

Guidelines for Computing Pure Premiums at the Advisory Pure Premium Rate Level

For deriving premiums for the Premium Exhibit (and Calendar Year Exhibit for fourth quarter) of the Quarterly Call (CA-QT-xQyy) and the Large Deductible Call (CA-LD-20yy), Pure Premium at the Advisory Pure Premium Rate Level for a policy is defined to be the sum of the product of the exposure and the approved advisory pure premium rate for each classification, adjusted by application of the experience modification computed in accordance with the *California Workers' Compensation Experience Rating Plan – 1995* (Method 1). While the WCIRB prefers the Pure Premium at the Advisory Pure Premium Rate Level to be computed in this manner, some insurers might not have all of the necessary data available to perform this computation. As a result, several alternative methods are allowed and described below.

- A. For insurers who derive their authorized rates through application of a consistent multiplicative factor¹ across all classifications to the approved advisory pure premium rates, the factor can be used to convert premiums at the insurer level to premiums at the advisory pure premium rate level (Method 2). Insurers using this method must first modify premiums at the insurer level to remove the premium impact of any included rating plans (including the advisory Insolvent Insurer Rating Adjustment Plan) other than the *California Workers' Compensation Experience Rating Plan - 1995* before applying the multiplicative factor to derive the premiums at advisory pure premium rate level.
- B. For insurers employing different factors by classification, there are two scenarios:
 1. For premiums that are not coded down to the classification level, a weighted average rate departure factor can be applied to the premium at the insurer level to obtain the pure premium at the approved advisory pure premium rate level (Method 3). This weighted average rate departure factor, which would be divided into the premium at insurer level, is simply the ratio of:
$$\frac{\text{Sum (most recent total exposure for each class x insurer-filed rate for each class)}}{\text{Sum (most recent total exposure for each class x approved advisory pure premium for each class)}}$$
 2. For premiums that are coded down to classification level, pure premiums by classification can be computed based on applying, to the insurer's base premium by classification, the experience modification and the ratio of the insurer's rate for each classification to the approved advisory pure premium rate for that classification (Method 4).

Note that the premiums at insurer level are prior to the application of deductible credits.

Several quantitative examples are shown in the following pages for your reference. Also, examples in Microsoft® Excel file format can be found on the WCIRB website in the [Aggregate Financial Data Call](#) section using the [Additional Data Element Guidelines](#) link on the left panel. The past several sets of approved advisory pure premium rates are also available in the [Additional Data Element Guidelines](#).

If the method used to compute pure premium does not conform to any of the Methods 1 through 4 prescribed in these Guidelines, then "Method 5" should be designated on Page 2 of the call and an explanation should be provided.

The method(s) used in the computation of the Pure Premium at the Advisory Pure Premium Rate Level is to be indicated on the Premium Verification Worksheet of the Quarterly Call.

¹ This is typically the Loss Cost Multiplier (LCM) in the insurer's rate filing.

Guidelines for Computing Pure Premiums at the Advisory Pure Premium Rate Level

Example of Pure Premium Calculation Using Method 1

yyyy denotes a selected policy year. This calculation should be performed for each individually listed policy year requested on the Premium Exhibit (and Calendar Year Exhibit for fourth quarter) of the Quarterly Call.

Method 1

Pure Premium at Advisory Pure Premium Rate Level computed based on Summing. All inputs in this example (columns (1) to (5) below) are hypothetical.

$$\left(\begin{array}{c} \text{exposure written} \\ \text{(or earned) for} \\ \text{all yyyy policies} \end{array} \right) \times \begin{array}{c} \text{approved advisory} \\ \text{pure premium} \\ \text{rates} \end{array} \times \begin{array}{c} \text{Experience} \\ \text{Modification} \end{array} \right) \text{ For calendar period}$$

Example Using Method 1

(1)	(2)	(3)	(4)	(5)	(6)=(3)x(4)x(5)
Policy #	Class Code	WC Payroll (in hundreds) for Calendar Quarter ⁽ⁱ⁾	yyyy Advisory Pure Premium Rate	yyyy Mod	Pure Premium at Advisory PP Rate Level
WC001	9995	1,000	5.55	150%	8,325
	9996	2,000	9.03	150%	27,090
	9997	3,000	7.73	150%	34,785
WC002	9997	6,000	7.73	120%	55,656
	9998	8,000	7.04	120%	67,584
WC003	9999	15,000	12.70	90%	171,450
Total		35,000			364,890 ⁽ⁱⁱ⁾

Notes

- (i) Exposure was adjusted to reflect the portion of the exposure on each policy written (or earned) for the calendar quarter in question.
- (ii) Enter figure on Premium Exhibit, Column (2) in the row applicable to the selected policy year yyyy (page 1 of Quarterly Call).

Guidelines for Computing Pure Premiums at the Advisory Pure Premium Rate Level

Example of Pure Premium Calculation Using Method 2

yyyy denotes a selected policy year. This calculation should be performed for each individually listed policy year requested on the Premium Exhibit (and Calendar Year Exhibit for fourth quarter) of the Quarterly Call.

Method 2

Pure Premium at Advisory Pure Premium Rate Level computed based on applying a consistent multiplicative factor (removing company expenses and rate deviations) across all classifications to your company's premium for policy year yyyy policies. All inputs in this example (Items (1), (2), (5) and (6) below) are hypothetical.

Example Using Method 2

(1) Total Policy Year yyyy Premium at Insurer Level (for calendar period)	16,000 ⁽ⁱ⁾
(2) Rating Plan Adjustments Included in (1) Other than Experience Rating: (i.e. Schedule Rating, premium discount, etc.)	
a. Total Rating Plan Credits	(3,500)
b. <u>Total Rating Plan Debits</u>	<u>200</u>
c. Combined Premium Adjustments	(3,300)
(3) Premium with Rating Plan Adjustments Removed (1) – (2c)	19,300
(4) Percentage Change of Combined Premium Adjustments to the Premium at Insurer Level $\{[(3) - (1)] / (1)\} \times 100\%$	20.625 % ⁽ⁱⁱ⁾
(5) Company Expense Loading (the applicable Pure Premium Rate Modifiers from company rate filings)	1.250
(6) Company Uniform Rate Deviation Factor (the uniform rate deviation factor applicable to yyyy rates)	0.900
(7) "Multiplicative Factor" (5) x (6)	1.125 ⁽ⁱⁱⁱ⁾
(8) Total Policy Year yyyy Pure Premium at Advisory Pure Premium Rate Level (3) / (7)	17,156 ^(iv)

Notes

- (i) Enter figure on Premium Exhibit, Column (1) in the row applicable to the selected policy year yyyy (page 1 of Quarterly Call).
- (ii) Enter figure on Pure Premium Verification Worksheet, Question a (page 3 of Quarterly Call).
- (iii) Enter figure on Pure Premium Verification Worksheet, Question b (page 3 of Quarterly Call).
- (iv) Enter figure on Premium Exhibit, Column (2) in the row applicable to the selected policy year yyyy (page 1 of Quarterly Call).

WCIRB internal verification:

$$(8) = \frac{(1) \times [1.0 + (4)]}{(7)}$$

Guidelines for Computing Pure Premiums at the Advisory Pure Premium Rate Level

Example of Pure Premium Calculation Using Method 3

yyyy denotes a selected policy year. This calculation should be performed for each individually listed policy year requested on the Premium Exhibit (and Calendar Year Exhibit for fourth quarter) of the Quarterly Call.

Method 3

Pure Premium at Advisory Pure Premium Rate Level computed based on applying a weighted average rate departure factor (removing company expenses and rate deviations) across all classifications to your company's premium for policy year yyyy policies. All inputs in this example (Items (1), (2), (5a), (5b), (5c) and (5e) below) are hypothetical.

Example Using Method 3

(1) Total Policy Year yyyy Premium at Insurer Level (for calendar period)	16,000 ⁽ⁱ⁾
(2) Rating Plan Adjustments Other than Experience Rating: (i.e. Schedule Rating, premium discount, etc.)	
a. Total Rating Plan Credits	(3,500)
b. Total Rating Plan Debits	200
c. Combined Premium Adjustments	(3,300)
(3) Premium with Rating Plan Adjustments Removed (1) – (2c)	19,300
(4) Percentage Change of Combined Premium Adjustments to the Premium at Insurer Level $\{[(3) - (1)] / (1)\} \times 100\%$	20.625% ⁽ⁱⁱ⁾
(5) Company Weighted Average Rate Departure Factor:	1.112 ⁽ⁱⁱⁱ⁾

Class (a)	Latest Available Exposure (in 00s) (b)	yyyy Insurer Rate (c)	Insurer Base Premium (d)=(b)x(c)	yyyy Advisory Pure Prem. Rate (e)	Advisory Pure Prem. (f)=(b)x(e)
9995	1,000	4.50	4,500	5.55	5,550
9996	40,000	12.50	500,000	9.03	361,200
9997	100,000	6.00	600,000	7.73	773,000
:	:	:	:	:	:
:	:	:	:	:	:
Total	500,000		3,210,000		2,885,910

(6) Total Policy Year yyyy Pure Premium at Advisory Pure Premium Rate Level (3) / (5)	17,356 ^(iv)
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Notes

- (i) Enter figure on Premium Exhibit, Column (1) in the row applicable to the selected policy year yyyy (page 1 of Quarterly Call).
- (ii) Enter figure on Pure Premium Verification Worksheet, Question a (page 3 of Quarterly Call).
- (iii) Weighted Average Rate Departure Factor = $3,210,000 / 2,885,910 = 1.112$. Enter figure on Pure Premium Verification Worksheet, Question b (page 3 of Quarterly Call).
- (iv) Enter figure on Premium Exhibit, Column (2) in the row applicable to the selected policy year yyyy (page 1 of Quarterly Call).

WCIRB internal verification:

$$(6) = \frac{(1) \times [1.0 + (4)]}{(5)}$$

Guidelines for Computing Pure Premiums at the Advisory Pure Premium Rate Level

Example of Pure Premium Calculation Using Method 4

yyyy denotes a selected policy year. This calculation should be performed for each individually listed policy year requested on the Premium Exhibit (and Calendar Year Exhibit for fourth quarter) of the Quarterly Call.

Method 4

Pure Premium at Advisory Pure Premium Rate Level computed based on applying a ratio of insurer rates to pure premium rates by classification to your company's premium by classification for policy year yyyy policies. All inputs in this example are hypothetical.

Example Using Method 4

Policy #	Class Code (1)	Premium at Insurer Level (2)	Insurer Base Premium ⁽ⁱ⁾ (3)	yyyy Advisory P.P. Rate (4)	Insurer Rate (5)	Base Pure Premium (6)=(3)x(4)/(5)	yyyy Mod (7)	Pure Premium at Advisory P.P. Rate Level (8)=(6)x(7)
WC001	9995	950	1,000	5.55	6.66	833	120%	1,000
	9996	1,950	2,000	9.03	9.03	2,000	120%	2,400
	Sub-total	2,900	3,000			2,833	120%	3,400
WC002	9997	5,950	6,000	7.73	8.50	5,456	80%	4,365
	9998	7,950	8,000	7.04	7.04	8,000	80%	6,400
	9999	14,950	15,000	12.70	15.24	12,500	80%	10,000
	Sub-total	28,850	29,000			25,956	80%	20,765
Total for All Policies		31,750 ⁽ⁱⁱ⁾	32,000			28,789		24,165 ⁽ⁱⁱⁱ⁾

$$\begin{aligned}
 &\text{Percentage Change of Combined Premium Adjustments to the Premium at Insurer Level} \\
 &= \frac{\text{Sum (Insurer Base Premium x Mod) of all yyyy policies}}{\text{Premium at Insurer Level for all yyyy policies}} \text{ minus 100\%} \\
 &= \frac{(3,000 \times 1.20 + 29,000 \times 0.80)}{31,750} - 1.0 \\
 &= -15.59\% \text{ (iv)}
 \end{aligned}$$

$$\begin{aligned}
 &\text{Average Ratio of Insurer Rate to Pure Premium Rates} \\
 &= \frac{\text{Sum (Insurer Base Premium x Mod) of all yyyy policies}}{\text{Sum (Base Pure Premium x Mod) of all yyyy policies}} \\
 &= \frac{(3,000 \times 1.20 + 29,000 \times 0.80)}{(2,833 \times 1.20 + 25,956 \times 0.80)} \\
 &= 1.109 \text{ (v)}
 \end{aligned}$$

Notes:

- (i) Base Premium = Exposure x Insurer Rate per Exposure. Exposure was adjusted to reflect the portion of the exposure on each policy written (or earned) for the calendar quarter in question.
- (ii) Enter figure on Premium Exhibit, Column (1) in the row applicable to the selected policy year yyyy (page 1 of Quarterly Call).
- (iii) Enter figure on Premium Exhibit, Column (2) in the row applicable to the selected policy year yyyy (page 1 of Quarterly Call).
WCIRB internal verification:
(iii) = (ii) x [1.0 + (iv)] / (v) or 24,165 = 31,750 x [1.0 + (-15.59%)] / 1.109
- (iv) Enter figure on Pure Premium Verification Worksheet, Question a (page 3 of Quarterly Call).
- (v) Enter figure on Pure Premium Verification Worksheet, Question b (page 3 of Quarterly Call).

Guidelines for Computing Pure Premiums at the Advisory Pure Premium Rate Level

Approved Advisory Pure Premium Rates.

The past several sets of approved advisory pure premium rates are available in the [Additional Data Element Guidelines](#) found in the Aggregate Financial Data section of the WCIRB website.