

Report on the Review of Dual Wage Classification Thresholds

Excerpts from the WCIRB Classification and Rating Committee Agenda
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Review of Dual Wage Classification Thresholds

I. Background

In 1986, the Dual Classification by Wage Level Program (Program) was adopted by the California Insurance Commissioner following a WCIRB study initiated to address employer concerns about potential inequities in premiums paid due to variations in wage levels for construction employees. The Program was established for construction classifications that were large enough to be segregated into two statistically credible classifications and for which survey results showed (a) a significant variation in wages paid by employers and (b) a significant disparity in claim costs per \$100 of payroll by wage level. The Program involves segregating a classification into two distinct (dual) classifications based on the hourly wages paid by employers assigned to the classification. The wage threshold for each classification was established at a level so that (a) both the high and low wage dual classifications would have credible experience, (b) relatively few employees in the classifications were paid wages at a level close to the threshold and (c) there was a significant differential indicated between the losses per \$100 of payroll among employers with average wages below the threshold and those with average wages above the threshold.

For a number of years, the WCIRB reviewed and adjusted dual wage thresholds regularly to reflect several measures of wage inflation in construction. However, beginning in 2010, threshold adjustments were not made for several years due to concerns that these measures of wage inflation were not accurately reflecting shifts in the structure of the construction industry in California resulting from the Great Recession. As a result of these and other concerns, in 2012, the WCIRB conducted a comprehensive review of the dual wage system.

The 2012 comprehensive study recommended that the dual wage system be retained in California. In addition, the study recommended that in order to maintain the integrity of the dual wage classifications, the wage thresholds should be reviewed regularly for inflation as well as for structural changes in the construction industry. Since that time, the WCIRB has regularly reviewed the threshold amounts for specific dual wage classifications in accordance with the schedule adopted by the C & R Committee. The most recent comprehensive review of all dual wage classifications was conducted in 2021 and the resulting changes to the thresholds took effect September 1, 2022.¹ Exhibit 1 shows a history of the thresholds underlying each pair of dual wage classifications by policy year.

This study of dual wage classification thresholds is based on an analytical review of WCIRB unit statistical data and external wage data from published government sources. The unit statistical data reviewed was based on information from policies incepting in 2020 and prior as reported to the WCIRB. Wage data was primarily based on information obtained from the Bureau of Labor Statistics (BLS) Occupational Employment and Wage Statistics (OEWS) program published in April 2023. Other published sources of wages for construction occupations were also reviewed. For each pair of dual wage classifications, the dual wage thresholds indicated by several alternative analytical methods using different assumptions were reviewed to determine the proposed threshold for the classifications to be effective September 1, 2024. These approaches are described in detail in Appendix I. The results of the review are discussed below.

II. Dual Wage Classification Study Results

Classifications 5027/5028, *Masonry*

The current threshold for Classifications 5027/5028, *Masonry*, is \$32. This threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$32 dual wage threshold effective in 2022 is 54% based on the OEWS wage distribution in 2022. Changes in wage levels around the threshold for 2020 and 2021 based on the OEWS data for these classifications appear atypical, with significantly high inflation in 2020 followed by deflation in 2021 (Exhibit 4.1). While inflation in 2022 appears within the typical range, extrapolating this data to the

¹ The thresholds of three dual wage classifications (6218/6220, *Excavation/Grading/Land Leveling*, 6307/6308, *Sewer Construction* and 6315/6316, *Water/Gas Mains*) were last amended effective September 1, 2023.

future in the primary method suggests no change in the threshold for these classifications. However, the extrapolation would be partially based on the anomalous negative inflation in 2021, which may not be indicative of future wage inflation for these classifications.

The WCIRB reviewed alternative wage sources for these classifications, including prevailing wage determinations made by the California Department of Industrial Relations (DIR). This information suggests modest growth in wages for these classifications with some further growth projected (Exhibit 4.1). Based on the DIR's prevailing wage information, wage inflation for Classifications 5027/5028 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 8.3% over the entire period (Exhibit 4.2). Applying the estimated wage inflation to the current \$32 threshold results in an indicated threshold of \$35.

Under the supplemental method, a \$35 threshold is estimated to increase the low wage payroll share from 35% at the current threshold to 42% and increase the loss to payroll differential from 196% to 223% (Exhibit 4.3). The \$35 threshold also indicates a consistently low concentration of injured workers around the threshold level.

Although the primary method based on OEWS data suggests no change in the threshold for these classifications, the anomalous wage inflation in the OEWS data for 2021 and 2022 covering the pandemic period may not be appropriate to project into the future for these classifications. The supplemental method strongly supports a \$35 threshold, which is also supported by the alternative wage inflation based on DIR prevailing wages. As a result, WCIRB staff recommends an increase in the threshold for Classifications 5027/5028 from \$32 to \$35.

Classifications 5190/5140, *Electrical Wiring*

The current threshold for Classifications 5190/5140, *Electrical Wiring*, is \$34. This threshold became effective on September 1, 2022, which is selected as the "base year" for this study. The approximate wage percentile corresponding to the \$34 dual wage threshold effective in 2022 is 50% based on the OEWS wage distribution in 2022. Changes in wage levels around the threshold for 2021 and 2022 based on the OEWS data for these classifications appear atypical, with some negative inflation in those years (Exhibit 5.1). Extrapolating this data to the future in the primary method suggests no change in the threshold for these classifications.² However, the recent negative wage inflation during the pandemic period may not be indicative of future wage inflation for these classifications.

The WCIRB reviewed alternative wage sources for these classifications, including prevailing wage determinations made by the DIR. This information suggests modest growth in wages for these classifications with some further growth projected (Exhibit 5.1). Based on the DIR's prevailing wage information, wage inflation for Classifications 5190/5140 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 7.3% over the entire period (Exhibit 5.2). Applying the estimated wage inflation to the current \$34 threshold results in an indicated threshold of \$36.

Under the supplemental method, a \$36 threshold is estimated to increase the low wage payroll share from 23% at the current threshold to 27% and sustain a loss to payroll differential at around 187%. A \$36 threshold would lower the concentration of injured workers' wages within one dollar of the threshold (Exhibit 5.3). The maximum increase in the loss to payroll ratio differential is achieved with a threshold of \$38, which also has a low concentration of wages around the threshold.

Although the primary method based on OEWS data suggests no change in the threshold for these classifications, the anomalous wage inflation in the OEWS data for 2021 and 2022 during the pandemic period may not be appropriate to project into the future for these classifications. The alternative wage inflation based on DIR prevailing wages indicates a \$36 threshold, which is also supported by the supplemental method. As a result, WCIRB staff recommends an increase in the threshold for Classifications 5190/5140 from \$34 to \$36.

² For the purpose of dual wage thresholds review, the minimum projected wage inflation is capped at 0%.

Classifications 5183/5187, Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment

The current threshold for Classifications 5183/5187, *Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment*, is \$31. This threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$31 dual wage threshold effective in 2022 is 52% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5183/5187 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 2.5% over the entire period (Exhibit 6.1). Applying the estimated wage inflation to the current \$31 threshold results in an indicated threshold of \$32.

Under the supplemental method, a \$32 threshold is estimated to increase the low wage payroll share from 27% at the current threshold to 29% and increase the loss to payroll differential from 223% to 226%. The \$32 threshold is also estimated to reduce the concentration of wages within one dollar of the threshold based on the distribution of injured workers’ average weekly wage reported in unit statistical data (Exhibit 6.2). The maximum incremental increase in the loss to payroll differential under this method is achieved at a \$34 threshold, which also has a lower concentration of wages near the threshold than a \$32 threshold, along with further increases in the low wage payroll share.

Although the supplemental method suggests a larger increase to a \$34 threshold for these classifications may be appropriate, the primary method indication of \$32 is also supported by the supplemental method. As a result, WCIRB staff recommends an increase in the threshold for Classifications 5183/5187 from \$31 to \$32.

Classifications 5185/5186, Automatic Sprinkler Installation

The current threshold for Classifications 5185/5186, *Automatic Sprinkler Installation*, is \$32. This threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$32 dual wage threshold effective in 2022 is 53% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5185/5186 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 2.6% over the entire period (Exhibit 7.1). Applying the estimated wage inflation to the current \$32 threshold results in an indicated threshold of \$33.

Under the supplemental method, a \$33 threshold is estimated to increase the low wage payroll share from 30% at the current threshold to 32% and increase the loss to payroll differential from 208% to 233% (Exhibit 7.2). A \$33 threshold is also estimated to lower the concentration of wages within one dollar of the threshold based on the distribution of injured workers’ average weekly wage reported in unit statistical data. While a further increase in the loss to payroll ratio differential and a slightly lower concentration of wages within one dollar of the threshold are obtained at a threshold of \$34, the supplemental method strongly supports a \$33 threshold as well.

Given that the primary method indication of \$33 is well supported by the supplemental method, WCIRB staff recommends an increase in the threshold for Classifications 5185/5186 from \$32 to \$33.

Classifications 5201/5205, Concrete or Cement Work

The current threshold for Classifications 5201/5205, *Concrete or Cement Work*, is \$32. This threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$32 dual wage threshold effective in 2022 is 59% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5201/5205 workers with wages approximated at the threshold level from the policy incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 4.7% over the entire period (Exhibit 8.1). Applying the estimated wage inflation to the current \$32 threshold results in an indicated threshold of \$33.

Under the supplemental method, a \$33 threshold is estimated to increase the low wage payroll share from 26% at the current threshold to 29% while maintaining a loss to payroll differential at around 198% (Exhibit 8.2). Although the maximum incremental increase in the loss to payroll differential under this method occurs at a \$35 threshold, this threshold is significantly higher than the current \$32 threshold. As

also shown in Exhibit 8.2, \$33 has a lower concentration of wages within one dollar of the threshold based on the distribution of injured workers' average weekly wage reported in unit statistical data.

Although the supplemental method suggests a larger increase to a \$35 threshold may be appropriate, the primary method indication of a \$33 threshold is supported by the recent wage inflation in these classifications and is not contra-indicated by the supplemental method. As a result, WCIRB staff recommends an increase in the threshold for Classifications 5201/5205 from \$32 to \$33.

Classifications 5403/5432, Carpentry, and 5632/5633, Steel Framing

Classifications 5632/5633, *Steel Framing*, do not produce sufficient experience to be fully credible on their own and, as a result, are included with Classifications 5403/5432, *Carpentry*, experience for the purpose of classification ratemaking and this analysis of dual wage thresholds. The current threshold for Classifications 5403/5432 and 5632/5633 is \$39. The threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$39 dual wage threshold effective in 2022 is 73% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5403/5432 and 5632/5633 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 5.6% over the entire period (Exhibit 9.1). Applying the estimated wage inflation to the current \$39 threshold results in an indicated threshold of \$41.

Under the supplemental method, a \$41 threshold is estimated to increase the low wage payroll share from 34% at the current threshold to 37% and increase the loss to payroll differential from 228% to 240% (Exhibit 9.2). A \$41 threshold is estimated to obtain the largest incremental increase (9%) in the loss to payroll differential compared to other alternative thresholds. Also as shown in Exhibit 9.2, there does not appear to be a significant concentration of wages within one dollar of the \$41 threshold based on the distribution of injured workers' average weekly wage as reported in unit statistical data.

As the primary method indication of \$41 is well supported by the supplemental method, WCIRB staff recommends an increase in the threshold for Classifications 5403/5432 and 5632/5633 from \$39 to \$41.

Classifications 5446/5447, Wallboard Installation

The current threshold for Classifications 5446/5447, *Wallboard Installation*, is \$38. The threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$38 dual wage threshold effective in 2022 is 68% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5446/5447 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 8.0% over the entire period (Exhibit 10.1). Applying the estimated wage inflation to the current \$38 threshold results in an indicated threshold of \$41.

Under the supplemental method, a \$41 threshold is estimated to increase the low wage payroll share from 33% at the current threshold to 40% and the loss to payroll differential from 212% to 229% (Exhibit 10.2). A \$41 threshold is estimated to obtain the largest incremental increase (10%) in the loss to payroll differential compared to other alternative thresholds. As also shown in Exhibit 10.2, there is a low concentration of wages within one dollar of the \$41 threshold based on the distribution of injured workers' average weekly wage reported in unit statistical data.

As the primary method indication of \$41 is well supported by the supplemental method, WCIRB staff recommends an increase in the threshold for Classifications 5446/5447 from \$38 to \$41.

Classifications 5467/5470, Glaziers

The current threshold for Classifications 5467/5470, *Glaziers*, is \$36. This threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$36 dual wage threshold effective in 2022 is 64% based on the OEWS wage distribution in 2022. Changes in wage levels around the threshold for 2020 through 2022 during the pandemic period based on the OEWS data for these classifications appear atypical, with high inflation in 2020 and 2022 and deflation in 2021 (Exhibit 11.1). Extrapolating this data to the future in the primary method results in an indicated threshold of \$37. However, the recent volatile wage inflation pattern may not be indicative of future wage inflation for these classifications.

The WCIRB reviewed alternative wage sources for these classifications including prevailing wage determinations made by the DIR. This information suggests modest growth in wages for these classifications with some further growth projected (Exhibit 11.1). Based on the DIR's prevailing wage information, wage inflation for Classifications 5467/5470 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 7.6% over the entire period (Exhibit 11.2). Applying the estimated wage inflation to the current \$36 threshold results in an indicated threshold of \$39.

Under the supplemental method, a \$39 threshold is estimated to increase the low wage payroll share from 28% at the current threshold to 34% and increase the loss to payroll differential from 216% to 238% (Exhibit 11.3). A \$39 threshold is estimated to produce the largest incremental increase (11%) in the loss to payroll differential compared to other alternative thresholds. In addition, a \$39 threshold is also estimated to slightly lower the concentration of wages within one dollar of the threshold compared to the current threshold of \$36.

Although the primary method based on OEWS data suggests a \$1 increase in the threshold for these classifications, the anomalous wage inflation in the OEWS data for 2020 through 2022 during the pandemic period may not be appropriate to project into the future for these classifications. The supplemental method supports a \$39 threshold, which is also supported by the alternative wage inflation based on DIR prevailing wages. As a result, WCIRB staff recommends an increase in the threshold for Classifications 5467/5470 from \$36 to \$39.

Classifications 5474/5482, *Painting/Waterproofing*

The current threshold for Classifications 5474/5482, *Painting; Waterproofing*, is \$31. The threshold became effective on September 1, 2022, which is selected as the "base year" for this study. The approximate wage percentile corresponding to the \$31 dual wage threshold effective in 2022 is 77% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5474/5482 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 3.6% over the entire period (Exhibit 12.1). Applying the estimated wage inflation to the current \$31 threshold results in an indicated threshold of \$32.

Under the supplemental method, a \$32 threshold is estimated to increase the low wage payroll share from 46% at the current threshold to 50% and increase the loss to payroll differential from 201% to 211% (Exhibit 12.2). As also shown in Exhibit 12.2, \$32 has a lower concentration of wages (7.5%) within one dollar of the threshold based on the distribution of injured workers' average weekly wage reported in unit statistical data.

Given that the primary method indication of \$32 is well supported by the supplemental method, WCIRB staff recommends an increase in the threshold for Classifications 5474/5482 from \$31 to \$32.

Classifications 5484/5485, *Plastering or Stucco Work*

The current threshold for Classifications 5484/5485, *Plastering or Stucco Work*, is \$36. The threshold became effective on September 1, 2022, which is selected as the "base year" for this study. The approximate wage percentile corresponding to the \$36 dual wage threshold effective in 2022 is 80% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5484/5485 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 4.6% over the entire period (Exhibit 13.1). Applying this estimated wage inflation to the current \$36 threshold results in an indicated threshold of \$38.

Under the supplemental method, a \$38 threshold is estimated to increase the low wage payroll share from 49% at the current threshold to 54% and increase loss to payroll differential from 183% to 193% (Exhibit 13.2), with some further increase in the loss to payroll differential one dollar higher at a \$39 threshold. As also shown in Exhibit 13.2, \$38 has a significantly lower concentration of wages within one dollar of the threshold than other alternative thresholds based on the distribution of injured workers' average weekly wage reported in unit statistical data.

Given that the primary method indication of \$38 is well supported by the supplemental method, WCIRB staff recommends an increase in the threshold for Classifications 5484/5485 from \$36 to \$38.

Classifications 5538/5542, Sheet Metal Work/Heating or Air Conditioning Ductwork

The current threshold for Classifications 5538/5542, *Sheet Metal Work/Heating or Air Conditioning Ductwork*, is \$29. The threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$29 dual wage threshold effective in 2022 is 33% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 5538/5542 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 14.2% over the entire period (Exhibit 14.1). Applying this estimated wage inflation to the current \$29 threshold results in an indicated threshold of \$33.

Under the supplemental method, a \$33 threshold is estimated to produce the maximum incremental increase in the loss to payroll differential, leading to an overall increase in the differential from 218% at the current threshold to 232% (Exhibit 14.2). Any threshold lower than \$33, including the current threshold, is estimated to reduce the loss to payroll differential. A \$33 threshold is also estimated to significantly increase the low wage payroll share from 24% to 33%. As shown in Exhibit 14.2, compared to alternative thresholds, \$33 has the lowest concentration of wages within one dollar of the threshold based on the distribution of injured workers’ average weekly wage reported in unit statistical data.

Given that the primary method indication of \$33 is well supported by the supplemental method, WCIRB staff recommends an increase in the threshold for Classifications 5538/5542 from \$29 to \$33.

Classifications 5552/5553, Roofing

The current threshold for Classifications 5552/5553, *Roofing*, is \$29. This threshold became effective on September 1, 2022, which is selected as the “base year” for this study. The approximate wage percentile corresponding to the \$29 dual wage threshold effective in 2022 is 24% based on the OEWS wage distribution in 2022. Changes in wage levels around the threshold for 2022 based on the OEWS data for these classifications reflect significantly higher inflation (15.5%) than the prior three years at around 5% (Exhibit 15.1). Extrapolating this data to the future in the primary method suggests 23% wage inflation over the two-year period and an increase to the current threshold from \$29 to \$36. However, the recent significant increase in wage inflation may not be indicative of future wage inflation for these classifications.

The WCIRB reviewed alternative wage sources for these classifications, including prevailing wage determinations made by the DIR. This information also suggests slightly higher growth in wages for these classifications in 2021 and 2022 than prior years, but the magnitude of the wage growth is more consistent with prior years (Exhibit 15.1). Based on the DIR’s prevailing wage information, wage inflation for Classifications 5552/5553 workers with wages approximated at the threshold level from the policy period incepting September 1, 2022 to the policy period incepting September 1, 2024 is estimated to be 8.3% over the entire period (Exhibit 15.2). Applying the estimated wage inflation to the current \$29 threshold results in an indicated threshold of \$31.

Under the supplemental method, a \$31 threshold is estimated to increase the low wage payroll share from 16% at the current threshold to 22% and increase the loss to payroll differential from 191% to 211% (Exhibit 15.3). While a \$30 threshold is estimated to obtain the maximum incremental increase in the loss to payroll differential compared to the current \$29 threshold, a \$31 threshold further increases the loss to payroll differential by 5%. In addition, a \$31 threshold has a lower concentration of wages within one dollar of the threshold compared to the current \$29 threshold or the \$30 threshold based on the distribution of injured workers’ average weekly wage reported in the unit statistical data (Exhibit 15.3).

Although the primary method based on the OEWS data suggests a \$7 increase in the threshold for these classifications, the wage inflation in the OEWS data for 2022 appears atypical and may not be appropriate to project into the future for these classifications. The primary method indication of \$31 based on the alternative wage inflation in the DIR prevailing wages is supported by the supplemental method. As a result, WCIRB staff recommends an increase in the threshold for Classifications 5552/5553 from \$29 to \$31.

Classifications 6218/6220, Excavation/Grading/Land Leveling; 6307/6308, Sewer Construction, and 6315/6316, Water/Gas Mains

In 2006, as part of the dual wage threshold study for Classifications 6307/6308, *Sewer Construction*, and 6315/6316, *Water/Gas Mains*, WCIRB staff noted that it was not unusual for employers to engage in operations using the same employees assignable to Classifications 6218/6220, *Excavation/Grading/Land Leveling*, and 6307/6308 and/or 6315/6316. Given concerns over disparate thresholds potentially applicable to the same workers engaged in more than one of these types of operations, the experience of Classifications 6307/6308 and 6315/6316 were included with the experience of Classifications 6218/6220 in subsequent dual wage threshold analyses and a single threshold is applied to all these classifications.

The current threshold for Classifications 6218/6220, 6307/6308 and 6315/6316 is \$38. The threshold became effective on September 1, 2023, which is selected as the “base year” for this study.³ The approximate wage percentile corresponding to the current dual wage threshold effective in 2023 is 63% based on the OEWS wage distribution in 2022. Wage inflation for Classifications 6218/6220, 6307/6308 and 6315/6316 workers with wages approximated at the threshold level from the policy period incepting from September 1, 2023 to the policy period incepting September 1, 2024 is estimated to be 5% (Exhibit 16.1). Applying this estimated wage inflation to the current \$38 threshold results in an indicated threshold of \$40.

Under the supplemental method, a \$40 threshold is estimated to increase the low wage payroll share from 23% at the current threshold to 26% and the loss to payroll differential from 196% to 201% (Exhibit 16.2). A \$40 threshold is estimated to obtain a significant incremental increase (9%) in the loss to payroll differential, and a lower threshold (\$39) is estimated to reduce the differential (-3%) compared to the current threshold. As also shown in Exhibit 16.2, there is a smaller concentration of wages within one dollar of the \$40 threshold compared to lower thresholds based on the distribution of injured workers’ average weekly wage reported in unit statistical data.

Given that the primary method indication of \$40 is well supported by the supplemental method, WCIRB staff recommends an increase in the threshold for Classifications 6218/6220, 6307/6308 and 6315/6316 from \$38 to \$40.

³ The thresholds for Classifications 6218/6220, 6307/6308 and 6315/6316 was changed to \$39 effective September 1, 2022 after the most recent comprehensive review of all dual wage classifications in 2021. However, after validating and incorporating employer feedback on revising occupation mapping for Classification 6218/6220 to include construction laborers (Exhibit 3), WCIRB staff recommended a \$1 decrease from the \$39 threshold to be effective September 1, 2023. The recommendation was approved by Insurance Commissioner.

Table 1 summarizes the dual wage classification threshold recommendations to be effective September 1, 2024.

Table 1 – Dual Wage Classification Threshold Recommendations				
Dual Wage Classifications	Current Threshold Effective Year	Current Threshold	9/1/2024 Recommended Threshold Change	9/1/2024 Recommended Threshold
5027/5028, <i>Masonry</i>	2022	\$32	+\$3	\$35
5190/5140, <i>Electrical Wiring</i>	2022	\$34	+\$2	\$36
5183/5187, <i>Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment</i>	2022	\$31	+\$1	\$32
5185/5186, <i>Automatic Sprinkler Installation</i>	2022	\$32	+\$1	\$33
5201/5205, <i>Concrete or Cement Work</i>	2022	\$32	+\$1	\$33
5403/5432, <i>Carpentry</i>	2022	\$39	+\$2	\$41
5446/5447, <i>Wallboard Installation</i>	2022	\$38	+\$3	\$41
5467/5470, <i>Glaziers</i>	2022	\$36	+\$3	\$39
5474/5482, <i>Painting/Waterproofing</i>	2022	\$31	+\$1	\$32
5484/5485, <i>Plastering or Stucco Work</i>	2022	\$36	+\$2	\$38
5538/5542, <i>Sheet Metal Work/Heating or Air Conditioning Ductwork</i>	2022	\$29	+\$4	\$33
5552/5553, <i>Roofing</i>	2022	\$29	+\$2	\$31
5632/5633, <i>Steel Framing</i>	2022	\$39	+\$2	\$41
6218/6220, <i>Excavation/Grading/Land Leveling</i>	2023	\$38	+\$2	\$40
6307/6308, <i>Sewer Construction</i>	2023	\$38	+\$2	\$40
6315/6316, <i>Water/Gas Mains</i>	2023	\$38	+\$2	\$40

Appendix I

Technical Overview of Methods

This study of dual wage classifications incorporated a variety of data and approaches. The primary method used to determine the indicated dual wage threshold for each classification was based on adjusting the classification's current threshold to the projected wage level underlying policies incepting between September 1, 2024 and August 31, 2025 based on the changes in the distribution of wages by occupation. A supplemental method was used to determine the indicated threshold by analyzing unit statistical payroll and loss data to project changes in the statistical viability of the classification at different thresholds. For each method, alternative assumptions and sources of wage inflation were also reviewed for sensitivity testing. Each of the methods reviewed is summarized below.

Primary Method – Changes in Wage Levels

Prior studies of dual wage classification thresholds included an analysis of various wage inflation measures for the construction sector in California. In many cases, this data was based on average wages for the construction sector in California as a whole or for select occupations within each classification and did not contemplate how structural changes within the classification may impact the wages within the classification and the indicated dual wage threshold. For example, during the Great Recession, a disproportionate reduction in the number of lower wage construction employees shifted the total wage distribution upward which resulted in increases in measures of aggregate average wages, even if the typical worker was not experiencing increased wages. A similar shift in the wage distribution occurred during the COVID-19 economic slowdown in 2020.

The OEWS data published by the BLS includes wage information for a variety of construction occupations within California. The data is published by various wage percentiles, which allows for an analysis of the distribution of wages within an occupation in addition to average wages. The data is also available to the public and relatively current, with the most recent data including wage information through May of 2022.⁴ Other sources of wage inflation such as average annual wages based on information published by the BLS, changes in prevailing wage determinations made by the DIR, and annual wage information published by the U.S. Census Bureau's American Community Survey in conjunction with unit statistical report payroll data reported to the WCIRB were also reviewed. In general, these other sources of wage information were not as comprehensive, consistent or readily available as the OEWS data.

In order to project how changes in the wage distribution impact the dual wage threshold for a classification, a "base year" was selected for each classification to form the basis from which the changes will apply. In the current review, the "base year" for all dual wage classifications was the year in which the classification's current dual wage threshold became effective. Alternative "base years" for classifications were also reviewed for sensitivity testing. The "base year" selected for each classification is shown in Exhibit 2 and discussed in more detail by classification in the Dual Wage Classification Study Results section.

The OEWS data is published on an occupation basis. As a result, to use this information, each dual wage classification was mapped to one or more of the occupations published in the OEWS data. This mapping was updated in the current study based on an in-depth review by the WCIRB as well as employer feedback and is shown in Exhibit 3.⁵ For classifications that mapped to more than one OEWS occupation, a wage distribution for the classification as a whole was determined based on a weighted average of the OEWS wages for each of the mapped occupations using OEWS employment counts for the occupations as the weights. Additional adjustments to the weights were made for occupations (e.g., construction laborers and operating engineers) that spread across different construction trades to ensure the

⁴ The OEWS data is published each March/April based on data up through May of the preceding year. The data is based on a semiannual survey of occupational employment and wage rates. Each data update is based on three survey years; however, prior survey years are adjusted to the most recent survey level. See www.bls.gov/OES/home.htm for more information.

⁵ Since the completion of the prior study, Occupation 49-9021, Heating, Air Conditioning and Refrigeration Mechanics and Installers was added to the occupation mapping for Classifications 5183/5187, *Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment*; Occupation 47-2221, Structural Iron and Steel Workers was added to the occupation mapping for Classifications 5632/5633, *Steel Framing*; and Occupation 47-2061, Construction Laborers was added to the occupation mapping for Classifications 6218/6220, *Excavation/Grading/Land Leveling*.

occupation mapping reflects the occupation mix in the construction classifications. The adjustments were based on the distribution of payroll reported to the WCIRB by classifications mapped to the specific OEWS occupations.

The approximate wage percentile corresponding to the current dual wage threshold for each classification was determined based on the OEWS wage distribution for the classification's "base year" using linear interpolation. The impact of changes in the wage distribution on the dual wage threshold was projected based on changes in the wage corresponding to that percentile in the base year. In other words, each dual wage threshold was inflated by a weighted average inflation factor determined by changes in the wage levels for the published OEWS wage percentiles immediately above and below the percentile corresponding to base year dual wage threshold. In this way, each dual wage threshold is adjusted by changes in wage levels for workers close to the threshold level based on changes in the distribution of wages rather than relying on all-worker aggregate averages.

The dual wage classification thresholds proposed in this study will be proposed to become effective September 1, 2024. However, the OEWS data and other historical wage data is only available through 2022. If the proposed dual wage threshold for the classification is not adjusted for estimated wage inflation through 2024 and 2025, the viability of the threshold may already have eroded once it becomes effective. A number of sources of future wage projections were reviewed, including (a) linear extrapolation of the OEWS data from September 1, 2023 (the approximate midpoint of exposure from policies incepting between September 1, 2022 and August 31, 2023) to September 1, 2025 (the approximate midpoint of exposure from policies incepting between September 1, 2024 and August 31, 2025), (b) predetermined increases in prevailing wage determinations made by the DIR⁶ and (c) predictive wage models developed by the WCIRB for research and classification ratemaking purposes. Many of these sources were based on aggregate wages for all workers in the industry and did not contemplate wage inflation at or near the dual wage threshold for the classification, which can differ significantly by occupation. As a result, wage inflation from September 1, 2023 through September 1, 2025 was projected primarily based on a review of recent growth in wages at the OEWS percentile mapped to that classification. For the majority of classifications, future projected growth in wages was based on the average annual rate of growth in 2021 and 2022 using linear extrapolation. For some classifications in which wage growth at the mapped percentiles showed anomalous patterns or was inconsistent with the prior years, the alternative wage inflation methods were relied upon more heavily. The actual wage inflation projected for each classification is discussed in more detail in the Dual Wage Classification Study Results section.

The results for this method for each classification are summarized in Exhibits 4 through 16 and discussed in the Dual Wage Classification Study Results section.

Supplemental Method – Unit Statistical Payroll and Loss Analysis

The supplemental method provides validation and support of the proposed dual wage threshold for each pair of dual wage classifications and is based on a detailed analysis of how changes in the thresholds would directly impact various characteristics of the classifications using unit statistical payroll, loss, and wage information reported to the WCIRB. This method is comparable in approach to the method used in prior WCIRB studies of dual wage thresholds that were based on employer wage survey data. It differs from the studies completed prior to 2019 in that reported injured worker weekly wages were used in lieu of employer surveyed wage information for all the employer's employees in the dual wage classifications. In addition, this approach allows for an analysis of a broader group of employers within all dual wage classifications rather than a small select group of employers from which surveys were received.

Unit statistical report payroll, loss, and wage data from the most recent four policy years (2017 through 2020) were contemplated for each dual wage classification. For smaller classifications for which four years of data were not statistically credible, up to five additional policy years (2012 through 2016) were used to ensure the loss and payroll data was fully credible for the analysis. In order to compare the data on a consistent level, reported payroll and injured worker wages were adjusted to the level underlying

⁶ Each year, the DIR sets prevailing wages for construction workers employed in public works projects. The rates may also include future predetermined increases based on collective bargaining agreements. These rates differ widely by region and occupation. When reviewing prevailing wages for the alternative inflation method, the rates were weighted to best reflect the distribution of exposures by region and occupation present in WCIRB data.

policies incepting between September 1, 2024 and August 31, 2025. Wage inflation was based on the average annual wage change in the prevailing wage data by the DIR. Losses were developed to a tenth unit statistical report level and adjusted to a consistent (policy year 2020) benefit level.⁷ Losses were also capped at \$500,000 per claim in order to limit the impact of large claims in the analysis. Each of these adjustments was sensitivity tested to ensure that it did not materially affect the overall results.

Payroll and losses are reported to the WCIRB in the low or high wage classification based on the threshold in effect for that year. While the dual wage threshold is based on an hourly wage, injured worker wages are reported to the WCIRB at an average weekly wage level. In order to translate the hourly wage threshold into a weekly wage equivalent, distributions of injured worker weekly wages reported in the low wage and high wage classifications were compared. For each pair of classifications, there existed a distinct weekly wage cutoff point which maximized the proportion of claims reported in the low wage classification below this wage and the proportion of claims reported in the high wage classification above this wage. This wage level was determined to be the “modal” weekly wage corresponding to the dual wage threshold in effect for that year for that classification. The corresponding number of hours worked at the hourly dual wage threshold required to produce this weekly wage was found to be generally comparable to average numbers of hours worked per week in the construction sector based on BLS data.

For the dual wage classifications, changes to the dual wage threshold occurred over time in the data used for this analysis. In order to analyze the impact of changes to the current threshold in this method, each historical policy year’s data was adjusted to the current threshold level. For claim data, the weekly wage reported on the claim was compared to the estimated weekly wage corresponding to the current threshold. Claims with wages that fell below the current threshold were then assigned to the low wage classification. For payroll, the distribution of payroll between the low wage and high wage classifications was compared to the distribution of total injured worker wages between the low wage and high wage classifications. Although a significantly higher proportion of injured worker wages are reported in the low wage classification, the relative difference (relativity) between the injured worker wage and overall employee payroll distributions was generally consistent over time. As a result, the payroll distribution was adjusted to the current dual wage threshold level based on applying that relativity to the distribution of injured worker wages after adjusting the claims to the current threshold level for each policy year.

In some cases, workers making at or close to the dual wage threshold hourly rate will have reported weekly wages below or above the “modal” weekly wage corresponding to the dual wage threshold due to working a number of hours fewer or greater than those needed to generate the “modal” weekly wage during the week of injury. Losses with this characteristic were adjusted for changes in the dual wage threshold based on the proportion of data adjusted at the “modal” weekly wage level. This refinement to the method was sensitivity tested and had an overall minor impact on the results.

Once losses and payroll were adjusted to the current dual wage threshold level, the amounts were further adjusted to reflect estimated wage inflation from the year they were reported to the projected level underlying policies incepting between September 1, 2024 and August 31, 2025. Each claim’s reported weekly wage was adjusted to the projected level based on changes in the average annual wages in the DIR’s prevailing wages data. If the injured worker’s weekly wage adjusted to the projected level was above the current dual wage threshold, the claim was assigned to the high wage classification. Part-time and overtime wages were also adjusted based on the process described above. Payroll was likewise adjusted based on the relativity of the payroll distribution compared to the injured worker wage distribution, as described above.

Once losses and payroll had been adjusted to the current dual wage threshold level and the projected wage level, information on (a) the estimated proportion of payroll in the low and high wage classifications, (b) the loss to payroll ratio differential estimated between the low and high wage classifications and (c) the estimated concentration of wages at the threshold was compiled. These statistics at the current threshold were compared to their equivalents at the dual wage threshold indicated by the primary method as well as potential alternative thresholds (the process for adjusting the data to an alternative dual wage threshold is identical to the process for adjusting to the current threshold described above). In general,

⁷ Loss development and benefit level adjustment factors were based on those underlying that classification’s relativity in the WCIRB’s September 1, 2023 Regulatory Filing. See Part A, Section C, Appendix C of that filing for more information.

alternative thresholds were reviewed to ensure (a) a credible distribution of payroll between the low wage and high wage classifications, (b) maximization of the incremental increase in the loss to payroll ratio differential and (c) no significant concentration of worker wages near the threshold.

The results for this method for each classification are summarized in Exhibits 4 through 16 and discussed in the Dual Wage Classification Study Results section.

Dual Wage Classification Thresholds by Policy Year

Policy Year	Classifications																	
	5027	5190	5183	5185	5201	5403	5446	5467	5474	5484	5538	5552	5630	5632	5645	6218	6307	6315
	5028	5140	5187	5186	5205	5432	5447	5470	5482	5485	5542	5553	5631	5633	5697	6220	6308	6316
2023	\$32	\$34	\$31	\$32	\$32	\$39	\$38	\$36	\$31	\$36	\$29	\$29	n/a	\$39	n/a	\$38	\$38	\$38
2022	\$32	\$34	\$31	\$32	\$32	\$39	\$38	\$36	\$31	\$36	\$29	\$29	n/a	\$39	n/a	\$39	\$39	\$39
2021	\$28	\$32	\$28	\$29	\$28	\$35	\$36	\$33	\$28	\$32	\$27	\$27	n/a	\$35	n/a	\$34	\$34	\$34
2020	\$28	\$32	\$28	\$29	\$28	\$35	\$36	\$33	\$28	\$32	\$27	\$27	n/a	\$35	n/a	\$34	\$34	\$34
2019	\$27	\$32	\$26	\$27	\$25	\$32	\$34	\$32	\$26	\$29	\$27	\$25	n/a	\$32	n/a	\$31	\$31	\$31
2018	\$27	\$32	\$26	\$27	\$25	\$32	\$34	\$31	\$26	\$29	\$27	\$25	n/a	\$32	n/a	\$31	\$31	\$31
2017	\$27	\$30	\$26	\$27	\$24	\$30	\$33	\$31	\$24	\$27	\$27	\$23	n/a	\$30	n/a	\$30	\$30	\$30
2016	\$27	\$30	\$26	\$27	\$24	\$30	\$33	\$31	\$24	\$27	\$27	\$23	n/a	\$30	n/a	\$30	\$30	\$30
2015	\$27	\$30	\$26	\$27	\$24	\$29	\$31	\$29	\$24	\$27	\$27	\$23	n/a	\$29	n/a	\$30	\$30	\$30
2014	\$27	\$30	\$26	\$27	\$24	\$29	\$31	\$29	\$24	\$27	\$27	\$23	n/a	\$29	n/a	\$30	\$30	\$30
2013	\$27	\$28	\$24	\$27	\$24	\$29	\$31	\$29	\$24	\$25	\$25	\$23	\$26	\$29	n/a	\$26	\$26	\$26
2012	\$24	\$28	\$24	\$27	\$24	\$26	\$26	\$26	\$24	\$25	\$25	\$23	\$26	\$26	n/a	\$26	\$26	\$26
2011	\$24	\$28	\$24	\$27	\$24	\$26	\$26	\$26	\$24	\$25	\$25	\$23	\$26	\$26	\$26	\$26	\$26	\$26
2010	\$24	\$28	\$24	\$27	\$24	\$26	\$26	\$26	\$24	\$25	\$25	\$23	\$26	\$26	\$26	\$26	\$26	\$26
2009	\$24	\$28	\$24	\$27	\$24	\$26	\$26	\$26	\$24	\$25	\$25	\$23	\$26	\$26	\$26	\$26	\$26	\$26
2008	\$23	\$27	\$24	\$26	\$23	\$25	\$25	\$25	\$23	\$24	\$24	\$22	\$25	\$25	\$25	\$25	\$25	\$25
2007	\$22	\$26	\$23	\$25	\$22	\$24	\$24	\$24	\$22	\$23	\$23	\$21	\$24	\$24	\$24	\$25	\$24	\$24
2006	\$21	\$25	\$23	\$24	\$21	\$23	\$23	\$23	\$21	\$22	\$22	\$20	\$23	\$23	\$23	\$25	\$23	\$23
2005	\$21	\$25	\$23	\$24	\$21	\$23	\$23	\$23	\$21	\$22	\$22	\$20	\$23	\$23	\$23	\$25	\$23	\$23
2004	\$21	\$25	\$23	\$24	\$21	\$23	\$23	\$23	\$20	\$22	\$22	\$20	\$23	\$23	\$23	\$25	\$23	\$23
2003	\$20	\$24	\$22	\$23	\$20	\$22	\$22	\$22	\$20	\$21	\$21	\$20	\$22	\$22	\$22	\$24	\$22	\$22
2002	\$20	\$23	\$22	\$23	\$20	\$22	\$22	\$22	\$19	\$21	\$21	\$20	\$22	\$22	\$22	\$24	\$22	\$22
2001	\$19	\$22	\$21	\$22	\$19	\$21	\$21	\$21	\$19	\$20	\$20	\$19	\$21	\$21	\$21	\$23	\$21	\$21
2000	\$19	\$22	\$21	\$22	\$19	\$21	\$21	\$21	\$19	\$20	\$20	\$19	\$20	\$20	\$21	\$23	\$21	\$21
1999	\$18	\$21	\$20	\$21	\$18	\$20	\$20	\$20	\$19	\$19	\$19	\$18	\$20	\$20	\$20	\$22	\$20	\$20
1998	\$18	\$21	\$20	\$21	\$18	\$20	\$20	\$20	\$19	\$19	\$19	\$18	\$20	\$20	\$20	\$22	\$20	\$20
1997	\$18	\$21	\$20	\$21	\$18	\$20	\$20	\$20	\$19	\$19	\$19	\$18	\$20	\$20	\$20	\$22	\$20	\$20
1996	\$17	\$21	\$20	\$21	\$17	\$20	\$19	\$19	\$18	\$18	\$19	\$17	\$20	\$20	\$20	\$21	\$19	\$19
1995	\$17	\$20	\$19	\$21	\$17	\$19	\$19	\$19	\$18	\$18	\$18	\$17	n/a	n/a	\$19	\$21	\$19	\$19
1994	\$17	\$20	\$19	n/a	\$17	\$19	\$19	\$19	\$18	\$18	\$18	\$17	n/a	n/a	\$19	\$21	\$19	\$19
1993	\$17	\$20	\$19	n/a	\$17	\$19	\$19	\$19	\$18	\$18	\$18	\$17	n/a	n/a	\$19	\$21	\$19	\$19
1992	\$17	\$19	\$18	n/a	\$17	\$19	\$19	\$19	\$18	\$18	\$17	\$17	n/a	n/a	\$19	\$21	\$19	\$19
1991	n/a	\$19	\$18	n/a	n/a	\$18	n/a	n/a	\$18	n/a	\$17	n/a	n/a	n/a	\$18	n/a	n/a	n/a
1990	n/a	\$18	\$18	n/a	n/a	\$17	n/a	n/a	\$17	n/a	\$16	n/a	n/a	n/a	\$17	n/a	n/a	n/a
1989	n/a	\$18	\$18	n/a	n/a	\$17	n/a	n/a	\$17	n/a	\$16	n/a	n/a	n/a	\$17	n/a	n/a	n/a
1988	n/a	\$18	\$17	n/a	n/a	\$17	n/a	n/a	\$17	n/a	\$16	n/a	n/a	n/a	\$17	n/a	n/a	n/a
1987	n/a	\$18	\$17	n/a	n/a	\$17	n/a	n/a	\$17	n/a	\$16	n/a	n/a	n/a	\$17	n/a	n/a	n/a
1986	n/a	\$18	\$17	n/a	n/a	\$17	n/a	n/a	\$17	n/a	\$16	n/a	n/a	n/a	\$17	n/a	n/a	n/a

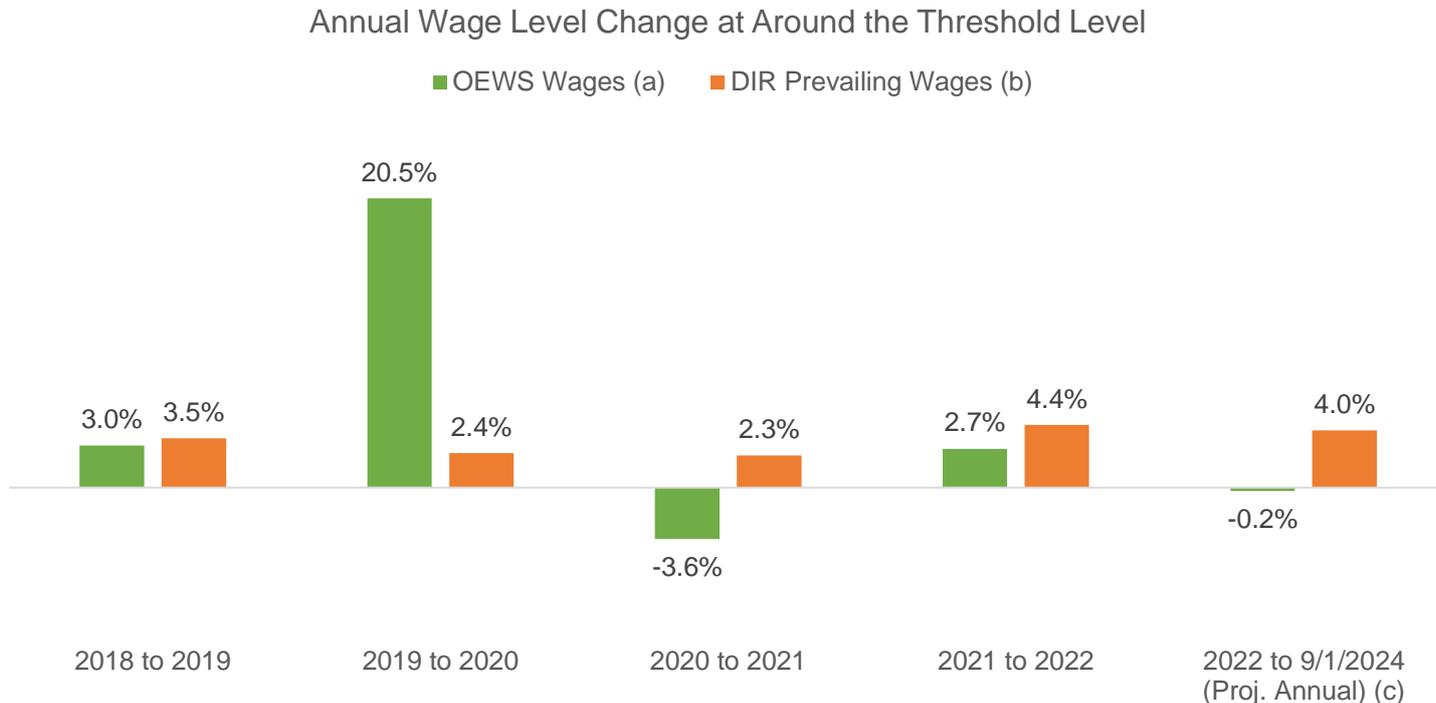
Selected "Base Year" for Each Dual Wage Classification Pair

Dual Wage Classifications	Base Year	Rationale for Selection
5027/5028, <i>Masonry</i>	2022	Effective year for which most recent threshold was adopted.
5190/5140, <i>Electrical Wiring</i>	2022	Effective year for which most recent threshold was adopted.
5183/5187, <i>Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment</i>	2022	Effective year for which most recent threshold was adopted.
5185/5186, <i>Automatic Sprinkler Installation</i>	2022	Effective year for which most recent threshold was adopted.
5201/5205, <i>Concrete or Cement Work</i>	2022	Effective year for which most recent threshold was adopted.
5403/5432, <i>Carpentry</i>	2022	Effective year for which most recent threshold was adopted.
5446/5447, <i>Wallboard Installation</i>	2022	Effective year for which most recent threshold was adopted.
5467/5470, <i>Glaziers</i>	2022	Effective year for which most recent threshold was adopted.
5474/5482, <i>Painting/Waterproofing</i>	2022	Effective year for which most recent threshold was adopted.
5484/5485, <i>Plastering or Stucco Work</i>	2022	Effective year for which most recent threshold was adopted.
5538/5542, <i>Sheet Metal Work/Heating or Air Conditioning Ductwork</i>	2022	Effective year for which most recent threshold was adopted.
5552/5553, <i>Roofing</i>	2022	Effective year for which most recent threshold was adopted.
5632/5633, <i>Steel Framing</i>	2022	Effective year for which most recent threshold was adopted.
6218/6220, <i>Excavation/Grading/Land Leveling</i>	2023	Effective year for which most recent threshold was adopted.
6307/6308, <i>Sewer Construction</i>	2023	Effective year for which most recent threshold was adopted.
6315/6316, <i>Water/Gas Mains</i>	2023	Effective year for which most recent threshold was adopted.

Mapping of Dual Wage Classification to OES Occupations

Dual Wage Classifications	Mapped OES Occupations
5027/5028, <i>Masonry</i>	47-2021, Brickmasons and Blockmasons 47-2022, Stonemasons
5190/5140, <i>Electrical Wiring</i>	47-2111, Electricians
5183/5187, <i>Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment</i>	47-2152, Plumbers, Pipefitters, and Steamfitters 49-9021, Heating, Air Conditioning, and Refrigeration Mechanics and Installers
5185/5186, <i>Automatic Sprinkler Installation</i>	47-2151, Pipelayers 47-2152, Plumbers, Pipefitters, and Steamfitters
5201/5205, <i>Concrete or Cement Work</i>	47-2051, Cement Masons and Concrete Finishers
5403/5432, <i>Carpentry</i>	47-2031, Carpenters
5446/5447, <i>Wallboard Installation</i>	47-2081, Drywall and Ceiling Tile Installers 47-2082, Tapers
5467/5470, <i>Glaziers</i>	47-2121, Glaziers
5474/5482, <i>Painting/Waterproofing</i>	47-2141, Painters, Construction and Maintenance 47-2142, Paperhangers
5484/5485, <i>Plastering or Stucco Work</i>	47-2161, Plasterers and Stucco Masons
5538/5542, <i>Sheet Metal Work/Heating or Air Conditioning Ductwork</i>	47-2211, Sheet Metal Workers
5552/5553, <i>Roofing</i>	47-2181, Roofers
5632/5633, <i>Steel Framing</i>	47-2221, Structural Iron and Steel Workers (Data is combined with Carpentry)
6218/6220, <i>Excavation/Grading/Land Leveling</i>	47-2061, Construction Laborers 47-2073, Operating Engineers and Other Construction Equipment Operators
6307/6308, <i>Sewer Construction</i>	47-2151, Pipelayers (Data is combined with Excavation)
6315/6316, <i>Water/Gas Mains</i>	47-2151, Pipelayers (Data is combined with Excavation)

Classifications 5027/5028, Masonry
Changes in OEWS/DIR Prevailing Wage at Around the Threshold Level



- (a) Based on the current dual wage threshold of \$32 mapped to the 54th percentile based on the BLS OEWS data (see Exhibit 4.2).
- (b) Based on prevailing wage determinations adopted by the DIR. The rates may also include future predetermined increases based on collective bargaining agreements. These rates were weighted by region and occupation to best reflect the distribution of exposures by region and occupation for the classification.
- (c) OEWS Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022 using linear extrapolation.
 DIR Prevailing Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the weighted predetermined increases in prevailing wages made by the DIR as of February 2023.

Classifications 5027/5028, Masonry
Primary Method: Changes in Wage Levels - Using Prevailing Wage Data

Current Dual Wage Threshold:	\$32
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	54%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	8.3%
Primary Method Indicated Threshold (d):	\$35

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change of the prevailing wage by the DIR.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5027/5028, Masonry
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$32
 Weekly Wage Corresponding to Current Threshold (a): \$1,114

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$30	\$1,045	8.3%	30.5%	2.0%	208%	-4.4%
\$31	\$1,079	7.9%	33.1%	2.7%	201%	-6.3%
\$32	\$1,114	7.2%	35.1%	2.0%	196%	-5.3%
\$33	\$1,149	4.1%	37.9%	2.9%	197%	1.0%
\$34	\$1,184	7.8%	40.3%	2.3%	205%	7.7%
\$35	\$1,219	7.5%	42.5%	2.2%	223%	18.1%
\$36	\$1,254	6.1%	44.1%	1.6%	228%	5.5%

Supplementary Method Indicated Threshold (c): **\$35**

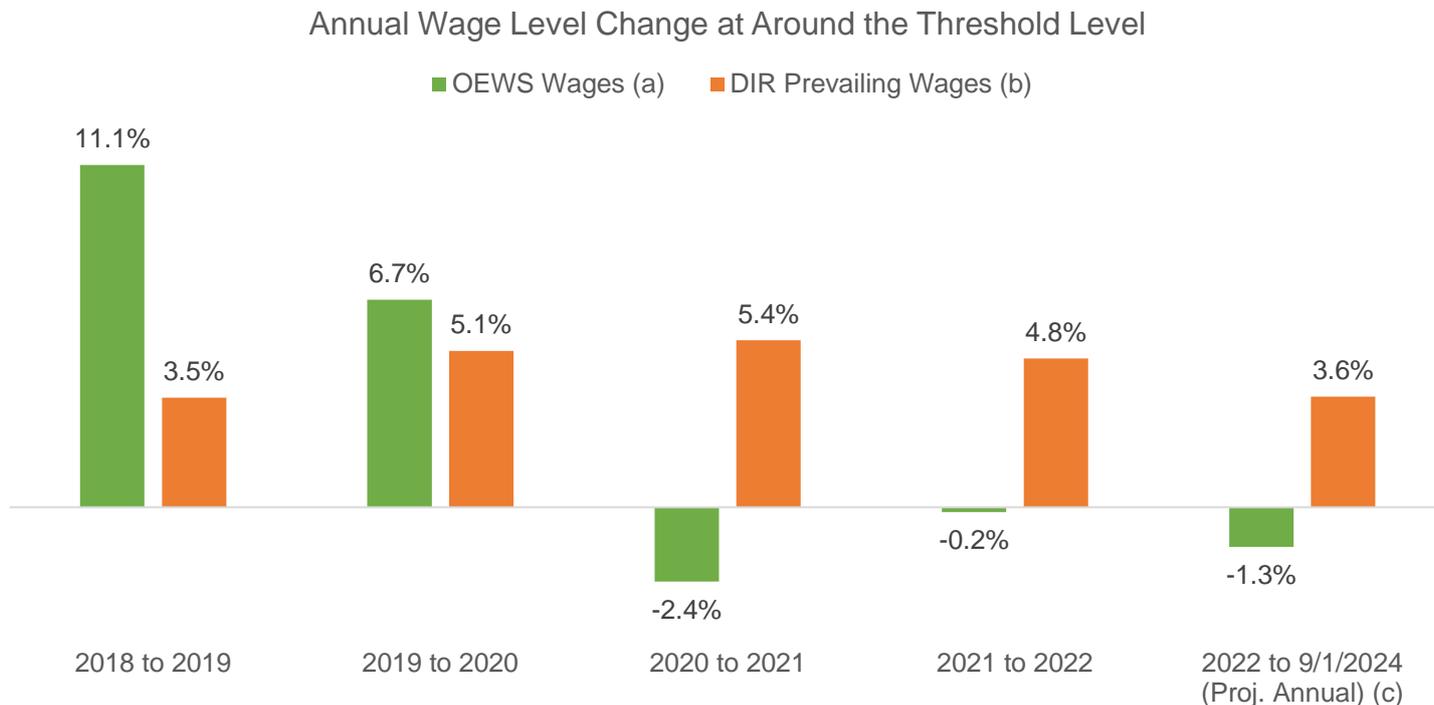
Source: WCIRB unit statistical data from policy years 2014 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5190/5140, *Electrical Wiring*
Changes in OEWS/DIR Prevailing Wage at Around the Threshold Level



- (a) Based on the current dual wage threshold of \$34 mapped to the 50th percentile based on the BLS OEWS data (see Exhibit 5.2).
- (b) Based on prevailing wage determinations adopted by the DIR. The rates may also include future predetermined increases based on collective bargaining agreements. These rates were weighted by region and occupation to best reflect the distribution of exposures by region and occupation for the classification.
- (c) OEWS Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022 using linear extrapolation.
 DIR Prevailing Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the weighted predetermined increases in prevailing wages made by the DIR as of February 2023.

Classifications 5190/5140, *Electrical Wiring*
Primary Method: Changes in Wage Levels - Using Prevailing Wage Data

Current Dual Wage Threshold:	\$34
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	50%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	7.3%
Primary Method Indicated Threshold (d):	\$36

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change of the prevailing wage by the DIR.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5190/5140, Electrical Wiring
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$34
 Weekly Wage Corresponding to Current Threshold (a): \$1,275

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$32	\$1,200	4.8%	19.7%	1.8%	182%	1.5%
\$33	\$1,238	6.5%	21.6%	1.9%	183%	0.7%
\$34	\$1,275	6.9%	22.9%	1.3%	186%	2.9%
\$35	\$1,313	5.0%	25.2%	2.3%	186%	-0.1%
\$36	\$1,350	5.5%	27.2%	2.0%	187%	0.9%
\$37	\$1,388	7.2%	29.5%	2.3%	190%	3.0%
\$38	\$1,425	5.9%	31.2%	1.7%	197%	7.2%

Supplementary Method Indicated Threshold (c): **\$38**

Source: WCIRB unit statistical data from policy years 2017 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

**Classifications 5183/5187,
Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment
Primary Method: Changes in Wage Levels**

Current Dual Wage Threshold:	\$31
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	52%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	2.5%
Primary Method Indicated Threshold (d):	\$32

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

**Classifications 5183/5187,
Plumbing/Refrigeration Equipment/Heating or Air Conditioning Equipment
Supplemental Method: Unit Statistical Payroll and Loss Analysis**

Current Dual Wage Threshold: \$31
Weekly Wage Corresponding to Current Threshold (a): \$1,218

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$29	\$1,139	7.9%	22.9%	2.1%	219%	1.4%
\$30	\$1,179	8.1%	24.7%	1.9%	222%	2.4%
\$31	\$1,218	8.1%	26.9%	2.2%	223%	1.4%
\$32	\$1,257	7.8%	29.1%	2.2%	226%	3.0%
\$33	\$1,296	6.8%	31.0%	1.9%	231%	4.6%
\$34	\$1,336	5.6%	33.1%	2.1%	241%	10.2%
\$35	\$1,375	7.8%	34.8%	1.7%	243%	1.7%

Supplementary Method Indicated Threshold (c): **\$34**

Source: WCIRB unit statistical data from policy years 2017 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5185/5186, Automatic Sprinkler Installation
Primary Method: Changes in Wage Levels

Current Dual Wage Threshold:	\$32
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	53%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	2.6%
Primary Method Indicated Threshold (d):	\$33

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

**Classifications 5185/5186, Automatic Sprinkler Installation
Supplemental Method: Unit Statistical Payroll and Loss Analysis**

Current Dual Wage Threshold: \$32
Weekly Wage Corresponding to Current Threshold (a): \$1,214

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$30	\$1,138	7.1%	26.7%	1.7%	213%	-3.1%
\$31	\$1,176	7.7%	28.6%	1.8%	206%	-7.7%
\$32	\$1,214	7.0%	30.5%	1.9%	208%	2.9%
\$33	\$1,252	6.1%	32.4%	1.9%	233%	24.7%
\$34	\$1,290	5.4%	33.9%	1.5%	259%	25.4%
\$35	\$1,328	6.0%	36.0%	2.1%	249%	-10.0%
\$36	\$1,366	5.6%	39.3%	3.3%	255%	6.8%

Supplementary Method Indicated Threshold (c): **\$33**

Source: WCIRB unit statistical data from policy years 2012 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5201/5205, Concrete or Cement Work
Primary Method: Changes in Wage Levels

Current Dual Wage Threshold:	\$32
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	59%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	4.7%
Primary Method Indicated Threshold (d):	\$33

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5201/5205, Concrete or Cement Work
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$32
 Weekly Wage Corresponding to Current Threshold (a): \$1,229

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$30	\$1,152	8.2%	23.4%	2.0%	199%	2.0%
\$31	\$1,190	7.8%	24.9%	1.5%	195%	-3.2%
\$32	\$1,229	7.8%	26.0%	1.1%	196%	0.2%
\$33	\$1,267	6.6%	28.9%	3.0%	198%	2.6%
\$34	\$1,305	7.2%	30.7%	1.8%	203%	5.2%
\$35	\$1,344	7.8%	32.9%	2.2%	212%	9.2%
\$36	\$1,382	7.2%	35.2%	2.2%	221%	8.2%

Supplementary Method Indicated Threshold (c): **\$35**

Source: WCIRB unit statistical data from policy years 2017 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5403/5432, Carpentry and 5632/5633, Steel Framing
Primary Method: Changes in Wage Levels

Current Dual Wage Threshold:	\$39
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	73%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	5.6%
Primary Method Indicated Threshold (d):	\$41

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

**Classifications 5403/5432, Carpentry and 5632/5633, Steel Framing
Supplemental Method: Unit Statistical Payroll and Loss Analysis**

Current Dual Wage Threshold: \$39
Weekly Wage Corresponding to Current Threshold (a): \$1,365

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$37	\$1,295	5.8%	30.3%	1.1%	224%	6.7%
\$38	\$1,330	5.8%	32.2%	1.9%	229%	5.2%
\$39	\$1,365	7.5%	33.7%	1.5%	228%	-0.7%
\$40	\$1,400	4.6%	35.9%	2.1%	231%	3.2%
\$41	\$1,435	4.8%	37.2%	1.3%	240%	8.9%
\$42	\$1,470	4.5%	39.2%	2.0%	248%	7.3%
\$43	\$1,505	4.3%	40.6%	1.4%	256%	8.2%

Supplementary Method Indicated Threshold (c): **\$41**

Source: WCIRB unit statistical data from policy years 2017 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5446/5447, Wallboard Installation
Primary Method: Changes in Wage Levels

Current Dual Wage Threshold:	\$38
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	68%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	8.0%
Primary Method Indicated Threshold (d):	\$41

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5446/5447, Wallboard Installation
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$38
 Weekly Wage Corresponding to Current Threshold (a): \$1,399

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$36	\$1,325	4.5%	29.7%	2.1%	205%	0.3%
\$37	\$1,362	5.3%	31.7%	2.0%	208%	2.6%
\$38	\$1,399	6.1%	33.3%	1.6%	212%	4.3%
\$39	\$1,435	7.4%	34.7%	1.4%	214%	1.4%
\$40	\$1,472	6.1%	37.4%	2.7%	219%	5.3%
\$41	\$1,509	5.3%	39.7%	2.3%	229%	9.8%
\$42	\$1,546	5.5%	41.4%	1.7%	234%	5.3%

Supplementary Method Indicated Threshold (c): **\$41**

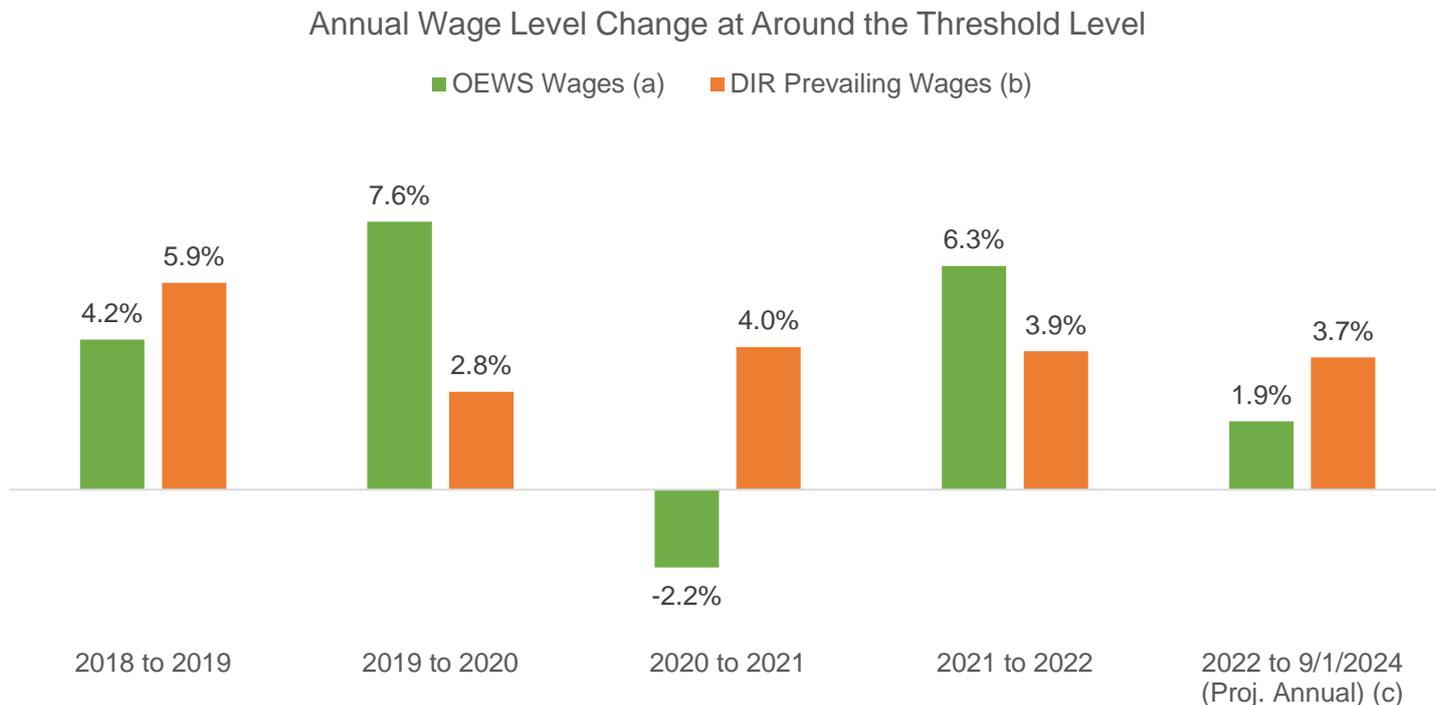
Source: WCIRB unit statistical data from policy years 2017 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5467/5470, Glaziers
Changes in OEWS/DIR Prevailing Wage at Around the Threshold Level



- (a) Based on the current dual wage threshold of \$36 mapped to the 64th percentile based on the BLS OEWS data (see Exhibit 11.2).
- (b) Based on prevailing wage determinations adopted by the DIR. The rates may also include future predetermined increases based on collective bargaining agreements. These rates were weighted by region and occupation to best reflect the distribution of exposures by region and occupation for the classification.
- (c) OEWS Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022 using linear extrapolation.
 DIR Prevailing Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the weighted predetermined increases in prevailing wages made by the DIR as of February 2023.

Classifications 5467/5470, Glaziers
Primary Method: Changes in Wage Levels - Using Prevailing Wage Data

Current Dual Wage Threshold:	\$36
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	64%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	7.6%
Primary Method Indicated Threshold (d):	\$39

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change of the prevailing wage by the DIR.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5467/5470, Glaziers
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$36
 Weekly Wage Corresponding to Current Threshold (a): \$1,418

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$34	\$1,339	3.4%	25.4%	1.3%	214%	-3.3%
\$35	\$1,379	5.8%	26.9%	1.4%	213%	-1.4%
\$36	\$1,418	5.4%	27.7%	0.8%	216%	2.9%
\$37	\$1,458	3.7%	29.9%	2.2%	220%	3.9%
\$38	\$1,497	4.6%	32.2%	2.3%	227%	7.8%
\$39	\$1,536	5.2%	33.6%	1.4%	238%	10.7%
\$40	\$1,576	5.5%	34.3%	0.7%	247%	9.3%

Supplementary Method Indicated Threshold (c): **\$39**

Source: WCIRB unit statistical data from policy years 2012 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5474/5482, *Painting/Waterproofing*
Primary Method: Changes in Wage Levels

Current Dual Wage Threshold:	\$31
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	77%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	3.6%
Primary Method Indicated Threshold (d):	\$32

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5474/5482, Painting/Waterproofing
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$31
 Weekly Wage Corresponding to Current Threshold (a): \$1,135

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$29	\$1,062	9.6%	41.3%	2.9%	196%	3.1%
\$30	\$1,098	8.7%	43.5%	2.2%	197%	1.2%
\$31	\$1,135	9.1%	46.0%	2.6%	201%	4.2%
\$32	\$1,171	7.5%	49.5%	3.5%	211%	10.3%
\$33	\$1,208	7.8%	52.3%	2.8%	222%	11.0%
\$34	\$1,245	7.3%	54.9%	2.6%	233%	10.6%
\$35	\$1,281	5.1%	57.0%	2.1%	243%	9.8%

Supplementary Method Indicated Threshold (c): **\$32**

Source: WCIRB unit statistical data from policy years 2017 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5484/5485, *Plastering or Stucco Work*
Primary Method: Changes in Wage Levels

Current Dual Wage Threshold:	\$36
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	80%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	4.6%
Primary Method Indicated Threshold (d):	\$38

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5484/5485, Plastering or Stucco Work
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$36
 Weekly Wage Corresponding to Current Threshold (a): \$1,209

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$34	\$1,142	8.2%	44.5%	2.5%	180%	0.1%
\$35	\$1,176	5.6%	46.7%	2.1%	185%	5.5%
\$36	\$1,209	8.8%	48.6%	1.9%	183%	-2.3%
\$37	\$1,243	9.3%	51.4%	2.8%	182%	-1.2%
\$38	\$1,277	5.4%	53.6%	2.3%	193%	11.1%
\$39	\$1,310	8.0%	55.6%	2.0%	204%	10.5%
\$40	\$1,344	7.7%	57.1%	1.5%	212%	8.9%

Supplementary Method Indicated Threshold (c): **\$38**

Source: WCIRB unit statistical data from policy years 2012 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5538/5542, Sheet Metal Work/Heating or Air Conditioning Ductwork
Primary Method: Changes in Wage Levels

Current Dual Wage Threshold:	\$29
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	33%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	14.2%
Primary Method Indicated Threshold (d):	\$33

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

**Classifications 5538/5542, Sheet Metal Work/Heating or Air Conditioning Ductwork
Supplemental Method: Unit Statistical Payroll and Loss Analysis**

Current Dual Wage Threshold: \$29
 Weekly Wage Corresponding to Current Threshold (a): \$1,101

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$27	\$1,025	13.2%	19.0%	2.4%	223%	-0.2%
\$28	\$1,063	8.6%	21.2%	2.2%	220%	-2.6%
\$29	\$1,101	6.6%	23.5%	2.2%	218%	-2.3%
\$30	\$1,139	8.3%	26.4%	2.9%	215%	-2.7%
\$31	\$1,177	8.4%	28.2%	1.9%	211%	-4.4%
\$32	\$1,215	6.7%	30.4%	2.2%	215%	4.3%
\$33	\$1,253	5.3%	33.0%	2.6%	232%	16.7%
\$34	\$1,291	5.4%	35.2%	2.2%	236%	4.0%
\$35	\$1,329	6.0%	36.7%	1.5%	249%	13.0%

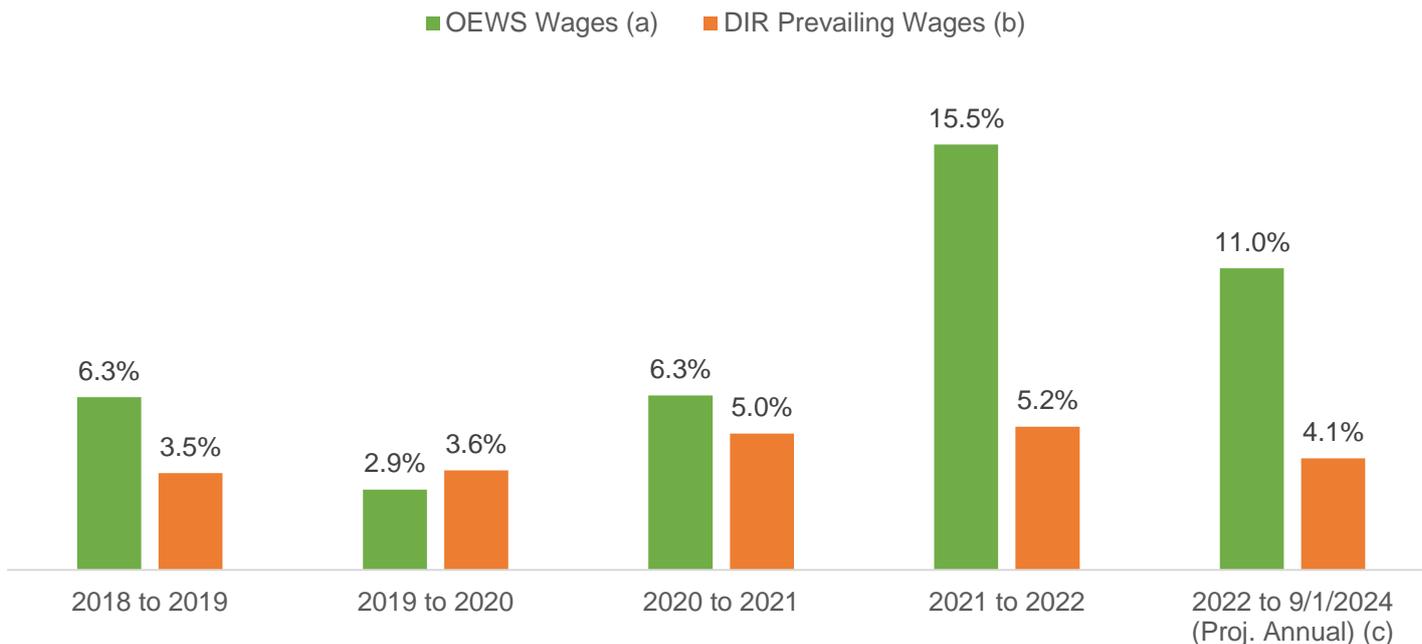
Supplementary Method Indicated Threshold (c): **\$33**

Source: WCIRB unit statistical data from policy years 2017 through 2020.
 Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.
 Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

Classifications 5552/5553, Roofing
Changes in OEWS/DIR Prevailing Wage at Around the Threshold Level

Annual Wage Level Change at Around the Threshold Level



- (a) Based on the current dual wage threshold of \$29 mapped to the 24th percentile based on the BLS OEWS data (see Exhibit 15.2).
- (b) Based on prevailing wage determinations adopted by the DIR. The rates may also include future predetermined increases based on collective bargaining agreements. These rates were weighted by region and occupation to best reflect the distribution of exposures by region and occupation for the classification.
- (c) OEWS Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022 using linear extrapolation.
 DIR Prevailing Wages: Projected annual changes from 2022 to effective date 9/1/2024 are estimated based on the weighted predetermined increases in prevailing wages made by the DIR as of February 2023.

Classifications 5552/5553, Roofing
Primary Method: Changes in Wage Levels - Using Prevailing Wage Data

Current Dual Wage Threshold:	\$29
Selected "Base Year" (a):	2022
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	24%
Wage Inflation at Percentile from 9/1/2022 to 9/1/2024 (c):	8.3%
Primary Method Indicated Threshold (d):	\$31

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2022.
Changes from 9/1/2022 to effective date 9/1/2024 are estimated based on the average annual wage change of the prevailing wage by the DIR.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

Classifications 5552/5553, Roofing
Supplemental Method: Unit Statistical Payroll and Loss Analysis

Current Dual Wage Threshold: \$29
 Weekly Wage Corresponding to Current Threshold (a): \$1,047

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$27	\$975	4.8%	13.4%	1.4%	197%	1.3%
\$28	\$1,011	7.6%	15.0%	1.7%	189%	-7.6%
\$29	\$1,047	8.9%	16.4%	1.4%	191%	1.4%
\$30	\$1,083	8.9%	18.7%	2.3%	206%	15.1%
\$31	\$1,119	7.1%	21.6%	2.9%	211%	4.9%
\$32	\$1,156	6.6%	24.0%	2.4%	217%	6.3%
\$33	\$1,192	6.9%	26.3%	2.3%	222%	5.2%

Supplementary Method Indicated Threshold (c): **\$31**

Source: WCIRB unit statistical data from policy years 2017 through 2020.

Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.

Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.

**Classifications 6218/6220, *Excavation/Grading/Land Leveling*,
6307/6308, *Sewer Construction* and 6315/6316, *Water/Gas Mains*
Primary Method: Changes in Wage Levels**

Current Dual Wage Threshold:	\$38
Selected "Base Year" (a):	2023
Proposed Threshold Effective Date:	9/1/2024
Threshold Wage Percentile at Base Year (b):	63%
Wage Inflation at Percentile from 9/1/2023 to 9/1/2024 (c):	5.0%
Primary Method Indicated Threshold (d):	\$40

- (a) See Exhibit 2.
- (b) Based on wage distributions from the OEWS data published by the Bureau of Labor Statistics for the occupations mapped to the classification (see Exhibit 3).
Differences between published percentiles determined based on linear interpolation.
- (c) Based on changes in the OEWS wage at the current threshold's percentile in 2023.
Changes from 9/1/2023 to effective date 9/1/2024 are estimated based on the average annual wage change observed in 2021 and 2022.
- (d) Equal to the current threshold adjusted by the estimated wage inflation.

**Classifications 6218/6220, *Excavation/Grading/Land Leveling*,
6307/6308, *Sewer Construction* and 6315/6316, *Water/Gas Mains*
Supplemental Method: Unit Statistical Payroll and Loss Analysis**

Current Dual Wage Threshold: \$38
 Weekly Wage Corresponding to Current Threshold (a): \$1,453

Threshold	Corresponding Weekly Wage	Proportion of Injured Workers within \$1 of Threshold	Low Wage Payroll Share	Incremental Change	Loss to Payroll Differential (b)	Incremental Change
\$36	\$1,376	5.7%	20.4%	1.0%	196%	0.8%
\$37	\$1,415	6.0%	21.8%	1.5%	193%	-3.0%
\$38	\$1,453	5.5%	22.7%	0.9%	196%	2.8%
\$39	\$1,491	4.2%	24.4%	1.6%	193%	-3.1%
\$40	\$1,529	4.0%	26.0%	1.7%	201%	8.5%
\$41	\$1,568	5.7%	27.2%	1.2%	205%	4.0%
\$42	\$1,606	5.3%	28.7%	1.4%	209%	3.7%

Supplementary Method Indicated Threshold (c): **\$40**

Source: WCIRB unit statistical data from policy years 2017 through 2020.
 Claims are adjusted to tenth unit statistical report level and a policy year 2020 benefit level.
 Payroll and wages are adjusted to a September 1, 2024 wage level.

- (a) Based on an analysis of injured workers' weekly wage distributions for the low wage and high wage classifications. Selected weekly wage corresponds to the largest gap in the cumulative distribution functions for the two classifications.
- (b) Equal to the loss to payroll ratio for the low wage classification divided by the loss to payroll ratio for the high wage classification based on the given threshold. Losses are limited to \$500,000 per claim.
- (c) Indicated threshold generally represents the threshold at which future increases would result in diminishing returns in the improvement of the loss to payroll differential, while also considering other criteria.