

## Report on the Standard Exception Study

Excerpt from the WCIRB Classification and Rating Committee Minutes  
September 22, 2021

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## Standard Exception Study

**4512, Biomedical Research Laboratories – including outside operations**  
**8810, Clerical Office Employees – N.O.C**  
**8742, Salespersons – Outside**

### Executive Summary

#### Objectives

Most classifications allow an employer's clerical or outside sales employees' payroll to be separately assigned to Classification 8810, *Clerical Office Employees*, Classification 8742, *Salespersons – Outside*, or, beginning in 2021, Classification 8871, *Clerical Telecommuter Employees*, pursuant to the Standard Exceptions rule. Other classifications are structured to explicitly include clerical office, clerical telecommuter or outside sales operations when the employees' exposures to work-related hazards are relatively similar to those of the core classification and it is difficult to clearly distinguish an employer's primary operations from those that would otherwise be considered clerical or outside sales in nature.

As it is often challenging to determine whether individual employees meet the narrowly defined criteria for Standard Exception Employees, the WCIRB has undertaken a multi-year effort to systematically review classifications to identify those that would be improved by the inclusion of clerical office, clerical telecommuter or outside sales activities. As part of this effort, in 2021, the WCIRB completed a pilot study to establish a framework for the systematic review of other classifications in subsequent years.

The WCIRB selected Classification 4512, *Biomedical Research Laboratories – including outside operations*, for the pilot study and evaluated the business operations and the payroll and claim experience of employers currently assigned to Classification 4512 to determine if their clerical or outside sales operations are distinct and easily identifiable or if some or all of the standard exception operations should be included in Classification 4512.

#### Findings

The key findings of this study include:

1. Operations of biomedical research laboratories assigned to Classification 4512 often involve both laboratory work and non-laboratory research work, and the latter is typically clerical in nature. Further, the line of demarcation between employees engaged exclusively in clerical operations and those performing biomedical research operations is not always clear.
2. The clerical operations of biomedical research laboratories (Classification 8810 subgroup) have better loss to payroll experience than the statewide experience of Classification 8810, mostly driven by a lower indemnity claim frequency. The typical causes of injury and indemnity claim severity for the Classification 8810 subgroup are more similar to those of Classification 4512 than to Classification 8810 as a whole.
3. Including clerical employees in Classification 4512 would lead to a drop (-28.7%) in classification relativity for Classification 4512. In accordance with standard WCIRB classification ratemaking procedures, the relativity changes would be limited to a 25% decrease. The classification relativity for the statewide Classification 8810 would increase by 5.0% after removing the Classification 8810 subgroup from the statewide Classification 8810 experience.
4. The portion of biomedical research laboratories' payroll assigned to Classification 8742 varies widely across the industry, ranging from about 20% of employers having no reported payroll in Classification 8742 to some employers having 8742 account for more than 80% of their total reported payroll. Further, the Classification 8742 experience in connection with laboratories (Classification 8742 subgroup) had a significantly lower loss to payroll ratio than Classification 4512, and a disproportionately higher share of the losses caused by motor vehicle accidents when

compared to Classification 4512. Therefore, the business operations and loss experience of outside salespersons at biomedical research laboratories are different from those of Classification 4512 operations.

## **Recommendations**

Based on these findings, the WCIRB recommends amending Classification 4512, *Biomedical Research Laboratories – including outside operations*, to include Clerical Office Employees and Clerical Telecommuter Employees as defined in Part 3, *Standard Classification System*, Section III, *General Classification Procedures*, Rule 4, *Standard Exceptions*, of the USRP.<sup>1</sup> The WCIRB does not recommend including Outside Salespersons.

## **I. Introduction**

Most classifications allow an employer's clerical or outside sales employees to be separately assigned to Classification 8810, *Clerical Office Employees*, Classification 8742, *Salespersons – Outside*, or, beginning in 2021, Classification 8871, *Clerical Telecommuter Employees*, pursuant to the Standard Exceptions rule. In that Standard Exception classifications may only be assigned to employees whose duties fall within that narrowly defined criteria, determining which individual employees meet the criteria within a policy period can prove challenging.

Other classifications are structured to explicitly include clerical office, clerical telecommuter or outside sales operations. This typically occurs when the employees' exposures to workplace hazards are relatively similar to those of the core classification and it is difficult to clearly distinguish an employer's primary operations from those that would otherwise be considered clerical or outside sales in nature. The primary rationale for including clerical or outside sales within the scope of a classification is to capture all the payroll and loss experience – including clerical and outside sales – within that industry's classification. This produces an advisory pure premium rate that more accurately reflects the industry's overall claim and payroll experience and avoids the need to determine whether individual employees meet the criteria of a Standard Exception Employee.

Given the challenges of determining whether individual employees meet the criteria for Standard Exception classifications, the WCIRB has undertaken a multi-year effort to systematically review classifications to identify those whose application would be improved by the inclusion of clerical office, clerical telecommuter or outside sales activities. As part of this effort, in 2021, the WCIRB completed a pilot study to establish a framework for the systematic review of additional classifications in subsequent years.

Based on a preliminary review of classifications for which clerical or outside sales employees are separately classified, the WCIRB selected Classification 4512, *Biomedical Research Laboratories – including outside operations*, as that classification met the following initial criteria:

- The classification has relatively low pure premium rates;
- The core business operations are relatively similar to clerical or outside sales activities; and
- The line of demarcation between clerical or outside sales activities and other employee activities may not always be clear.

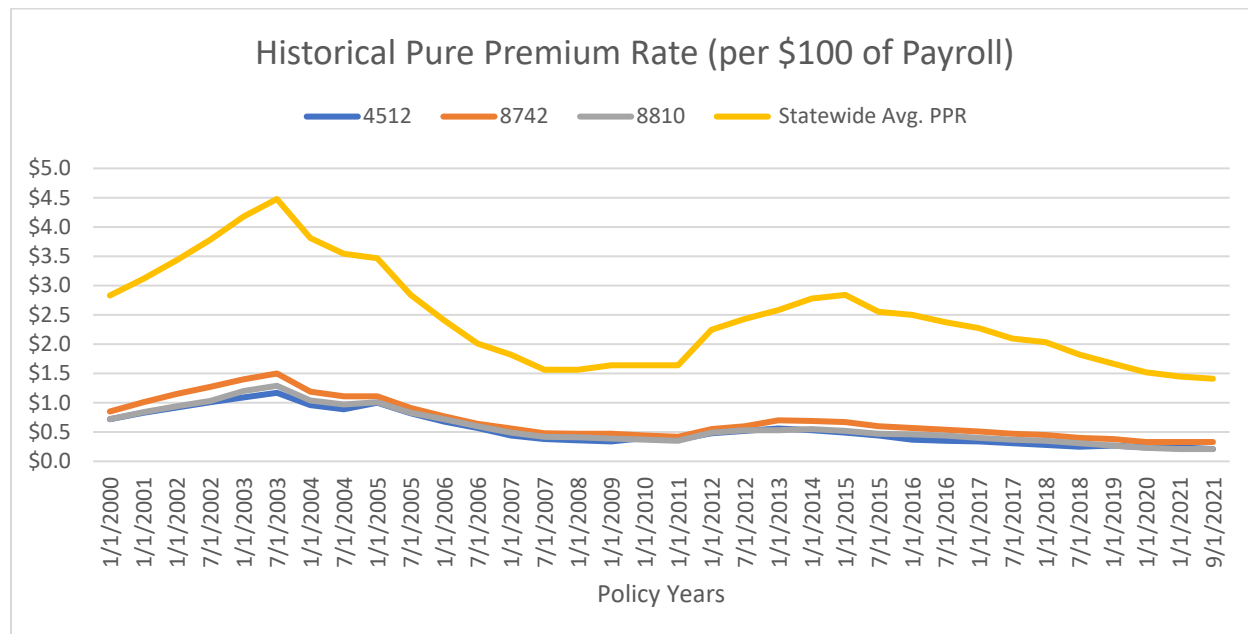
As shown in Figure 1, Classification 4512 has had much lower advisory pure premium rates than the statewide average. The advisory pure premium rates for Classification 4512 have been consistently similar to those for Classification 8810, *Clerical Office Employees*, and Classification 8742, *Salespersons – Outside*. The average credibility for Classification 4512 was approximately 0.96. While over 60% of biomedical research laboratory employers had payroll reported in Classification 8810, it was less common (33%) for these employers to retain dedicated outside salespersons with payroll assigned to Classification 8742. This is partly due to the scope of Classification 4512, which includes outside operations in

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<sup>1</sup> *California Workers' Compensation Uniform Statistical Reporting Plan—1995* (USRP)

connection with research work.<sup>2</sup> In addition, biomedical research laboratories perform core duties in a laboratory and/or office environment for research and documentation purposes, which is largely clerical in nature.

**Figure 1. Historical Pure Premium Rates**



|  | 9/1/2021 Pure Premium Rate (per \$100 of payroll) <sup>3</sup> | Approximate Average Credibility |
|--|--|---------------------------------|
| Classification 4512 – Biomedical Research Laboratories | \$0.21   | 0.96                            |
| Classification 8810 – Clerical Office Employees        | \$0.21   | 1.0                             |
| Classification 8742 – Outside Salespersons             | \$0.33   | 1.0                             |

The WCIRB analyzed the business operations and the payroll and claim experience of employers currently assigned to Classification 4512 to determine if their clerical or outside sales operations are distinct and easily identifiable or if some or all of the Standard Exception operations should be included within Classification 4512. This analysis framework would be applied to other classifications in subsequent studies.

## II. Analysis Approach

The WCIRB analyzed business operations and payroll and claim experience of biomedical research laboratories using both qualitative and quantitative data from a variety of sources.

<sup>2</sup> The clerical or outside sales operations of biomedical research laboratory employers account for less than 0.5% of the statewide payroll reported in Classifications 8810 and 8742.

<sup>3</sup> CDI Decision on the WCIRB September 1, 2021 Pure Premium Rate Filing.

Classification Inspection Reports: The WCIRB reviewed Classification Inspection Reports that assigned employers' operations to Classifications 4512 to better understand these employers' laboratory, clerical office and outside sales activities.

Industry Outreach: The WCIRB contacted members of the industry, including industry associations and insurers that underwrite significant components of this industry, to gain insights into the operational characteristics of biomedical research laboratories.

Unit Statistical Reports: The WCIRB analyzed the historical Unit Statistical Report (USR) data reported for Classifications 4512, 8810 and 8742, including employers' payroll and loss experience and injury characteristics of claims, for policy years 2006 through 2018. Data is at the latest USR report level (RL). Losses were limited to \$500,000 per claim to minimize large swings in the loss to payroll ratios over time.

Classification Relativity Data: Classification relativity data as reflected in the WCIRB's January 1, 2021 Regulatory Filing were used to analyze the impact of the potential inclusion of biomedical research laboratories' Standard Exception Employees currently assigned to Classifications 8810 and 8742.

### III. Analysis Results

#### 1. Comparison of Classifications 4512 and 8810

- **Biomedical Research Laboratories and Clerical Employees**

Employers assigned to Classification 4512, *Biomedical Research Laboratories*, conduct biomedical research and development in fields such as medicine, pharmacology, pathology, toxicology and microbiology. Biomedical research laboratories typically retain research chemists and biologists and support staff (research staff) to perform laboratory work, such as conducting scientific experiments and testing biologicals or chemicals in a clean room environment. Research staff often use lab equipment, such as microscopes, centrifuges and various electronic test equipment. Research laboratories also perform a significant amount of non-laboratory research work, including preparing samples of biomedical products, writing clinical trial protocols and documenting research progress, conducting data analysis, reformulating testing compounds and taking steps necessary for market approval. The actual manufacture of approved drugs is typically contracted to other concerns. In addition, researchers may travel to medical facilities for research and clinical trial purposes.

While employees assigned to Classification 4512 have exposures to a laboratory environment, these employees typically spend a significant portion of their time on compliance, documentation and report writing. As such, research staff often work in a clerical office environment, in which they are not engaged in laboratory operations. Given this overlap between clerical and research operations, there is often not a clear line of demarcation between employees conducting strictly clerical operations and those directly engaged in laboratory research. Many highly compensated scientists may spend minimal time in a lab, making it more difficult to discern the appropriate classification assignments. Laboratory researchers and clerical employees working at research laboratories have similar average weekly wages.<sup>4</sup>

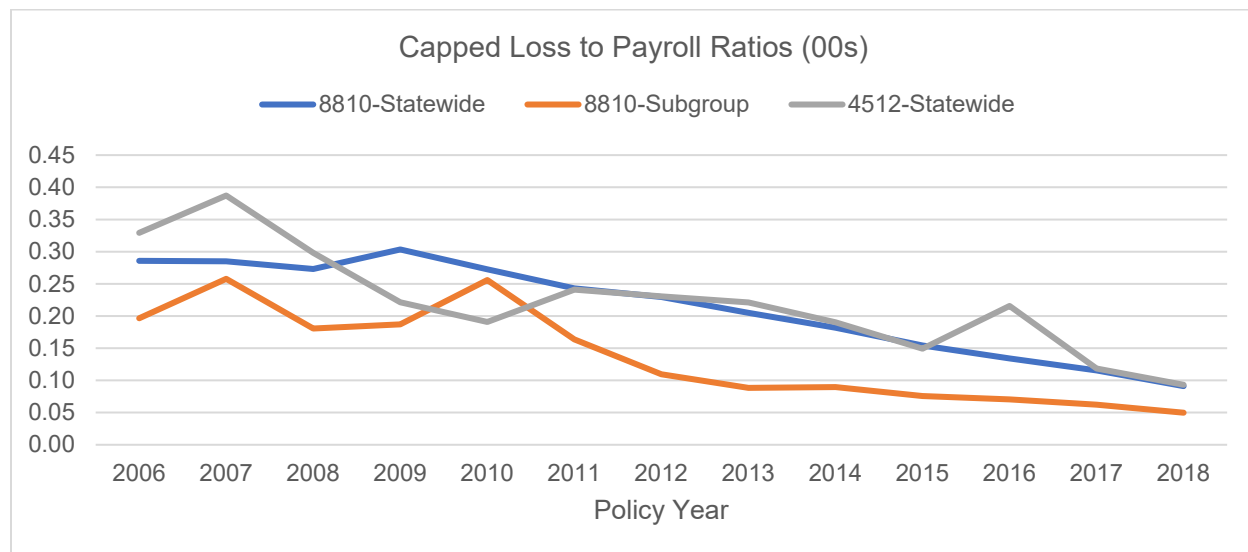
- **Payroll and Claim Experience of Biomedical Research Laboratories and the Clerical Subgroup**

The Classification 8810 subgroup represents clerical employees of biomedical research laboratories currently assigned to Classification 8810. As shown in Figure 2, the weighted average loss to payroll ratio for the Classification 8810 subgroup was lower than that for both the statewide Classification 8810 and Classification 4512. However, in more recent years, the loss to payroll ratios began to show signs of converging for the three groups, although the Classification 8810 subgroup's loss to payroll ratio still remained lower than that for the other two groups.

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<sup>4</sup> The wage information is from the 2019 Wage, Payroll and Exposure Report for California Workers' Compensation. The full-time average weekly wage was \$1,432 for Classification 4512 and \$1,477 for Classification 8810.

**Figure 2. Historical Loss to Payroll Ratios<sup>5</sup> Comparing Classification 4512, Classification 8810 and Classification 8810 Subgroup**



|                               | Loss to Payroll Ratio (00s)<br>(PYs 2006-2018) <sup>6</sup> | Five-Year<br>Loss to Payroll Ratio (00s)<br>(PYs 2014-2018) <sup>7</sup> |
|-------------------------------|---|--|
| Classification 4512           | 0.21  | 0.15   |
| Classification 8810 Subgroup  | 0.11  | 0.07   |
| Classification 8810 Statewide | 0.20  | 0.13   |

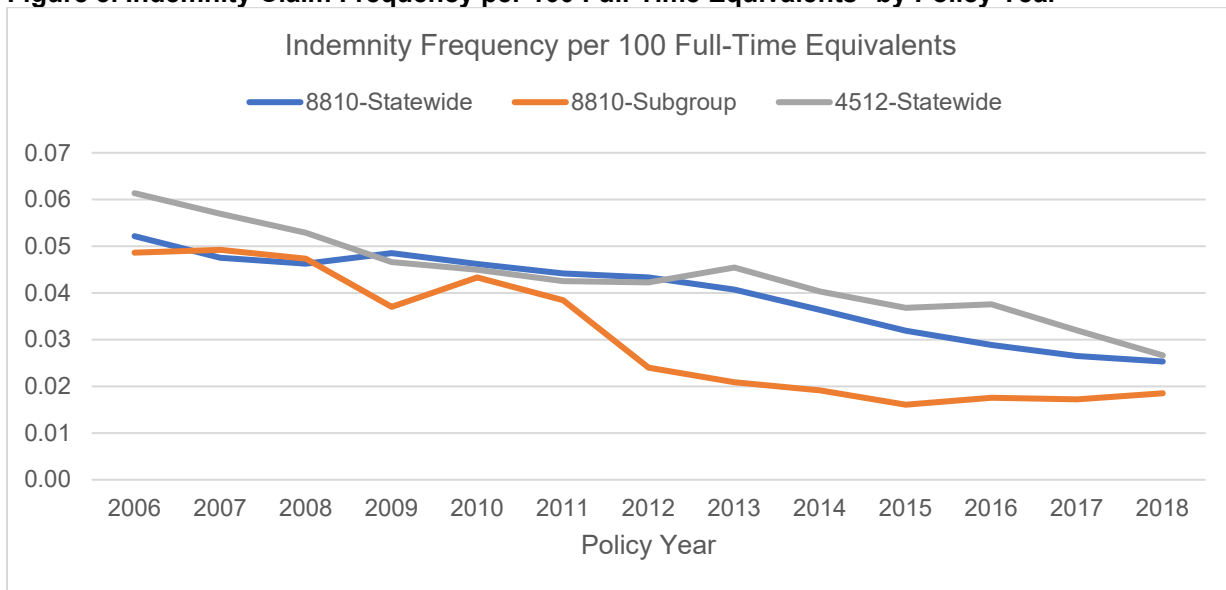
The lower loss to payroll ratio for the Classification 8810 subgroup was mostly driven by a lower indemnity claim frequency, especially for policy years after 2012 (Figure 3). The average severity per indemnity claim for the Classification 8810 subgroup, however, is more comparable to that of Classification 4512 (Figure 4). The statewide Classification 8810 generally had a higher average severity per indemnity claim than the other two groups over time. Over the time period studied, the weighted average severity for the Classification 8810 subgroup was 11% lower than that for Classification 4512 and about 22% lower than that for the statewide Classification 8810.

<sup>5</sup> Loss to payroll ratios were calculated using the losses capped at \$500,000 and payroll reported at the latest RL. The same methodology was used for Figures 4 and 7.

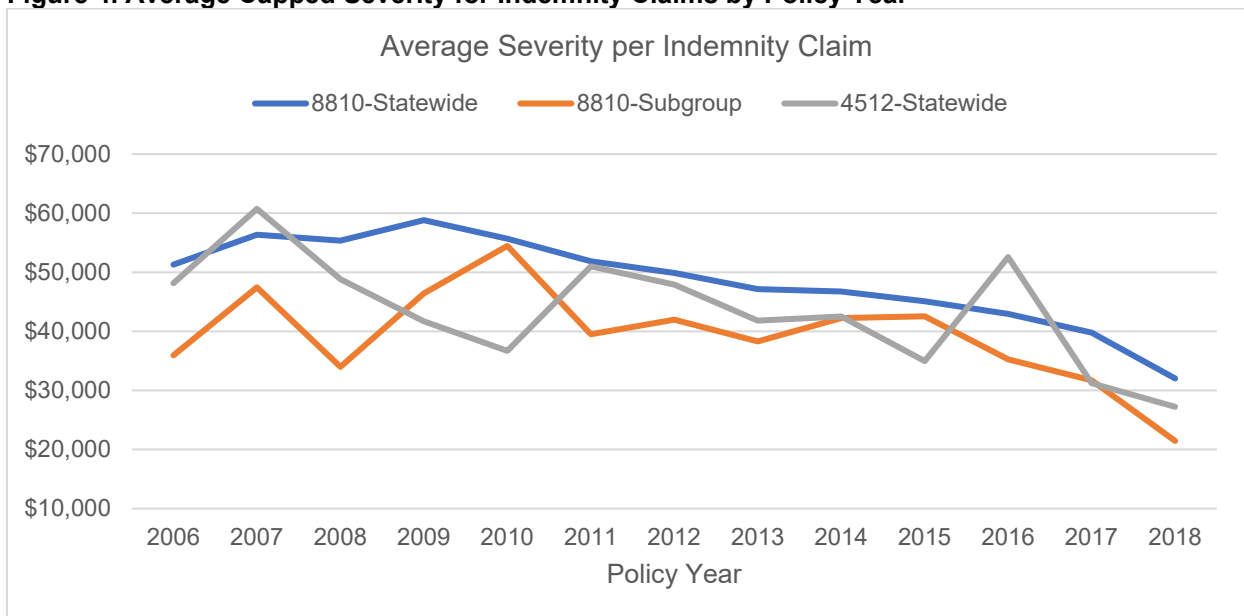
<sup>6</sup> The weighted average loss to payroll ratio was calculated as the aggregate losses over the policy year period from 2006 to 2018 divided by the aggregate payroll during the same period.

<sup>7</sup> The weighted average loss to payroll ratio was calculated as the aggregate losses over the policy year period from 2014 to 2018 divided by the aggregate payroll during the same period.

**Figure 3. Indemnity Claim Frequency per 100 Full-Time Equivalents<sup>8</sup> by Policy Year**



**Figure 4. Average Capped Severity for Indemnity Claims by Policy Year**



|                               | <b>Weighted Average Severity per Indemnity Claim (PYs 2006-2018)<sup>9</sup></b> |
|-------------------------------|--|
| Classification 4512           | \$43,793   |
| Classification 8810 Subgroup  | \$38,759   |
| Classification 8810 Statewide | \$49,406   |

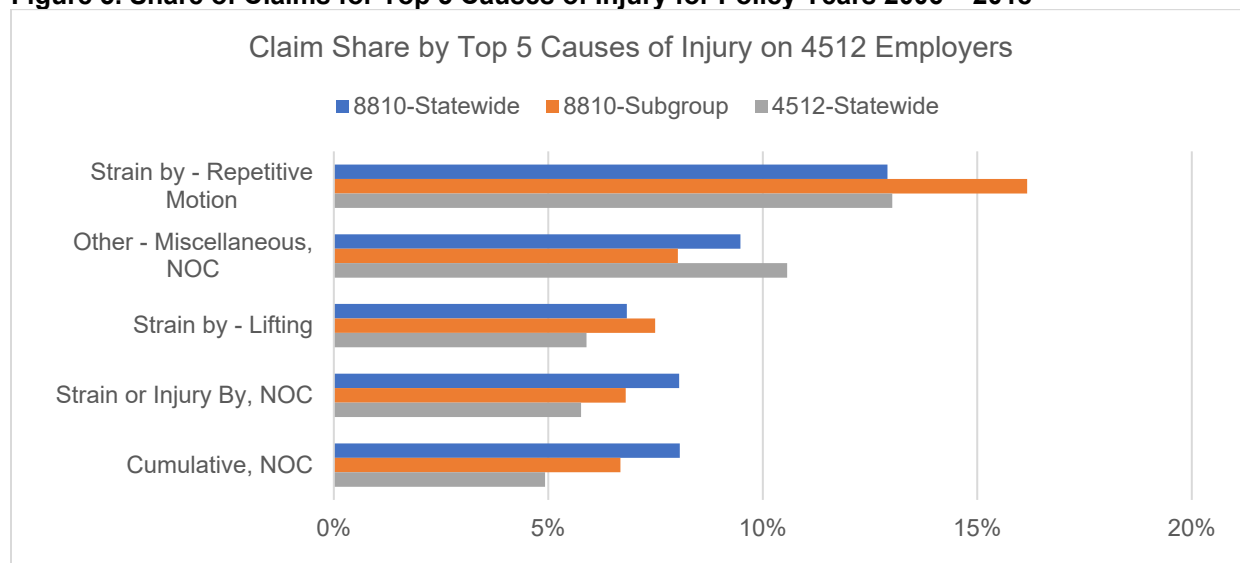
<sup>8</sup> The exposure base is full-time equivalent employees, which is derived from payroll exposure adjusted by the full-time equivalent average annual wage. The wage information is from the 2019 Wage, Payroll and Exposure Report for California Workers' Compensation. The full-time average weekly wage was \$1,432 for Classification 4512 and \$1,477 for Classification 8810.

<sup>9</sup> The weighted average severity per indemnity claim was calculated as the aggregate losses for indemnity claims over the policy year period from 2006 to 2018 divided by the aggregate indemnity claim count during the same period.

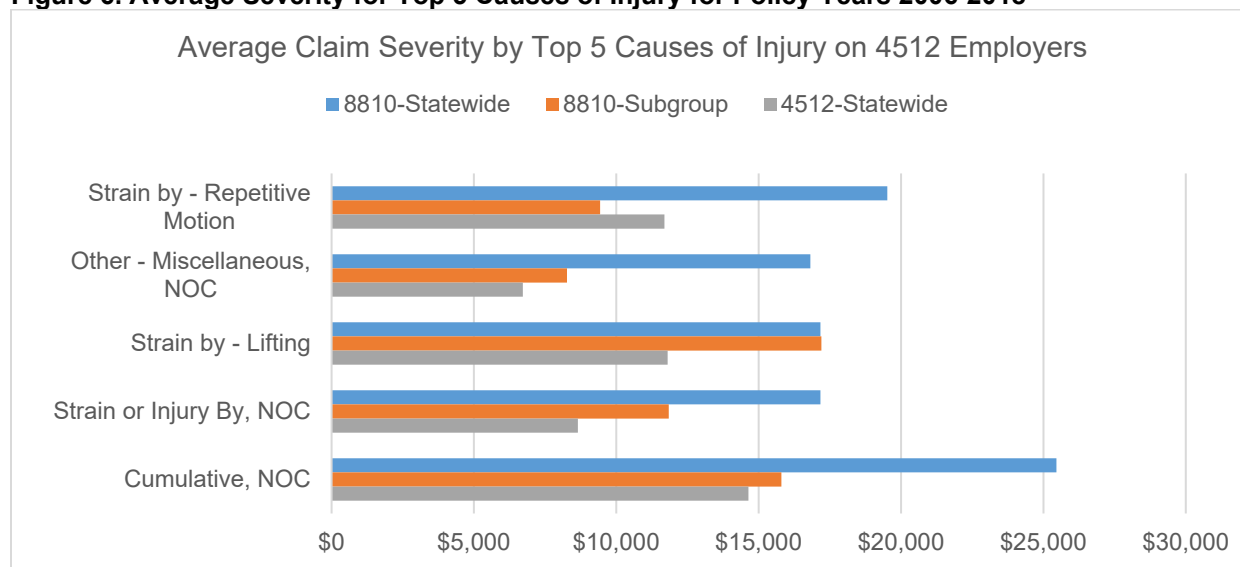


The typical causes of injury were similar between claims reported in the biomedical research laboratories classification (4512) and claims in the Classification 8810 subgroup (Figure 5). Strain by repetitive motion was the leading cause of injury for both biomedical research laboratories and their clerical employees. The share of other leading causes of injury among Classifications 4512 and 8810 and the Classification 8810 subgroup are also comparable. The average severity for claims involving the top leading causes of injury for the Classification 8810 subgroup was also more similar to Classification 4512, and the average claim severities for both were generally lower than the statewide Classification 8810 average severity (Figure 6).

**Figure 5. Share of Claims for Top 5 Causes of Injury for Policy Years 2006 – 2018<sup>10</sup>**



**Figure 6. Average Severity for Top 5 Causes of Injury for Policy Years 2006-2018**



The WCIRB's analysis indicates that biomedical research laboratories and their clerical employees share similar business operations and loss experience. A large portion of biomedical research laboratory operations involve non-laboratory research work, which is clerical in nature. Thus, it is often challenging to clearly distinguish a biomedical research laboratory employer's primary operation from those that would

<sup>10</sup> Policy year 2006 is the earliest year that the WCIRB has detailed information at the claim level.

otherwise be considered clerical in nature. With respect to loss experience, the reported Classification 8810 subgroup experience for biomedical research laboratories had a lower indemnity frequency than the statewide clerical experience, and the reported Classification 8810 subgroup experience shared more similar causes of injury and indemnity claim severity with the biomedical research laboratory operations than it did with the statewide Classification 8810 operations. The research laboratory clerical employees also share a similar average weekly wage as other biomedical research laboratory employees.<sup>11</sup>

Given the results of this analysis, the WCIRB recommends including clerical employees within the scope of Classification 4512. This would produce an advisory pure premium rate that more accurately reflects the industry’s overall payroll and claim experience and avoid the need to determine whether individual employees meet the criteria of a Clerical Office Employee. The impact of this recommendation on biomedical research laboratory employers currently assigned to Classifications 4512 and 8810 is shown in the Impact Analysis section of this report.

## 2. Comparison of Classifications 4512 and 8742

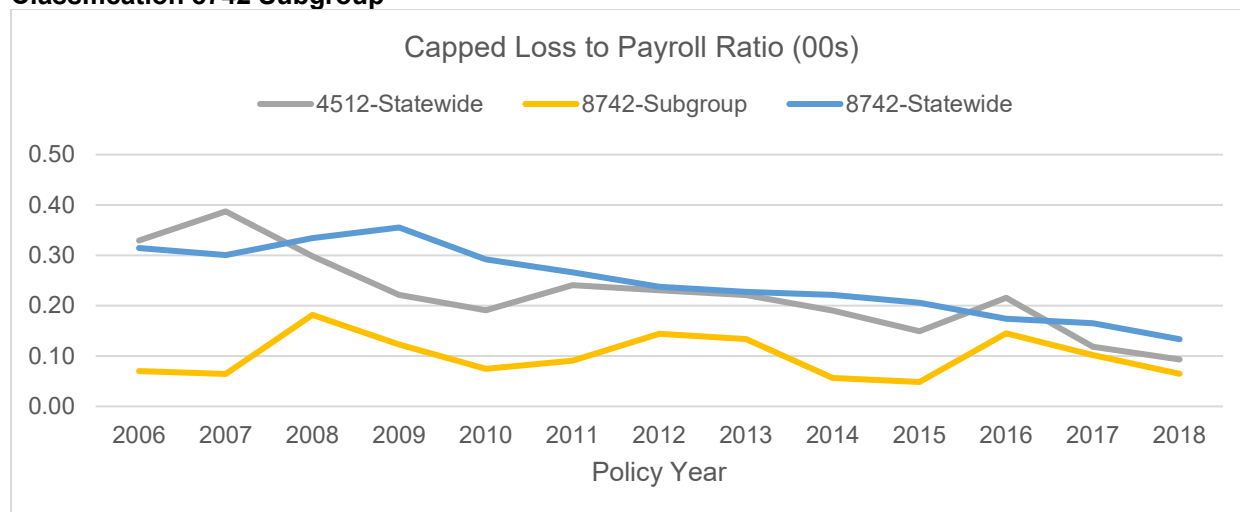
- **Biomedical Research Laboratories and Outside Sales Operations**

The Classification 8742 subgroup represents the outside sales employees of biomedical research laboratories. These employees travel to offices of clients, investors, vendors and regulatory agencies in support of the laboratory’s business operations. When these employees are not traveling, they usually conduct clerical and administrative work in an office environment, which does not involve any laboratory exposure. Although Classification 4512 includes “outside operations”, which typically involves research staff traveling to outside medical facilities for research and clinical trial purposes, these outside activities often are not part of the researchers’ job scope and do not constitute a significant additional exposure. Therefore, operations of the Classification 8742 subgroup do not overlap significantly with the biomedical research laboratory operations assigned to Classification 4512.

- **Payroll and Claim Experience of Biomedical Research Laboratories and Outside Sales Operations**

As shown in Figure 7, the average loss to payroll ratios for the Classification 8742 subgroup were consistently lower than the statewide Classification 8742 and Classification 4512. In more recent policy years, however, the loss to payroll ratios were converging between the Classification 8742 subgroup and Classification 4512, although the Classification 8742 subgroup still had lower loss to payroll ratios.

**Figure 7. Historical Loss to Payroll Ratios Comparing Classifications 4512 and 8742 Statewide and Classification 8742 Subgroup**



<sup>11</sup> The wage information is from the 2019 Wage, Payroll and Exposure Report for California Workers’ Compensation. The full-time average weekly wage was \$1,432 for Classification 4512 and \$1,477 for Classification 8810.

|                               | Loss to Payroll Ratio (00s)<br>(PYs 2006-2018) <sup>12</sup> | Five-Year<br>Loss to Payroll Ratio (00s)<br>(PYs 2014-2018) <sup>13</sup> |
|-------------------------------|--|---|
| Classification 4512           | 0.21   | 0.15  |
| Classification 8742 Subgroup  | 0.10   | 0.08  |
| Classification 8742 Statewide | 0.24   | 0.18  |

Similar to the Classification 8810 subgroup’s experience, the lower loss to payroll ratio for the Classification 8742 subgroup was mostly driven by a lower indemnity claim frequency, while indemnity claim frequency for the statewide Classifications 4512 and 8742 was fairly consistent over time (Figure 8).

**Figure 8. Indemnity Claim Frequency per 100 Full-Time Equivalents<sup>14</sup> by Policy Year**

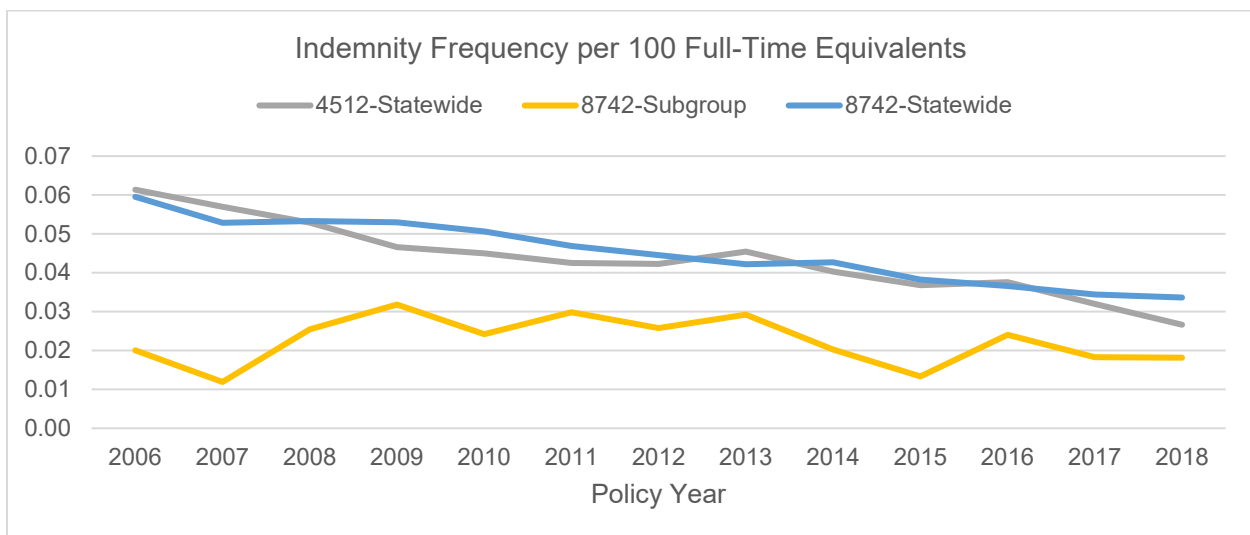


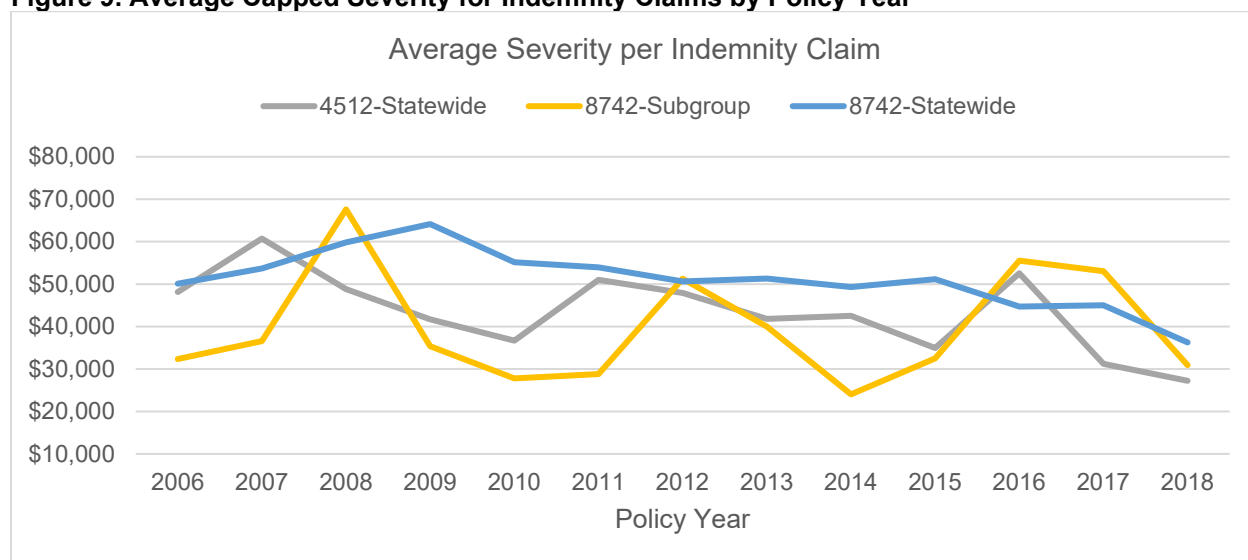
Figure 9 shows the average severity per indemnity claim for Classifications 4512 and 8742 and the Classification 8742 subgroup. The statewide Classification 8742 generally had a higher average severity than the other two groups, except for a few years. The Classification 8742 subgroup was more volatile given the relatively small reported payroll. From policy years 2006 to 2018, the weighted average severity per indemnity claim was lowest for the Classification 8742 subgroup and highest for the statewide Classification 8742 experience.

<sup>12</sup> The weighted average loss to payroll ratio was calculated as the aggregate losses over the policy year period from 2006 to 2018 divided by the aggregate payroll during the same period.

<sup>13</sup> The weighted average loss to payroll ratio was calculated as the aggregate losses over the policy year period from 2014 to 2018 divided by the aggregate payroll during the same period.

<sup>14</sup> The exposure base is full-time equivalent employees which is derived from payroll exposure adjusted by the full-time equivalent average annual wage. The wage information is from the 2019 Wage, Payroll and Exposure Report for California Workers’ Compensation. The full-time average weekly wage was \$1,432 for Classification 4512 and \$1,478 for Classification 8742.

**Figure 9. Average Capped Severity for Indemnity Claims by Policy Year**



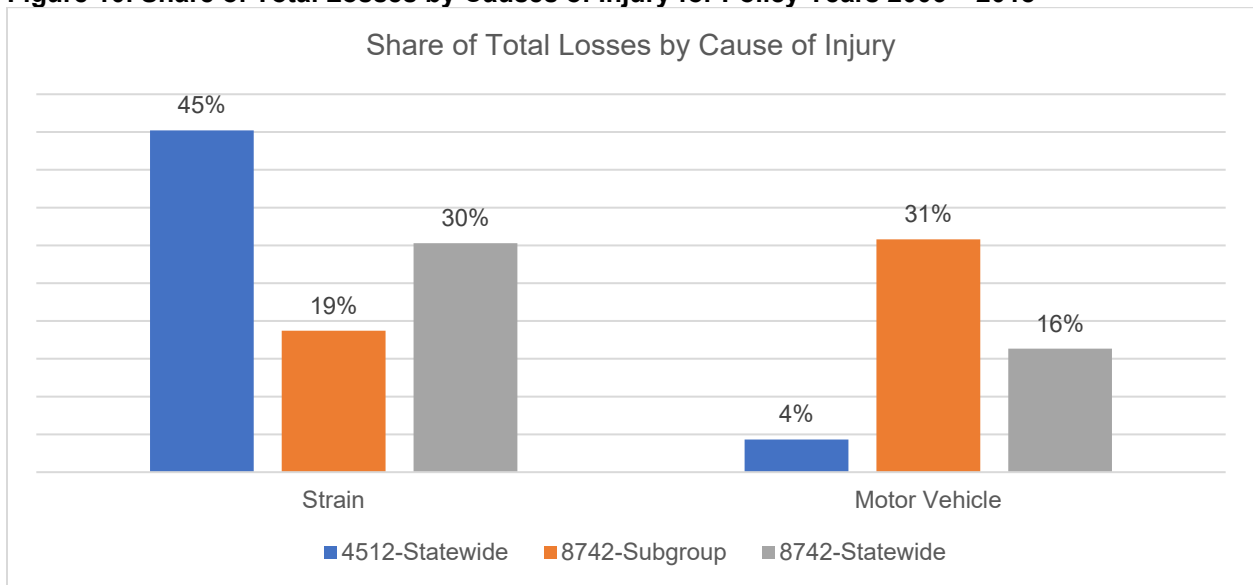
|                               | <b>Average Severity per Indemnity Claim<br/>(PYs2006-2018)<sup>15</sup></b> |
|-------------------------------|---|
| Classification 4512           | \$43,793  |
| Classification 8742 Subgroup  | \$40,360  |
| Classification 8742 Statewide | \$51,212  |

The WCIRB also analyzed the causes of injury reported for Classifications 4512 and 8742 as well as the Classification 8742 subgroup and found that the leading cause of injury differed sharply between Classification 4512 and the Classification 8742 subgroup. As shown in Figure 10, the top cause of injury for claims reported for biomedical research laboratories was strain injury, which accounted for 45% of the total losses. In comparison, strain injuries accounted for a much lower share (19%) of the total losses for the Classification 8742 subgroup. The leading cause of injury for claims reported for the Classification 8742 subgroup was motor vehicle accidents due to frequent travel, which accounted for 31% of the losses. However, motor vehicle accidents accounted for only 4% of the total losses for Classification 4512. By contrast, motor vehicle accidents accounted for 16% of the total losses for all of Classification 8742.

The contrast in the leading cause of injury and the respective share of the total losses was driven by different operational characteristics of these two types of operations, as discussed earlier, and a higher likelihood of serious injuries in motor vehicle accidents. While the research staff of biomedical research laboratories may have occasional travel exposure associated with visiting clinical trial sites, the risk is limited as these outside activities are not a common part of the researchers' jobs. Thus, the travel exposure of biomedical laboratories is borne primarily by outside salespersons contemplated by Classification 8742. Overall, the Classification 8742 subgroup's typical causes of injury are more similar to the statewide Classification 8742 experience, which involves more frequent travel exposure than the Classification 4512 experience.

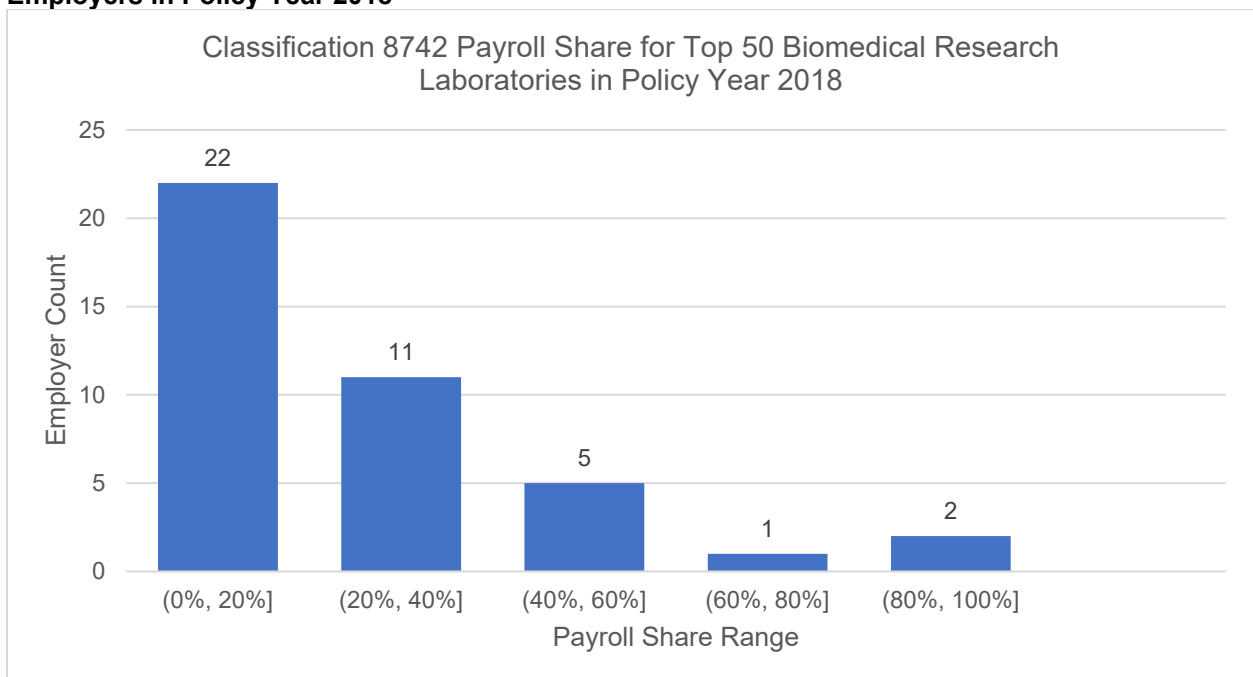
<sup>15</sup>The weighted average severity per indemnity claim was calculated as the aggregate losses for indemnity claims over the policy year period from 2006 to 2018 divided by the aggregate indemnity claim count during the same period.

**Figure 10. Share of Total Losses by Causes of Injury for Policy Years 2006 – 2018<sup>16</sup>**



The WCIRB also reviewed the payroll distribution of Classification 8742 across the 50 largest policyholders in Classification 4512, as disparity in payroll and claim characteristics among segments of a classification is less of a concern if the payroll split between the two segments is relatively consistent across policyholders within the classification. As shown in Figure 11, the relative share of Classification 8742 payroll reported for Classification 4512 employers differed sharply amongst the largest 50 employers in the classification, ranging from almost 20% of the employers with no reported payroll in Classification 8742 to some employers with more than 80% of the reported payroll in Classification 8742.

**Figure 11. Share of Classification 8742 Payroll for Top Biomedical Research Laboratory Employers in Policy Year 2018**



<sup>16</sup> Policy year 2006 was the earliest year that the WCIRB had detailed information at the claim level.

In summary, the business operations, underlying hazards and claim experience of biomedical research laboratory outside sales employees assigned to Classification 8742 are different from other biomedical research laboratory employees assigned to Classification 4512. Particularly, the outside sales employees tend to have a much larger exposure to potentially serious motor vehicle accidents than researchers at biomedical research laboratories. In addition, the proportion of Classification 8742 exposure varies significantly across the top employers in Classification 4512. Therefore, the WCIRB does not recommend including outside sales employees within the scope of Classification 4512 and recommends that the operations of these outside salespersons continue to be assigned to Classification 8742.

#### IV. Impact Analysis

The WCIRB evaluated the impact of including clerical employees in Classification 4512 on the classification relativities for Classifications 4512 and 8810.<sup>17</sup> Classification relativities for Classifications 4512 and 8810 and the two standard exception subgroups are included in Appendix II.

##### 1. Impact on Employers in Classification 4512

Table 1 shows that the selected loss to payroll ratio for Classification 4512 would decrease by 28.7% after the inclusion of Clerical Office Employees. The large decrease is driven by the better loss to payroll experience among the clerical employees at biomedical research laboratories as compared to the statewide Classification 4512 experience. Standard WCIRB classification ratemaking procedures are to limit Classification Relativity changes in a particular year to 25%, leading to an adjusted selected loss to payroll ratio, 0.136.<sup>18</sup>

**Table 1. Changes in the Selected (Unlimited) Loss to Payroll Ratio for Classification 4512 Under Proposed Recommendation**

| Classification 4512 (A) | Classifications 4512 + 8810 Subgroup (B) | % Difference (B/A-1) |
|-------------------------|--|----------------------|
| 0.181                   | 0.129                                    | -28.7%               |

##### 2. Impact on the Employers in Classification 8810

The WCIRB also analyzed the impact on the clerical employees who are currently assigned to Classification 8810. As shown in Table 2, after excluding the loss and payroll experience of the Classification 8810 subgroup, the statewide Classification 8810 would have a modest increase in its loss to payroll ratio (+5.0%). The modest increase is attributed to the significantly better than average loss to payroll experience of clerical employees at biomedical research laboratories being removed from the experience underlying the classification relativity rate for the remainder of Classification 8810.

**Table 2. Changes in the Selected (Unlimited) Loss to Payroll Ratio for Classification 8810 Under Proposed Recommendation**

| Classification 8810 (A) | Classification 8810 excl. 8810 Subgroup (B) | % Difference (B/A-1) |
|-------------------------|---|----------------------|
| 0.159                   | 0.167                                       | +5.0%                |

<sup>17</sup> At this time, the advisory pure premium rate for Classification 8871 is the same as that for Classification 8810.

<sup>18</sup> The calculation of the selected loss to payroll ratio after restricted to 25% change limitation is  $0.181 \times (1 - 25\%) = 0.136$ .

### 3. Impact on the Employers that Currently Report Payroll in both Classifications 4512 and 8810

The WCIRB also analyzed the overall potential impact of including clerical employees in Classification 4512 on employers with historical payrolls reported in both Classifications 4512 and 8810. Payroll reported on these employers accounts for 91% of the total payroll reported in Classification 4512. The overall impact of including clerical employees would be based on a mix of the selected loss to payroll ratios for Classifications 4512 and 8810, and the impact on any individual employer would vary depending on their own mix of the two classifications.

As shown in Figure 12, on average about 25% of research laboratory employers' total payroll was reported in Classification 4512 and 75% in Classification 8810. The payroll split was relatively consistent for the latest 5 policy years.

**Figure 12. Payroll Split Between Classifications 4512 and 8810 by Policy Year**

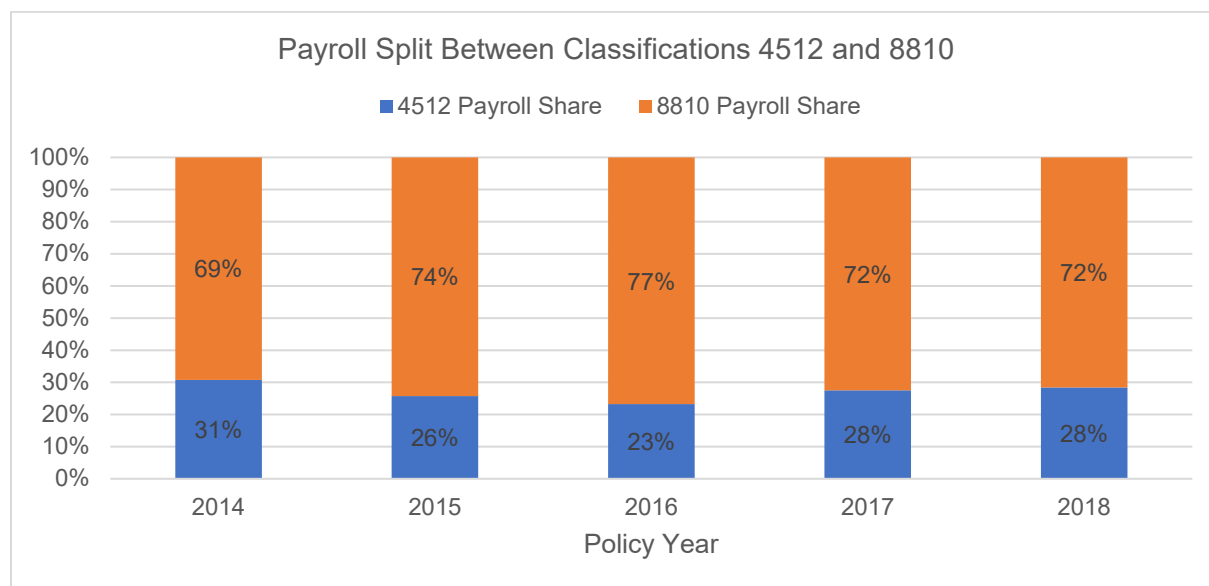


Table 3 shows the average impact of including clerical employees in Classification 4512 on biomedical research employers. Based on the historical payroll split between Classifications 4512 and 8810, on average, employers assigned to both Classifications 4512 and 8810 would experience a decline of 17.6% in the selected loss to payroll ratio under the proposed recommendation.

**Table 3. Changes in the Selected (Unlimited) Loss to Payroll Ratio for Employers Currently Reporting Payroll in both Classifications 4512 and 8810**

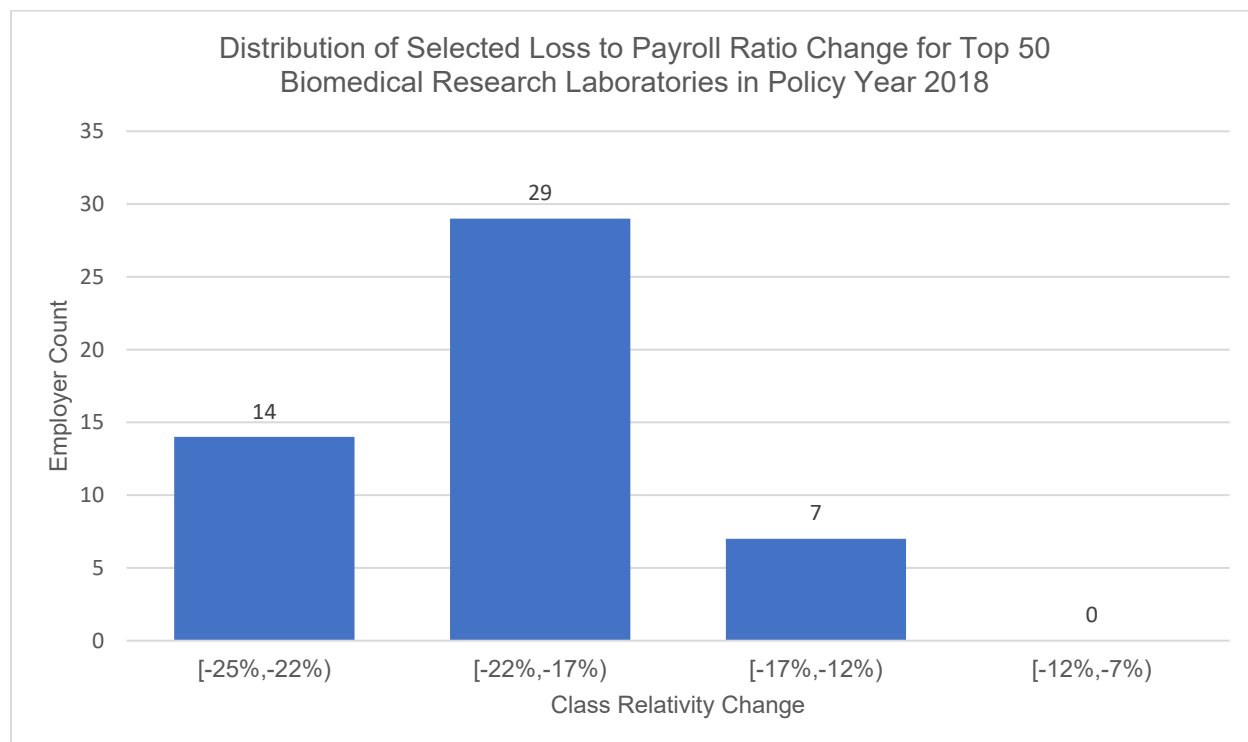
| Classification 4512 Employers                             | Current Classification Structure <sup>19</sup> | Proposed Classification Structure <sup>20</sup> | % Difference |
|---|--|---|--------------|
| 25%/75% Payroll Reported in Classifications 4512 and 8810 | 0.165  | 0.136   | -17.6%       |

<sup>19</sup> The selected (unlimited) loss to payroll ratio in the current classification structure is the weighted average of the current selected (unlimited) loss to payroll for Classification 4512 (0.181) and Classification 8810 (0.159) based on the historical payroll share data of 25% and 75% payroll reported in Classifications 4512 and 8810, respectively. The calculation of the selected loss to payroll ratio is  $25\% \times 0.181 + 75\% \times 0.159 = 0.165$ .

<sup>20</sup> The proposed selected loss to payroll ratio is restricted to 25% change. See details in paragraph 1 above in this section.

Figure 13 shows the estimated impact of the WCIRB's recommended change on the top 50 biomedical research employers based on their individual payroll mix of Classifications 4512 and 8810. All top 50 employers would have a greater than 12% decrease in the selected loss to payroll ratio due to the significant indicated reduction in the loss to payroll ratio for Classification 4512 under the proposed recommendation.

**Figure 13. Change in Selected Loss to Payroll Ratios for Top 50 Biomedical Research Laboratory Employers**



**V. Findings**

Based on this review, the WCIRB has determined:

1. Operations of biomedical research laboratories assigned to Classification 4512 often involve both laboratory work and non-laboratory research work, and the latter is typically clerical in nature. Further, the line of demarcation between employees engaged exclusively in clerical operations and those performing biomedical research operations is not always clear.
2. The clerical operations of biomedical research laboratories (Classification 8810 subgroup) have better loss to payroll experience than the statewide experience of Classification 8810, mostly driven by a lower indemnity claim frequency. The typical causes of injury and indemnity claim severity for the Classification 8810 subgroup are more similar to those of Classification 4512 than to Classification 8810 as a whole.
3. Including clerical employees in Classification 4512 would lead to a drop (-28.7%) in classification relativity for Classification 4512. In accordance with standard WCIRB classification ratemaking procedures, the relativity changes would be limited to a 25% decrease. The classification relativity for the statewide Classification 8810 would increase by 5.0% after removing the Classification 8810 subgroup from the statewide Classification 8810 experience.



4. The portion of biomedical research laboratories' payroll assigned to Classification 8742 varies widely across the industry, ranging from about 20% of employers having no reported payroll in Classification 8742 to some employers having 8742 account for more than 80% of their total reported payroll. Further, the Classification 8742 experience in connection with laboratories (Classification 8742 subgroup) had a significantly lower loss to payroll ratio than Classification 4512, and a disproportionately higher share of the losses caused by motor vehicle accidents when compared to Classification 4512. Therefore, the business operations and loss experience of outside salespersons at biomedical research laboratories are different from those of Classification 4512 operations.

## **VI. Recommendations**

Based on these findings, the WCIRB recommends amending Classification 4512, *Biomedical Research Laboratories – including outside operations*, to include Clerical Office Employees and Clerical Telecommuter Employees as defined in Part 3, *Standard Classification System*, Section III, *General Classification Procedures*, Rule 4, *Standard Exceptions*, of the USRP. The WCIRB does not recommend including Outside Salespersons.

## Appendix I – History

Following is a summary of the one substantive change to the scope and application of Classification 4512:

- **1991:** Classification 4512, *Biomedical Research Laboratories — including outside operations*, was established resulting from a WCIRB study of Classification 4511, *Analytical or Testing Laboratories — including outside operations and sample collection — N.O.C.* Classification 4511 does not include clerical employees but includes outside operations performed by analytical or testing laboratories. The study determined that biomedical research was a distinct and identifiable industry of sufficient size to merit a new classification. Classification 4512 was then established to apply only to biomedical research laboratories, including outside operations. Classification 4512 cannot be used in connection with any other separately classifiable operations by the same employer. Since then, several enhancements have been made to the footnotes for this classification, but no significant changes have taken place.

## Appendix II – Classification Relativities

**Table 1: Classification 4512 – Classification Relativity at Policy Year 2021 Level**

| Policy Year | Adjusted Payroll | Adjusted Indemnity Losses | Adjusted Medical Losses | Adjusted Total Losses | Adjusted Loss to Payroll Ratio (00s) |
|-------------|------------------|---------------------------|-------------------------|-----------------------|--------------------------------------|
| 2013        | 1,912,394,848    | 1,341,881                 | 1,447,116               | 2,788,997             | 0.146                                |
| 2014        | 2,300,634,763    | 1,437,547                 | 1,748,948               | 3,186,495             | 0.139                                |
| 2015        | 2,435,638,002    | 1,628,481                 | 1,873,147               | 3,501,628             | 0.144                                |
| 2016        | 2,551,627,536    | 2,795,951                 | 2,696,016               | 5,491,967             | 0.215                                |
| 2017        | 3,063,922,062    | 2,148,385                 | 2,209,263               | 4,357,648             | 0.142                                |
| Total       | 12,264,217,211   | 9,352,245                 | 9,974,490               | 19,326,735            |                                      |

Adjusted Loss to Payroll Ratio 0.158  
 Selected (Unlimited) Loss to Payroll Ratio 0.181

| Credibility |         |
|-------------|---------|
| Indemnity   | Medical |
| 0.98        | 0.94    |

**Table 2: Classification 8810 – Classification Relativity at Policy Year 2021 Level**

| Policy Year | Adjusted Payroll | Adjusted Indemnity Losses | Adjusted Medical Losses | Adjusted Total Losses | Adjusted Loss to Payroll Ratio (00s) |
|-------------|------------------|---------------------------|-------------------------|-----------------------|--------------------------------------|
| 2016        | 184,497,725,554  | 125,891,895               | 138,477,481             | 264,369,376           | 0.143                                |
| 2017        | 196,089,565,062  | 132,599,806               | 145,193,917             | 277,793,723           | 0.142                                |
| Total       | 380,587,290,616  | 258,491,701               | 283,671,397             | 542,163,098           |                                      |

Adjusted Loss to Payroll Ratio 0.142  
 Selected (Unlimited) Loss to Payroll Ratio 0.159

| Credibility |         |
|-------------|---------|
| Indemnity   | Medical |
| 1.00        | 1.00    |

**Table 3: Classification 8810 Subgroup – Classification Relativity at Policy Year 2021 Level**

| Policy Year | Adjusted Payroll | Adjusted Indemnity Losses | Adjusted Medical Losses | Adjusted Total Losses | Adjusted Loss to Payroll Ratio (00s) |
|-------------|------------------|---------------------------|-------------------------|-----------------------|--------------------------------------|
| 2016        | 8,894,910,218    | 3,382,756                 | 4,244,806               | 7,627,562             | 0.086                                |
| 2017        | 9,317,458,482    | 3,857,503                 | 3,915,428               | 7,772,931             | 0.083                                |
| Total       | 18,212,368,700   | 7,240,258                 | 8,160,235               | 15,400,493            |                                      |

Adjusted Loss to Payroll Ratio 0.085  
 Selected (Unlimited) Loss to Payroll Ratio 0.126

| Credibility |         |
|-------------|---------|
| Indemnity   | Medical |
| 1.00        | 1.00    |

**Table 4: Classification 8742 Subgroup – Classification Relativity at Policy Year 2021 Level**

| Policy Year | Adjusted Payroll | Adjusted Indemnity Losses | Adjusted Medical Losses | Adjusted Total Losses | Adjusted Loss to Payroll Ratio (00s) |
|-------------|------------------|---------------------------|-------------------------|-----------------------|--------------------------------------|
| 2013        | 1,189,102,930    | 628,497                   | 821,597                 | 1,450,094             | 0.122                                |
| 2014        | 1,386,355,287    | 363,675                   | 593,406                 | 957,081               | 0.069                                |
| 2015        | 1,639,223,763    | 499,857                   | 666,639                 | 1,166,496             | 0.071                                |
| 2016        | 1,592,042,543    | 1,298,526                 | 1,615,439               | 2,913,965             | 0.183                                |
| 2017        | 2,087,522,162    | 1,513,786                 | 954,399                 | 2,468,185             | 0.118                                |
| Total       | 7,894,246,685    | 4,304,341                 | 4,651,480               | 8,955,821             |                                      |

Adjusted Loss to Payroll Ratio 0.113  
 Selected (Unlimited) Loss to Payroll Ratio 0.175

| Credibility |         |
|-------------|---------|
| Indemnity   | Medical |
| 0.95        | 0.85    |

**Recommendation**

Amend Classification 4512, *Biomedical Research Laboratories*, to include Clerical Office Employees and Clerical Telecommuter Employees.

PROPOSED

**BIOMEDICAL RESEARCH LABORATORIES – all employees – including ~~outside operations~~ Clerical Office Employees and Clerical Telecommuter Employees** 4512

This classification applies to biomedical research, including outside operations, in fields such as medicine, pharmacology, pathology, toxicology and microbiology. The research may be performed on a contract basis or in connection with the proprietary development of new products, medications or procedures to treat or cure diseases or conditions that cause illness.

This classification does not apply when the biomedical research is in connection with, or in support of, the commercial production of products or medications by the employer. Biomedical research in connection with other operations of the same employer is a General Inclusion. See Section III, Rule 5, *General Inclusions*.

The manufacturing, blending or packaging of drugs, medicines or pharmaceutical preparations that are intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease shall be classified as 4611, *Drug, Medicine or Pharmaceutical Preparations Mfg.*

The manufacture of serums, antitoxins, viruses or medical diagnostic test kits shall be classified as 5951, *Serum, Antitoxin or Virus Mfg.*

The diagnostic testing of human tissues, blood or other biologic specimens on a fee basis shall be classified as 8834, *Physicians' Practices and Outpatient Clinics*.

\* \* \* \* \*

**Recommendation**

Amend Appendix IV, *Classifications Including Clerical Office Employees, Clerical Telecommuter Employees or Outside Salespersons*, for consistency with other proposed changes.

PROPOSED

**Appendix IV**

**Classifications Including Clerical Office Employees, Clerical Telecommuter Employees or Outside Salespersons**

See Section III, *General Classification Procedures*, Rule 4, *Standard Exceptions*, Subrule c, *Standard Exception Classification Procedures*.

| Code        | Name                                    | Including Clerical Office Employees / Clerical Telecommuter Employees | Including Outside Salespersons |
|-------------|---|---|--------------------------------|
| •           |   |   |                                |
| •           |   |   |                                |
| •           |   |   |                                |
| <u>4512</u> | <u>Biomedical Research Laboratories</u> | <u>X</u>  |                                |
| •           |   |   |                                |
| •           |   |   |                                |
| •           |   |   |                                |

\* \* \* \* \*