

Chapter 5: Premium

$$1.0431 = \frac{1.1435}{1.0963}.$$

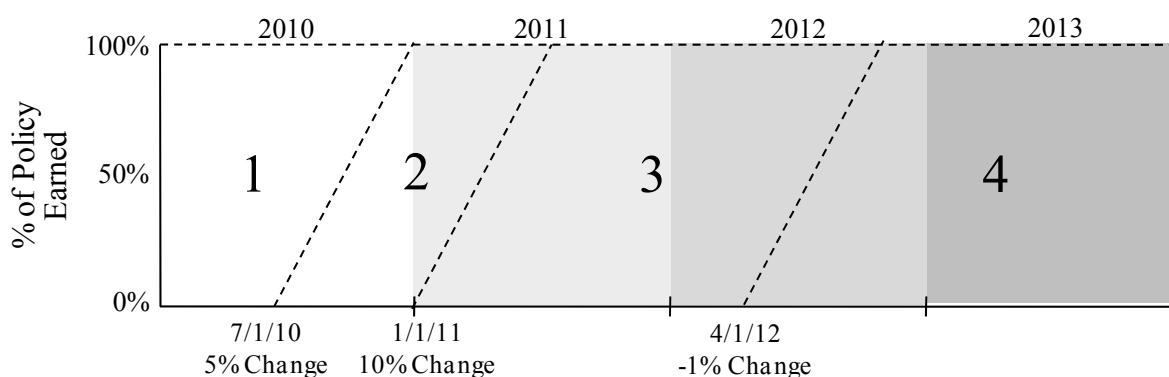
In Step 6, this on-level factor is applied to the Calendar Year 2011 earned premium in order to bring it to current rate level.

$$\text{CY11EP at current rate level} = \text{CY11EP} \times 1.0431.$$

Standard Calendar Year Calculations for Six-Month Policies

If the policy term in the example is six months rather than annual (as is common in personal automobile coverage), then the pictorial representation of the rate level groups is as follows:

5.20 Rate Changes assuming CY EP with 6-Month Policies



In this case, the areas (Step 2) for Calendar Year 2011 are as follows:

- Area 1 in CY 2011: N/A
- Area 2 in CY 2011: $0.250 = 0.50 \times 0.50 \times 1.00$
- Area 3 in CY 2011: $0.750 = 1.00 - 0.250$

The cumulative rate level indices (Step 3) are the same as those used for the annual policies.

The following is the average rate level index (Step 4) for Calendar Year 2011 assuming semi-annual policies:

$$1.1288 = 1.0500 \times 0.250 + 1.1550 \times 0.750$$

The on-level factor (Step 5) to adjust Calendar Year 2011 earned premium to current rate level assuming semi-annual policies is:

$$1.0130 = \frac{1.1435}{1.1288}.$$

The on-level adjustment for semi-annual policies is smaller than for annual policies because the semi-annual rate changes earn more quickly.