect of the experience rating system on the earnings of injured workers, which includes the comparison of the pre-injury wages with the wages at claim closure for injured workers from the two selected study groups. To control for the effect of inflation over the entire study period, all the wages were adjusted by the annual average Consumer Price Index (CPI) that represents changes in prices of all goods and services purchased for consumption by urban households.²

Figure 1 presents four quarters of average pre-injury wages and six quarters of average post-injury wages for each group.³ There was little difference in the wages in any quarter prior to injury for these two groups, with a very narrow range of \$19-86 differentiating the groups. For the workers in each group, there was a moderate upward trend in their wages prior to the injury quarter, with the average wage peaking in the quarter prior to injury at \$10,611 for Group 1 and \$10,625 for Group 2. The wages in the injury quarter and the next quarter plunged for both groups, down to the lowest levels of \$7,462 and \$7,386 respectively. The wage discrepancy between these groups became increasingly noticeable at two quarters following injury. The inflation-adjusted average wage for the workers in Group 2 was \$8,463 in the sixth quarter following injury, approximately \$540 more than those in Group 1.

² This non-seasonally adjusted annual CPI index is provided by the Bureau of Labor Statistics: <http://data.bls.gov/cgi-bin/cpicalc.pl>

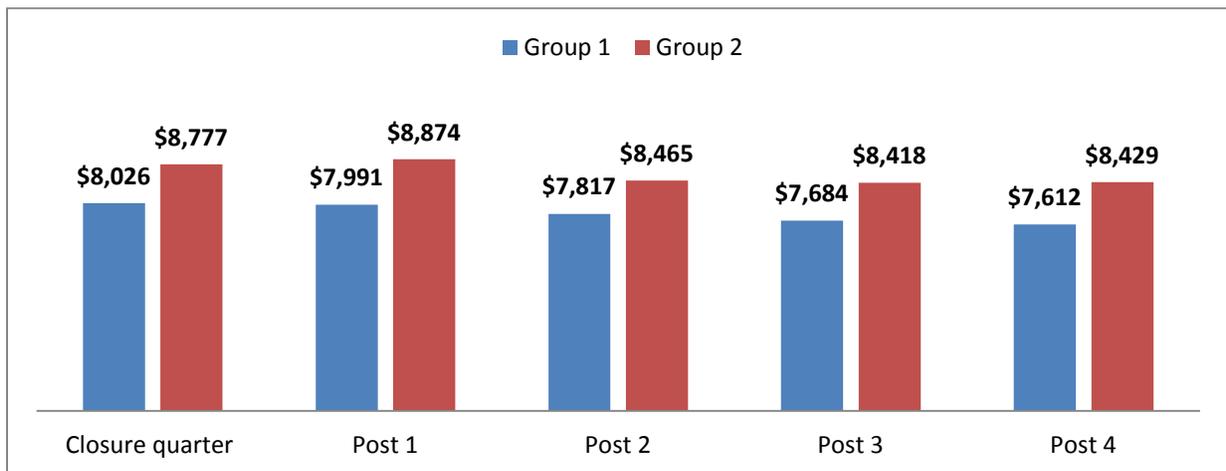
³ Zero wages were included in the calculation of these average numbers.

Figure 1. Average pre-injury and post-injury wages by each quarter



The comparison of post-closure wages is captured in Figure 2. In each of these five quarters, Group 2 has a constantly higher average wage than Group 1, with the largest difference of \$883 in the first quarter following claim closure and the smallest one of \$648 in the second quarter following the closure.

Figure 2. Average post-closure wages by each quarter



When comparing the ratios of post-closure and post-injury wages to pre-injury wages for these groups, the workers in Group 2 fared slightly better than their counterparts in Group 1. Upon the closure of their claims, the workers in Group 2 earned 81.5% of their pre-injury wages while

those in Group 1 earned about 75% of their pre-injury wages. The post-injury to pre-injury wage ratios were very close for both groups at around 70%.

Table 2. Pre-injury, post-injury, and post-closure wages and the wage ratios

Category	Group 1	Group 2	All claims
Mean pre-injury wage	\$11,122	\$11,132	\$11,125
Mean post-injury wage	\$7,761	\$7,975	\$7,832
Mean post-closure wage	\$8,375	\$9,069	\$8,603
Post-closure wage / pre-injury wage ⁴	75.3%	81.5%	77.3%
Post-injury / Pre-injury wage	69.8%	71.6%	70.4%

2. Impact of experience rating system on the employment outcomes of injured workers

The second study required by the legislation is to evaluate whether the experience rating system had a negative impact on the employability and return-to-work outcomes of the affected injured workers. To determine this, the legislature directed L&I to compare the proportion of injured workers who are found able to work but have not returned to work for both groups, as captured in the Employability Assessment Reports (EAR) by Self-Insurers.

At the time SSB 5992 was passed in 2005, all Self-Insurers were required to submit the EAR to L&I when they had paid 90 continuous days of time-loss. However, beginning in April 1, 2006, this “90-day rule” was repealed in response to concerns from the Self-Insured community that the reporting requirement was an unnecessary administrative burden. As a result, L&I adopted a new rule, stating that no such report was required when the workers returned or were released to work at the job of injury. The new rule inadvertently invalidated the EARs as a data source for the indicators needed in this study, in that by exempting the employers whose workers returned to work at the same job from submitting the EARs, L&I was only able to document a small fraction, generally around 20% by historical data, of the total number of workers who actually returned to employment. By the same token, the data about the number of workers who were

⁴ The breakdown comparisons of the post-closure wages to pre-injury wages by various characteristics of claims and claimants are available in the tables and figures in the appendix of this report.

employable but had not returned to work was only partially available to L&I when those who were released to the same job were no longer reported by the employers.

Table B-2 in the appendix shows that since the second half of 2006, EARs are no longer a source for tracking the actual number of workers who returned to work or who are found able to work. Prior to the rule change in 2006, the number of total received and approved EARs, the number of workers who returned to work, the number of workers who returned to the same jobs with the same employers, and the number of workers who were employable but had not returned to work were all at very consistent levels and showed little fluctuation over time. Since then, the number of EARs that L&I received has dropped dramatically. As the vast majority of the workers in Group 2 were injured after April 2006 and their RTW/employability status was not reported when they returned or were released to the same job, an accurate number of workers who returned to work and workers who were employable for this group cannot be obtained making the comparison required by the bill infeasible.

While we are unable to provide the exact comparison requested, the wage data from ESD provides some useful information, so a similar analysis can be performed. Specifically, we can compare the percent of unemployed workers within a certain time period after the claims were closed for both groups and use this measure as a proxy to study whether the experience rating system has had a negative impact on the employment of injured workers. Table 3 presents the results that indicate the proportion of unemployed workers in Group 2 at each time period was slightly lower than that in Group 1 for all claims with time-loss greater than 30 days. If we exclude the claims with shorter time-loss days (30-90), the proportion of unemployed in Group 2 became slightly higher than Group 1 in the third quarter post-claim closure and beyond. Given the information shown in this table, along with the fact that the workers in Group 2 were returning to work during a tough post-Great Recession labor market, it is unlikely the experience rating system has had any significant negative impact on the employment of injured workers.

Table 3. Percent of unemployed workers after claims were closed

Time Period	Time-Loss >30			Time-Loss >90		
	Group 1	Group 2	All claims	Group 1	Group 2	All claims
In the closure quarter	22.4%	19.6%	21.5%	32.2%	29.3%	31.3%
In the 1st quarter post closure	23.7%	21.5%	23.0%	32.7%	30.8%	32.1%
In the 2nd quarter post closure	24.5%	23.5%	24.2%	33.2%	32.7%	33.0%
In the 3rd quarter post closure	25.3%	25.0%	25.2%	33.7%	34.2%	33.8%
In the 4th quarter post closure	26.4%	26.2%	26.4%	34.1%	35.0%	34.4%

3. Impact of experience rating system on the permanent total disability pensions

L&I was also required by the legislation to study whether the number of permanent total disability pensions among impacted workers was affected and, if so, the nature of the impact. The concern was that fewer permanent total disability pensions would be requested by Self-Insurers since an employer's SIF assessment is now directly influenced by their utilization of the fund, and the SIF's greatest usage is to offset pension costs.

Table 4 includes the breakdown of time series data for Self-Insured pensions by different funding sources. Prior to 1989, pensions covered by the SIF on average only accounted for approximately 41% of the total pensions awarded to workers in the self-insurance community. This ratio steadily increased to its peak of 91.33% in fiscal year 1999. In terms of the total number of pensions with SIF relief, it reached a peak of 289 pensions in 2004. The most recent three years have seen a modest downward trend, both in the number and in the percentage of pensions involving the use of SIF by Self-Insurers. This is consistent with the presumption that the experience rating system would reduce utilization of the SIF. It remains to be seen, however, whether this trend will continue in the long run.

Similarly, Table 5 shows that total permanent disability (TPD) or pension claims did not have a significant difference between Group 1 and 2.

Table 4. Self-Insured pensions funded by various sources

Fiscal Year	Number of pensions funded by bonds	Number of pensions funded by cash	Number of pensions funded by SIF	Percent of pensions with SIF usage
≤1988	160	173	231	40.96%
1989	14	23	98	72.59%
1990	21	17	96	71.64%
1991	16	23	114	74.51%
1992	21	19	94	70.15%
1993	19	22	141	77.47%
1994	11	10	138	86.79%
1995	15	14	147	83.52%
1996	8	15	132	85.16%
1997	11	10	191	90.09%
1998	13	9	200	90.09%
1999	8	9	179	91.33%
2000	16	6	158	87.78%
2001	14	17	184	85.58%
2002	13	17	231	88.51%
2003	9	21	239	88.85%
2004	11	17	289	91.17%
2005	21	21	237	84.95%
2006	10	23	256	88.58%
2007	12	27	258	86.87%
2008	10	16	205	88.74%
2009	14	38	178	77.39%
2010	11	27	168	81.55%
2011	13	25	193	83.55%

Source: Data pulled as of April 16, 2012, from Data Warehouse, Department of Labor and Industries.

Excluding: 1) fatal pension claims; and 2) pensions with unknown funding sources.

Table 5: Change total Self-Insured Pensions Awarded

Time Period	Group 1	Group 2
Total Claims	13,172	6,466
Pensions Awarded within 15 months of closure	39	24
Total Claims	13,211	6,490
Percent of SI closures that were Pensions (TPD)	0.30%	0.37%

Conclusion: based on the evaluation of the two study groups, the experience rating did not result in a decrease in the percent of closure that were pensions.

4. Impact of experience rating system on return-to-work (RTW) and sustainability of employment of injured workers

Another study of the effect of the experience rating program is whether and how it would impact return-to-work outcomes of injured workers. While it is important for injured workers to return to employment as soon as they can after an injury, it is also important that they stay employed after the initial return. In light of this, two measures of return-to-work outcomes were used to evaluate the impact of the rating system on injured workers. The first one is the initial return-to-work rate defined as the percent of injured workers back at work for the first time after their injuries. The second is the sustained return-to-work rate defined as the percent of workers who had sustained employment after their injuries.

Table 6 shows that compared to the injured workers with claims closed before the experience rating program was in place, those impacted by the program returned to work at a slightly lower rate initially at each selected time period following injury. However, none of these differences were significant as they were all smaller than one percentage point. Similarly, there was almost no difference between these groups in the sustained return-to-work rate, with the largest difference at only 0.3 percentage point. As mentioned earlier, if we take into account the fact that the workers in Group 2 returned to a tough labor market after the Great Recession, it is reasonable to conclude that the slightly unfavorable findings presented in Table 6 are likely a result of factors other than the implementation of the experience rating.

Table 6. Initial and Sustained RTW rates after injury

Time Period	Initial RTW			Sustained RTW		
	Group 1	Group 2	All claims	Group 1	Group 2	All claims
within 3 months post injury	88.9%	88.6%	88.8%	68.0%	68.3%	68.1%
within 6 months post injury	93.7%	93.1%	93.5%	71.4%	71.3%	71.4%
within 9 months post injury	95.3%	94.9%	95.1%	72.4%	72.2%	72.4%
within 12 months post injury	96.1%	95.8%	96.0%	72.9%	72.6%	72.8%
within 15 months post injury	96.7%	96.1%	96.5%			
within 18 months post injury	97.1%	96.4%	96.9%			

Note: 1) Claims with time-loss of 90 days or more. 2) The Sustained RTWs within 15 months post-injury and beyond were not calculated because of the unavailability of the data for Group 2.

5. Impact of experience rating system on the long-term disability (LTD) outcomes

Long-term disability claims are commonly used to describe those where the injured worker is receiving time-loss payments 120 days after the date of injury. These claims are usually associated with significantly higher costs and have more potential to become pensions.

Therefore, it is worth analyzing them separately.

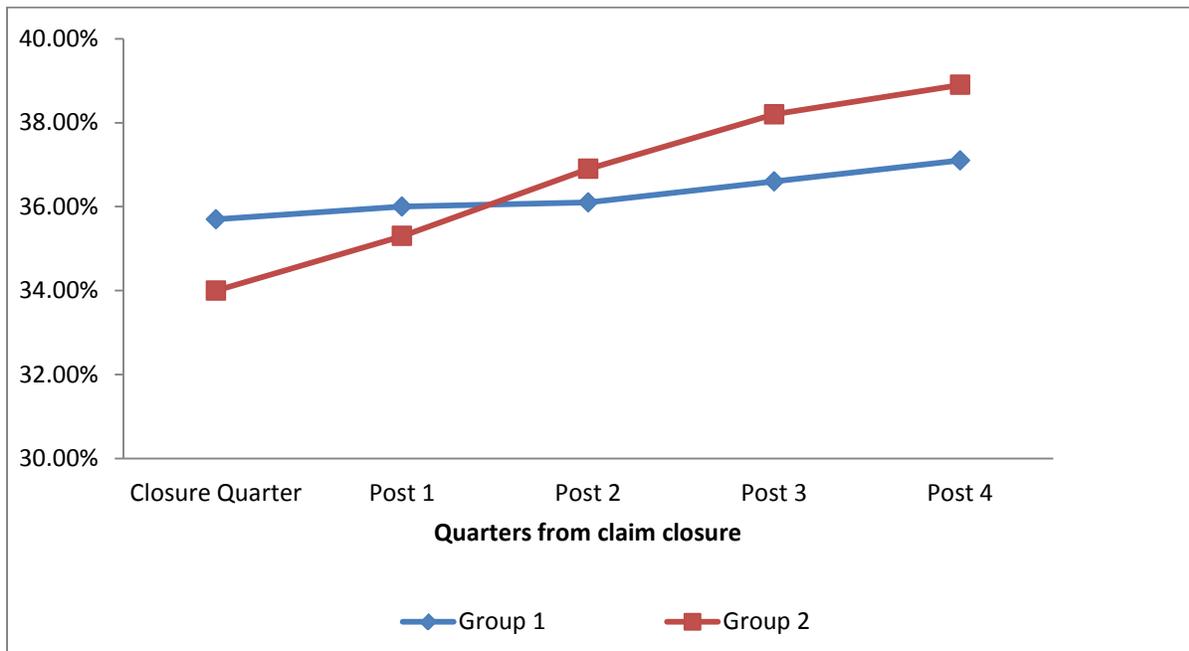
Table 7 summarizes the difference of these claims between the two groups using the selected measures below. The proportion of long-term disability claims was slightly lower at around 40% for Group 2, compared to 42% in Group 1. The ratio of post-injury to pre-injury wages was essentially the same at 53.6% for both groups, while the injured workers in Group 2 experienced more favorable wage recoveries than Group 1 after claim closure.

Table 7. Long-term disability outcomes

Measure of outcomes	Group 1	Group 2	All claims
Number of LTD as percent of total population	41.9%	40.0%	41.3%
Post-injury earnings as a percent of pre-injury wages	53.57%	53.59%	53.58%
Post-closure earnings as a percent of pre-injury wages	60.93%	67.46%	62.99%

The matched claim and wage data can be used to evaluate whether the experience rating system has had a negative impact on the employment of injured workers with long-term disability claims. Figure 3 illustrates the differences in the percent of workers that were unemployed at certain time after their claims were closed for both groups. For the claims in Group 1, the percent unemployed was fairly stable at around 36-37% throughout the entire observed period after claims were closed. In contrast, there was an upward trend for the workers in Group 2 in the same time span. The intergroup comparison indicates the percent of unemployed workers in Group 2 was slightly lower in the first two quarters but higher afterwards. However, at no time was the difference between these groups larger than two percentage points.

Figure 3. Percent of unemployed workers after claims were closed for LTD claims



CONCLUSIONS

The experience rating system is not associated with a negative impact of 15% or more on injured workers in terms of their earning power and employment outcomes following claim closure. Additionally, the impact of experience rating on the sustainability of employment, the number and share of permanent total disability pensions, and the long-term disability outcomes were all examined and none of our findings on these measures point to a significant impact.

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APPENDIX A: DEFINITIONS OF KEY VARIABLES

- ***Second Injury Fund:*** State Fund and Self-Insured claims have separate second injury funds: for State Fund claims, money is reserved to pay all claims costs for preferred workers up to three years after hiring and to pay (when a claim results from a combination of a pre-existing and a new injury) claims costs not directly related to the new or second injury. The employer's experience record is charged only with costs directly related to the new injury. For Self-Insured claims, money is collected from all Self-Insured employers to cover pension costs for Self-Insured claimants, while the benefits costs of the new injury are paid by the individual employer.
- ***Long-Term Disability:*** Commonly used to describe claims on which the injured worker is receiving time-loss payments 120 days after the date of injury.
- ***Pre-Injury Wage:*** The computed wage that is equal to the average of earnings in the two quarters prior to injury, or the earnings in the quarter prior to injury, whichever is greater.
- ***Post-Injury Wage:*** The average of earnings in the four quarters following injury.
- ***Post-Closure Wage:*** The computed wage that is equal to the average of earnings in the two quarters following claim closure, or the earnings in the second quarter following claim closure, whichever is greater.
- ***Initial Return-to-Work:*** A time period during which an injured worker goes back at work for the first time after injury.
- ***Sustained Return-to-Work:*** A time period during which an injured worker returns and stays employed for three or more consecutive quarters after injury.
- ***Employability Assessment Report (EAR):*** A report that under certain circumstances, Self-Insurers are required to submit, within a certain period of time, to the Department of Labor and Industries indicating whether the claimant is eligible for vocational rehabilitation services, and if not eligible, the reason for this determination. There have been some rule changes with regard to the EAR reporting requirement for employers since 2006 and the EAR was replaced by the Self-Insurance Vocational Reporting Form (SIVRF) in March, 2008.

APPENDIX B: SUPPLEMENTAL TABLES AND FIGURES

Table B-1. The history of the rule changes affecting the availability of the EAR data

Time period	Reporting requirement as stated in the WAC	Implication
Prior to April 1, 2006	<p>WAC 296-15-510 <i>What is the process used for vocational rehabilitation with regard to Self-Insured employers?</i></p> <p><i>No later than paying ninety continuous days of time loss following the initial filing or reopening of a claim, the Self-Insurer shall notify the self-insurance section as to whether or not vocational rehabilitation services are necessary and likely to enable the injured worker to become employable at gainful employment.</i></p>	Self-Insurers were required to report either a vocational referral or an EAR to L&I when they had paid 90 continuous days of time loss, regarding whether or not voc services would be necessary. So for all claims with more than 90 continuous days of time loss, the data is available
Prior to March 31, 2008	<p>WAC 296-15-430 <i>When must a Self-Insurer submit an Employability Assessment Report (EAR) to the department?</i></p> <p><i>(a) Within five working days of the date time loss benefits are terminated because the worker is not eligible for vocational services.</i></p> <p><i>Note: An EAR is not required if the worker is not eligible for vocational services because they returned or were released to work at the job at time of injury.</i></p> <p><i>(b) Within five working days of when the Self-Insurer finds the worker eligible for voc services.</i></p>	The vast majority of data was lost due to the exemption of reporting requirement specified in this rule.
Since March 31, 2008	<p>WAC 296-15-4302 <i>What is the Self-Insurance Vocational Reporting Form (SIVRF)?</i></p> <p><i>The SIVRF replaces the EAR and is used as a cover sheet for all vocational reports submitted to the department by the Self-Insured employer.</i></p> <p><i>Note: A SIVRF is not required if the worker is not eligible for vocational services because they returned or were released to work at the job at the time of injury or on the date of disease manifestation.</i></p>	The vast majority of data was lost due to the exemption of reporting requirement specified in this rule.

Table B-2. The historical data on SI claims and EARs: 2002-2011

Date of Closure	Total Claims ⁵	Total selected EARs ⁶	Ratio to total claims	Total RTWs	Ratio to total claims	RTW to same job with same employer	Ratio to total claims	Employ-able but not RTW	Ratio to total claims
2002Q1-Q2	1892	1416	74.84%	907	47.94%	700	37.00%	456	24.10%
2002Q3-Q4	1618	1186	73.30%	700	43.26%	521	32.20%	433	26.76%
2003Q1-Q2	1964	1439	73.27%	790	40.22%	614	31.26%	596	30.35%
2003Q3-Q4	1810	1357	74.97%	789	43.59%	646	35.69%	510	28.18%
2004Q1-Q2	1849	1377	74.47%	879	47.54%	727	39.32%	441	23.85%
2004Q3-Q4	1960	1422	72.55%	893	45.56%	757	38.62%	470	23.98%
2005Q1-Q2	1790	1303	72.79%	831	46.42%	699	39.05%	412	23.02%
2005Q3-Q4	1625	1198	73.72%	780	48.00%	652	40.12%	363	22.34%
2006Q1-Q2	1693	1201	70.94%	838	49.50%	708	41.82%	310	18.31%
2006Q3-Q4	1541	962	62.43%	637	41.34%	535	34.72%	282	18.30%
2007Q1-Q2	1669	828	49.61%	537	32.17%	428	25.64%	256	15.34%
2007Q3-Q4	1443	492	34.10%	271	18.78%	171	11.85%	193	13.37%
2008Q1-Q2	1447	403	27.85%	174	12.02%	101	6.98%	197	13.61%
2008Q3-Q4	1409	320	22.71%	144	10.22%	73	5.18%	157	11.14%
2009Q1-Q2	1576	292	18.53%	120	7.61%	51	3.24%	153	9.71%
2009Q3-Q4	1480	293	19.80%	104	7.03%	42	2.84%	165	11.15%
2010Q1-Q2	1267	220	17.36%	65	5.13%	24	1.89%	143	11.29%
2010Q3-Q4	1341	265	19.76%	69	5.15%	17	1.27%	173	12.90%
2011Q1-Q2	1243	201	16.17%	78	6.28%	22	1.77%	114	9.17%
2011Q3-Q4	1272	241	18.95%	83	6.53%	18	1.42%	148	11.64%

⁵ These are the total number of approved Self-insurance claims with time loss days greater or equal to 90.

⁶ Excluding all EARs that 1). with pending or disapproved decisions; 2). with approval date later than claim closure date; 3) representing the second and subsequent EARs in multiple EAR cases; 4). eligible for vocational services.

Table B-3. Washington state unemployment rate 2002-2011

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2002	7.4	7.5	7.5	7.5	7.5	7.4	7.3	7.2	7.2	7.2	7.2	7.2
2003	7.3	7.4	7.5	7.6	7.6	7.7	7.6	7.6	7.4	7.3	7.1	7.0
2004	6.8	6.7	6.5	6.4	6.3	6.2	6.1	6.1	6.0	6.0	5.9	5.8
2005	5.7	5.7	5.6	5.6	5.5	5.5	5.6	5.6	5.5	5.4	5.3	5.1
2006	5.0	4.9	4.8	4.9	5.0	5.1	5.1	5.1	5.0	5.0	4.9	4.8
2007	4.6	4.5	4.4	4.4	4.4	4.5	4.6	4.6	4.6	4.6	4.6	4.6
2008	4.6	4.6	4.7	4.8	5.0	5.2	5.4	5.6	5.8	6.1	6.5	7.1
2009	7.7	8.3	8.8	9.2	9.4	9.6	9.7	9.7	9.8	9.9	10.0	10.2
2010	10.2	10.2	10.2	10.1	9.9	9.8	9.8	9.8	9.8	9.8	9.7	9.7
2011	9.6	9.5	9.4	9.3	9.3	9.3	9.3	9.2	9.0	8.9	8.7	8.6

Figure B-1. Post-closure wage as percent of pre-injury wage by time-loss duration

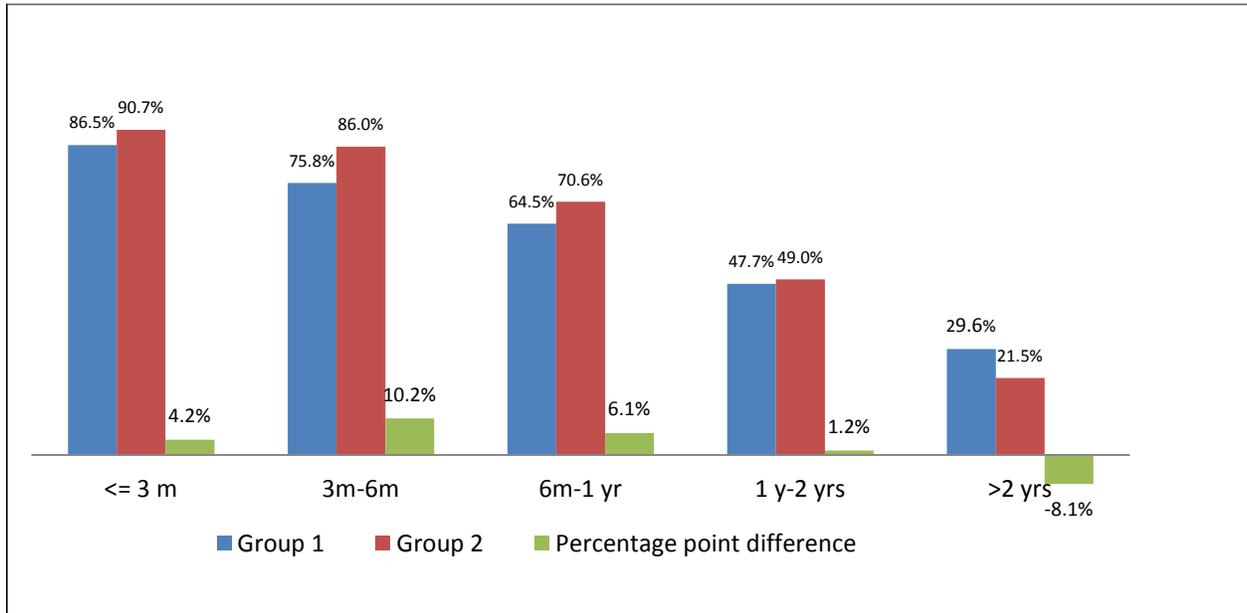


Figure B-2. Post-closure wage as percent of pre-injury wage by age

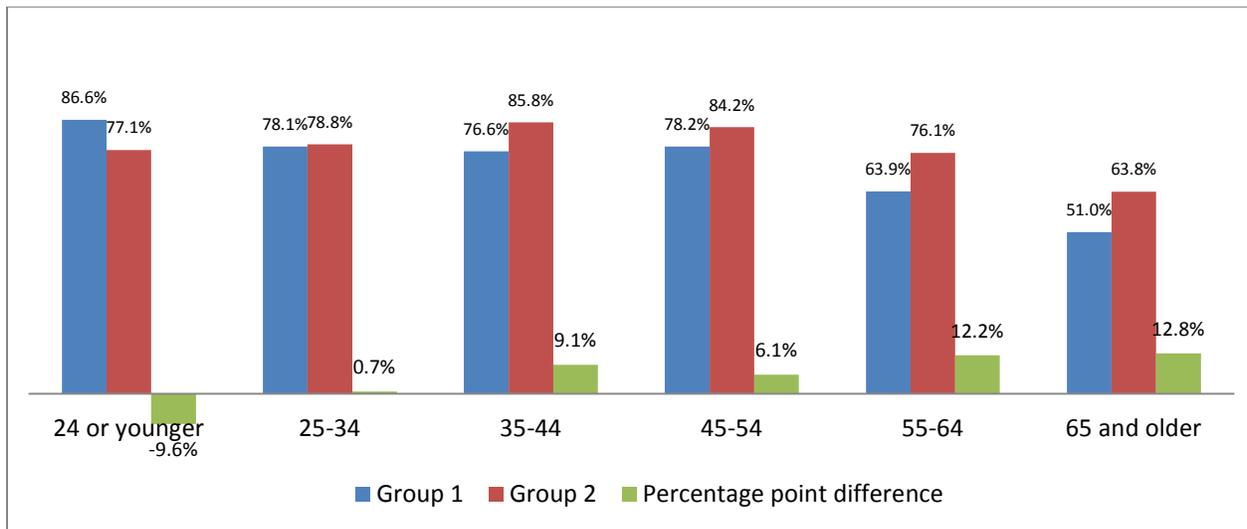


Figure B-3. Post-closure wage as percent of pre-injury wage by risk class

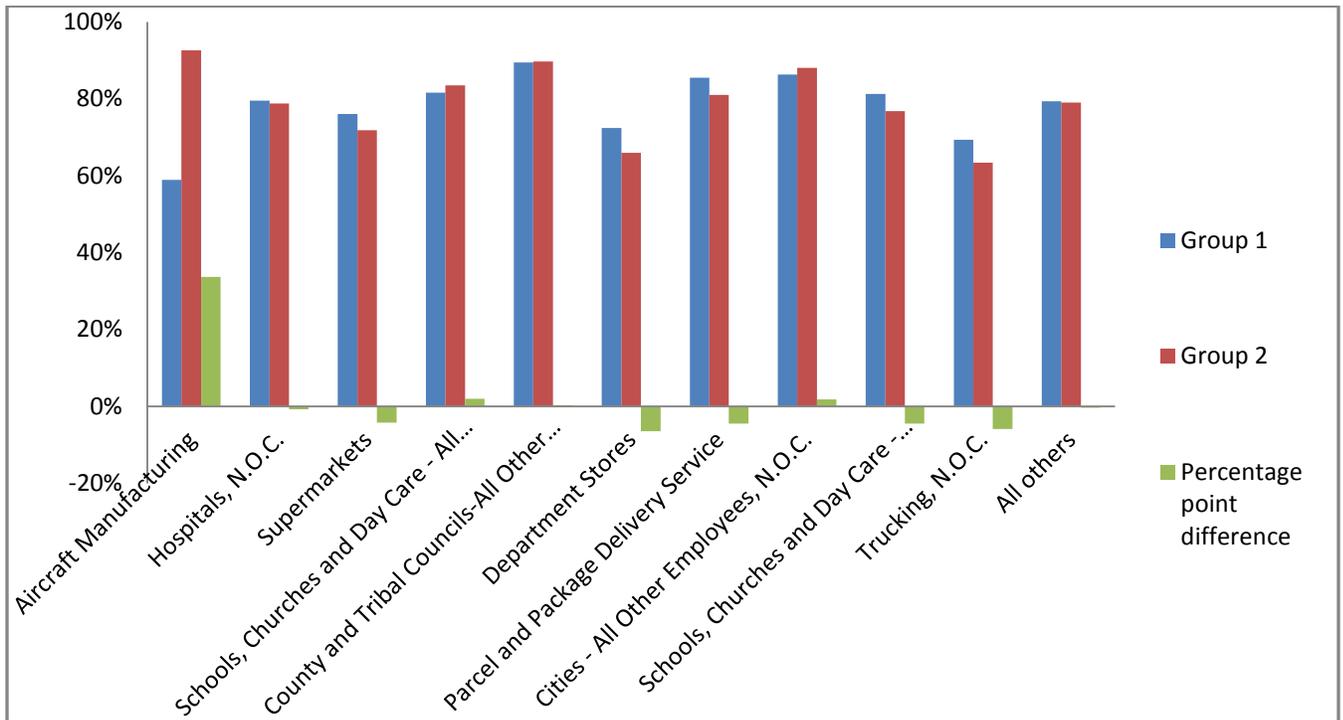


Figure B-4. Post-closure wage as percent of pre-injury wage by injured body-part

