## Transcript Reference: Nov. 17, 2014, Page 86-89, Lines 4-25; 1-25; 1-16

Undertake to identify the commercial and private passenger trend reports in the last ten years where Oliver Wyman did not use the ten and five year for Bodily Injury.

## Response:

Oliver Wyman finds a ten-year period is generally a reasonable time period for determining the underlying trend rates for Bodily Injury. However, shorter time periods, outlying data points, and the uncertainty of the loss cost estimates are also considered to determine if there has been a change in the trend pattern.

Attached is a summary of Oliver Wyman's Bodily Injury loss trend selections for both Commercial Vehicles (Attachment \#1) and Private Passenger Automobiles (Attachment \#2) from 2007-1 to 2013-2. The synopsis describing the trend selections for each period is an excerpt from the corresponding loss trend report filed with the Board by Oliver Wyman.

Please note that the Board's guideline trend process was first introduced following publication of Industry data through to June 30, 2007. Therefore, trend selections for the full ten-year period requested by Counsel for Facility Association are not available.

## Oliver Wyman Selected Loss Trend Rates Newfoundland and Labrador Commercial Vehicles <br> Bodily Injury Selections from 2007-1 to 2013-2

- Note: Selected future trend rates are the same as selected past trend rate.


## 2007-1

Over the ten-year period ending June 30, 2007, the average annual loss cost trend rate has been between $+1.4 \%$ (regression coefficient of $8 \%$ ) and $+2.9 \%$ (regression coefficient of $8 \%$ ) with and without the exclusion of certain data points. We select a past trend rate of $+2.0 \%$.

## 2007-2

Over the ten-year period ending December 31, 2007, the average annual loss cost trend rate has been between $-0.1 \%$ (regression coefficient of $1 \%$ ) and $+3.4 \%$ (regression coefficient of $11 \%$ ) with and without the exclusion of certain data points. We select a past trend rate of $+2.0 \%$.

## 2008-1

Over the ten-year period ending June 30, 2008, the average annual loss cost trend rate has been between $-0.2 \%$ and $+0.9 \%$ with and without the exclusion of certain data points. As we observe a higher annual loss cost trend rate over the more recent shorter term periods, and as our prior selection was $+2.0 \%$ based on the data available as at December 31, 2007, we again select a past trend rate of $+2.0 \%$.

## 2008-2

Over the ten-year period ending December 31, 2008 the average annual loss cost trend rate has been between $-0.3 \%$ and $-2.8 \%$ with the exclusion of certain data points. Over the five-year period ending December 31, 2008 the average annual loss cost trend has been between $-1.6 \%$ and $+2.1 \%$ with the exclusion of certain data points. We select a past trend rate of $+0.0 \%$.

## 2009-1

Over the ten-year period ending June 30, 2009 the average annual loss cost trend rate has been $-2.2 \%$ excluding the two highest and two lowest data points. The comparable trend ending December 31, 2008 has been $-1.7 \%$. Over the five-year period ending June 30, 2009, the average annual loss cost trend has been $+3.2 \%$ excluding the highest and lowest data points. The comparable trend ending December 31, 2008 has been $-3.0 \%$.

We select a past trend rate of $+0.0 \%$.

## 2009-2

Over the ten-year period ending December 31, 2009 the average annual loss cost trend rate has been $-3.6 \%$ excluding the two highest and two lowest data points. The comparable trend ending June 30, 2009 has been $-3.3 \%$. Over the five-year period ending December 31, 2009, the average annual loss cost trend has been $+0.6 \%$ excluding the highest and lowest data points. The comparable trend ending December 31, 2009 has been $+0.8 \%$.

We select a past trend rate of $+0.0 \%$.

## 2010-1

Over the ten-year period ending June 30, 2010 the average annual loss cost trend rate has been $-4.8 \%$ excluding the two highest and two lowest data points. The comparable trend ending December 31, 2009 has been $-3.7 \%$. Over the five-year period ending June 30, 2010, the average annual loss cost trend has been $-0.4 \%$ excluding the highest and lowest data points. The comparable trend ending December 31, 2009 has been $-0.1 \%$.

We select a past trend rate of $+0.0 \%$.

## 2010-2

Over the ten-year period ending December 31, 2010 the average annual loss cost trend rate has been $-2.7 \%$ excluding the two highest and two lowest data points. The comparable trend ending June 30, 2010 has been $-4.2 \%$. Over the five-year period ending December 31, 2010, the average annual loss cost trend has been $+5.7 \%$ excluding the highest and lowest data points. The comparable trend ending June 30, 2010 has been $+1.3 \%$.

We select a past trend rate of $+0.0 \%$, which is the approximate average of these four trend rates.

## 2011-1

Our estimated past loss cost trends based on Industry data as of June 30, 2011 are as follows:
Ten-year period ending June 11, excluding the two highest/lowest values: -3.7\%
Five-year period ending June 11, excluding the highest/lowest values: $+1.8 \%$
Ten-year period ending December 10, excluding the two highest/lowest values: -3.9\%
Five-year period ending December 10, excluding the highest/lowest values: $+1.0 \%$
We select a past trend rate of $-0.5 \%$, which is the approximate average of (a) these four trend rates and (b) our previous past trend rate selection.

## 2011-2

Our estimated past loss cost trends based on Industry data as of December 31, 2011 are as follows:

Ten-year period ending June 11, excluding the two highest/lowest values: -2.9\%
Five-year period ending June 11, excluding the highest/lowest values: $+0.4 \%$
Ten-year period ending December 11, excluding the two highest/lowest values: $-2.9 \%$
Five-year period ending December 11, excluding the highest/lowest values: -9.0\%
Following the same approach we applied in our last trend study, we would select a past loss cost trend rate of $-2.0 \%$ (the approximate average of (a) the average of the above four trends and (b) our prior selection of $-0.5 \%$ ). However, even with the exclusion of the highest and lowest values, the $-9.0 \%$ five-year trend ending December 2011 is seemingly distorted due to a relatively high 2007-2 data point. And the ten-year trends are affected by a sharp decline in frequency that has moderated over the more recent past.

Based on these considerations, we select a past trend rate of $+0.0 \%$.

## 2012-1

Our estimated past loss cost trends based on Industry data as of June 30, 2012 are as follows:
Ten-year period ending June 12, excluding the two highest/lowest values: $-4.6 \%$
Five-year period ending June 12, excluding the highest/lowest values: $-10.3 \%$
Ten-year period ending December 11, excluding the two highest/lowest values: -5.6\% Five-year period ending December 11, excluding the highest/lowest values: - $7.1 \%$

Following the same approach as we have generally applied in our prior trend studies, we would select a past loss cost trend rate of $-3.5 \%$ (the approximate average of (a) the average of the above four trends and (b) our prior selection of $0.0 \%$ ). However, even with the exclusion of the highest and lowest values, the five-year trends are seemingly distorted due to a relatively high 2007-2 data point.

Based on these considerations, we select a past loss cost trend rate of $-2.5 \%$ (the approximate average of (a) the average of the above two ten year trends and (b) our prior selection of $0.0 \%$ ).

## 2012-2

Our estimated past loss cost trends based on Industry data as of December 31, 2012 are as follows:

Ten-year period ending December 12, excluding the two highest/lowest values: $-1.7 \%$ Five-year period ending December 12, excluding the highest/lowest values: -0.4\% Ten-year period ending June 12, excluding the two highest/lowest values: -3.6\%

Five-year period ending June 12, excluding the highest/lowest values: $+1.9 \%$
We select a past loss cost trend rate of $-1.5 \%$ (the approximate average of (a) the average of the above four trends and (b) our prior selection of $-2.5 \%$ ).

## 2013-1

The indicated past loss cost trends based on Industry data as of June 30, 2013 are as follows:
Ten-year period ending June 13, excluding the two highest/lowest values: $+0.6 \%$ Five-year period ending June 13, excluding the highest/lowest values: $+4.1 \%$

Ten-year period ending December 12, excluding the two highest/lowest values: $-1.4 \%$ Five-year period ending December 12, excluding the highest/lowest values: -2.1 \%

Following the same approach we applied in our prior trend study, we select a past loss cost trend rate of $-0.5 \%$ - the approximate average of (a) the average of the above four trends $(+0.5 \%)$ and (b) our prior selection ( $-1.5 \%$ ).

## 2013-2

The indicated past loss cost trends based on Industry data as of December 31, 2013 are as follows:

Ten-year period ending December 13, excluding the two highest/lowest values: $-0.2 \%$ Five-year period ending December 13, excluding the highest/lowest values: $+1.8 \%$

Ten-year period ending June 13, excluding the two highest/lowest values: $-1.2 \%$
Five-year period ending June 13, excluding the highest/lowest values: $-1.1 \%$
Following the same approach we applied in our prior trend study, we continue to select a past loss cost trend rate of $-0.5 \%$ the approximate average (rounded) of (a) the average of the above four trends ( $-0.2 \%$ ) and (b) our prior selection ( $-0.5 \%$ ).

# Oliver Wyman Selected Loss Trend Rates <br> Newfoundland and Labrador Private Passenger Automobiles <br> Bodily Injury Selections from 2007-1 to 2013-2 

## 2007-1

## Past

The five-year period ending June 30, 2007 appears to reflect a leveling off of what had been a downward trend in loss costs. The average annual loss cost trend rates over the five-year period ending June 30, 2007 has been $-1.3 \%$ (regression coefficient of $59 \%$ ); the average annual loss cost trend over the three-year period ending June 30, 2007 has been $-0.7 \%$ (regression coefficient of $97 \%$ ); and the average annual loss cost trend over the three-year period ending December 31, 2006 has been $+5.3 \%$ (regression coefficient of $80 \%$ ). We select a past loss cost trend rate of $+0.0 \%$.

## Future

Our selected past loss cost trend rate is $0 \%$. The more recent data points do not provide clear evidence of a change in the trend pattern. The average annual loss cost trend over the 3.5 year period ending June 30, 2007 has been $+3.1 \%$, over the three-year period ending June 30, 2007 has been $-0.7 \%$, over the three-year period ending December 31, 2006 has been $+5.3 \%$, and over the two-year period ending June 30,2007 has been $-2.9 \%$. We select a future loss cost trend rate of $+0.0 \%$.

## 2007-2

## Past

The average annual loss cost trend rate over the five-year period ending December 31, 2007 has been $-0.8 \%$ (regression coefficient of $52 \%$ ) and over the seven-year period ending December 31, 2007 has been $-3.6 \%$ (regression coefficient of 57\%). However, the average annual loss cost trend rate over the same five-year period excluding the highest and lowest loss cost data points was $+0.6 \%$ (regression coefficient of $45 \%$ ), while the average annual loss cost trend rate over the same seven-year period excluding the two highest and lowest loss cost data points was $-2.6 \%$ (regression coefficient of $49 \%$ ). We also note that the average annual severity trend over the past seven years has been $+4.4 \%$ (regression coefficient of $92 \%$ ), and over the past five years has been $+5.3 \%$ (regression coefficient of $87 \%$ ); while the average annual frequency trend over the past seven years has been $-7.6 \%$ (regression coefficient of $86 \%$ ) and over the past five years has been $-5.8 \%$ (regression coefficient of $79 \%$ ). We select a past loss cost trend rate of $+0.0 \%$.

## Future

Our selected past loss cost trend rate is $0 \%$. The more recent data points do not provide clear evidence of a change in the trend pattern. The average annual loss cost trend over the 3.5 year period ending December 31, 2007 has been $+0.8 \%$, over the three-year period ending December 31,2007 has been $-2.8 \%$, and over the three-year period ending June 30, 2007 has been $+3.5 \%$. We select a future loss cost trend rate of $+0.0 \%$.

## 2008-1

## Past

The average annual loss cost trend over the ten-year, seven-year, and five-year periods ending June 30,2008 has been $-2.9 \%,-1.8 \%$ and $-1.6 \%$, respectively. Over the five-year period, excluding various high and low data points, the average annual loss cost trend was in the range of $-0.5 \%$ to $-2.5 \%$. Over the three year period ending June 30, 2008 the average annual loss cost trend rate was $-2.6 \%$. The trend over the two-year period ending December 31, 2007 was $+2.6 \%$; however, the two- year ending June 30, 2008 trend was $-6.7 \%$. We select a past loss cost trend rate of $-1.5 \%$.

## Future

Our selected past loss cost trend rate is $-1.5 \%$. The more recent data points do not provide clear evidence of a change in the trend pattern. The average annual loss cost trends over the $3.5-y e a r$ and three-year periods ending June 30, 2008 have been $-3.0 \%$ and $-2.6 \%$, respectively. We select a future loss cost trend rate of $-1.5 \%$, the same as the selected past loss cost trend rate.

## 2008-2

## Past

Based on data as of June 30, 2008, we selected a past loss cost trend rate of $-1.5 \%$. The data through December 31, 2008 shows the loss cost for 2008-2 to have sharply declined, by approximately $11 \%$ compared to 2007-2.

The average annual loss cost trend over the ten-year, seven-year, and four-year periods ending December 31, 2008 has been $-3.9 \%,-2.5 \%$ and $-3.4 \%$, respectively. Over the ten-year period, excluding various high and low data points, the average annual loss cost trend was in the range of $-4.3 \%$ to $-2.6 \%$.

We select a past loss cost trend rate of $-3.5 \%$.

## Future

Our selected past loss cost trend rate is $-3.5 \%$. The more recent data points do not provide clear evidence of a change in the trend pattern. The average annual loss cost trend over the 3.5 -year, three-year, and two-year periods ending December 31, 2008 has been $-3.7 \%,-1.1 \%$ and $-7.4 \%$, respectively. Given the volatility we have seen in the historical data (e.g., loss costs declined in 2006, followed by an increase in 2007), the two year trend of $-7.4 \%$ may simply be a reflection of the random nature of the data and not necessarily a new trend.

We select a future loss cost trend rate of $-3.5 \%$, the same as the selected past loss cost trend rate.

## 2009-1

## Past

The data through June 30, 2009 shows the loss cost for 2009-1 to be lower than the 2008-1 loss cost by approximately $7 \%$. The loss cost for the twelve-month accident year ending 2009-1 is lower than the loss cost for twelve-month accident year ending 2008-1 by approximately $4 \%$ (a $0 \%$ change in frequency and a $4 \%$ decline in severity). We further note that the loss cost for accident year 2008 is about $2 \%$ lower than the loss cost for accident year 2007.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending June 09: -1.6\%
Five-year period ending June 09: +0.8\%
Four-year period ending June 09: $+0.2 \%$
Three-year period ending June 09: -1.9\%
Ten-year period ending December 08: -1.8\%
Five-year period ending December 08: $+1.2 \%$
Four-year period ending December 08: $+0.5 \%$
Three-year period ending December 08: $+3.9 \%$
Ten-year period ending June 08: -1.6\%
Five-year period ending June 08: $+1.9 \%$
Four-year period ending June 08: $+2.3 \%$
Three-year period ending June 08: $+2.5 \%$
We note that certain of the estimated ultimate loss costs have changed rather significantly from the last review - an indication of the uncertainty underlying the estimates. These changes impact the calculated trends.

We select a past loss cost trend rate of $+1.5 \%$, which is the approximate average of the five-year, four-year, and three-year ending June 30, 2009, December 31, 2008, and June 30, 2008 trends.

## Future

Our selected past loss cost trend rate is $+1.5 \%$. The average annual loss cost trend over the threeyear periods ending December 31, 2008 and ending June 30, 2009, and over the two-year periods ending December 31, 2008 and ending June 30, 2009, have been $+3.9 \%,-1.9 \%,-2.3 \%,-4.6 \%$, respectively. Given the uncertainty in the estimated loss costs, in our opinion the more recent data points do not provide clear evidence of a change in the trend pattern.

We select a future loss cost trend rate of $+1.5 \%$, the same as the selected past loss cost trend rate.

## 2009-2

## Past

The data through December 31, 2009 shows the loss cost for 2009-2 to be higher than the 2008-2 loss cost by approximately $2 \%$. The loss cost for the twelve-month accident year ending 2009 is lower than the loss cost for twelve-month accident year ending 2008 by approximately $5 \%$ (with most of the decrease related to a decline in the frequency rate). We further note that the loss cost for accident year 2008 is about $6 \%$ lower than the loss cost for accident year 2007.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending December 09: -2.1\%
Five-year period ending December 09: $-1.8 \%$
Four-year period ending December 09: -0.7\%
Three-year period ending December 09: -4.7\%
Ten-year period ending June 09: -2.4\%
Five-year period ending June 09: -0.8\%
Four-year period ending June 09: -1.7\%
Three-year period ending June 09: -3.6\%
Ten-year period ending December 08: -2.4\%
Five-year period ending December 08: -0.3\%
Four-year period ending December 08: -1.1\%
Three-year period ending December 08: $+1.9 \%$
We note that certain of the estimated ultimate loss costs have changed rather significantly from the last review - an indication of the uncertainty underlying the estimates. These changes impact the calculated trends.

We select a past loss cost trend rate of $-1.5 \%$, which is the approximate average of the five-year, four-year, and three-year ending December 31, 2009, June 30, 2009, and December 31, 2008 trends.

## Future

Our selected past loss cost trend rate is $-1.5 \%$. The average annual loss cost trend over the threeyear periods ending December 31, 2009 and ending June 30, 2009, and over the two-year periods ending December 31, 2009 and ending June 30, 2009, have been $-4.7 \%,-3.6 \%,-4.2 \%,-8.9 \%$, respectively. Given the uncertainty in the estimated loss costs, in our opinion the more recent data points do not provide clear evidence of a change in the trend pattern.

We select a future loss cost trend rate of $-1.5 \%$, the same as the selected past loss cost trend rate.

## 2010-1

## Past

Based on our analysis as of December 31, 2009, we selected a past loss cost trend rate of $-1.5 \%$.
The data through June 30, 2010 shows the loss cost for 2010-1 to be higher than the 2009-1 loss cost by approximately $33 \%$ (with $2 / 3$ of the increase related to the increase in the frequency rate). The loss cost for the twelve-month accident year ending 2010-1 is higher than the loss cost for the twelve-month accident year ending 2009-1 by approximately $15 \%$.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending June 10: -1.1\%
Five-year period ending June 10: $+1.8 \%$
Four-year period ending June 10: $+1.8 \%$
Three-year period ending June 10: $+3.2 \%$
Ten-year period ending December 09: -2.1\%
Five-year period ending December 09: -1.0\%
Four-year period ending December 09: $+0.1 \%$
Three-year period ending December 09: - $4.9 \%$

Ten-year period ending June 09: -2.4\%
Five-year period ending June 09: -0.1\%
Four-year period ending June 09: -0.5\%
Three-year period ending June 09: -2.9\%
We select a past loss cost trend rate of $+0.0 \%$, which is the approximate average of the five-year, four-year, and three-year ending June 30, 2010, December 31, 2009, and June 30, 2009 trends.

## Future

Our selected past loss cost trend rate is $0.0 \%$. The average annual loss cost trend over the threeyear periods ending June 30, 2010 and ending December 31, 2009, and over the two-year periods ending June 30, 2010 and ending December 31, 2009, have been $+3.2 \%,-4.9 \%,+15.5 \%,-4.5 \%$, respectively. Given the uncertainty in the estimated loss costs, in our opinion the more recent data points do not provide clear evidence of a change in the trend pattern.

We select a future loss cost trend rate of $0.0 \%$, the same as the selected past loss cost trend rate.

## 2010-2

## Past

Based on our analysis as of June 30, 2010, we selected a past loss cost trend rate of $0.0 \%$.
The data through December 31, 2010 shows the loss cost for 2010-2 to be higher than the 2009-2 loss cost by approximately $6 \%$. The loss cost for the twelve-month accident year ending 2010-2 is higher than the loss cost for the twelve-month accident year ending 2009-2 by approximately 15\%.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending December 10: $-1.0 \%$
Five-year period ending December 10: $+1.9 \%$
Four-year period ending December 10: $+0.3 \%$
Three-year period ending December 10: +4.3\%
Ten-year period ending June 10: -1.4\%
Five-year period ending June 10: $+0.6 \%$
Four-year period ending June 10: $+0.4 \%$
Three-year period ending June 10: $+0.9 \%$

Ten-year period ending December 09: -2.1\%
Five-year period ending December 09: -1.6\%
Four-year period ending December 09: -0.5\%
Three-year period ending December 09: -5.8\%
Ten-year period ending December 10, excluding the two highest/lowest values: $+0.1 \%$ Five-year period ending December 10, excluding the highest/lowest values: $+3.4 \%$

Ten-year period ending June 10, excluding the two highest/lowest values: - $0.1 \%$
Five-year period ending June 10, excluding the highest/lowest values: $+3.1 \%$
Ten-year period ending December 09, excluding the two highest/lowest values: $-1.1 \%$
Five-year period ending December 09, excluding the highest/lowest values: $+0.9 \%$
In our last review, we selected the approximate average of the five-year, four-year, and threeyear trends ending June 30, 2010, December 31, 2009, and June 30, 2009. (For this review, the same average (the five-year, four-year, and three-year trends ending December 2010, June 2010, and December, 2009) is also approximately $0.0 \%$.) However, based on the results presented above, we find these trends to be volatile and not necessarily indicative of the underlying trend. For this reason we also consider the five-year and ten-year trends excluding the high and low data points. But while the average of the last six trend rates presented above is approximately $+1 \%$, we note that (a) this is driven by the relatively high five-year trends, (b) even with the exclusion of the lowest data point, the five-year trends are affected by a relatively low 2006-1
data point, and (c) the five-year trends decline to about $0 \%$ if the 2006-1 data point is excluded instead of the 2009-1 data point (which is the lowest value).

We select a past trend rate of $0 \%$.

## Future

Our selected past loss cost trend rate is $0.0 \%$. The average annual loss cost trend over the threeyear periods ending December 31, 2010 and ending June 30, 2010 have been $+4.3 \%$ and $+0.9 \%$, respectively. Excluding the highest and lowest data points the trends are each $+4.2 \%$. While the loss costs over the past three years continue to show volatility, there would appear to be an upward trend over the last three accident years.

We select a future loss cost trend rate of $+2.0 \%$, the approximate average of our selected past loss cost trend rate and the average of the two "excluding high/low" loss cost trend rates noted above.

## 2011-1

## Past

Based on our analysis as of December 31, 2010, we selected a past loss cost trend rate of $0.0 \%$.
The data through June 30, 2011 shows the loss cost for 2011-1 to be lower than the 2010-1 loss cost by approximately $4 \%$. However, the loss cost for the twelve-month accident year ending 2011-1 is higher than the loss cost for the twelve-month accident year ending 2010-1 by approximately $4 \%$.

We note that our estimates of the ultimate loss cost per car based on data as of June 30, 2011 are generally higher than our estimates we presented based on data as of December 31, 2010. There are two reasons for this: (1) the actual claim experience that emerged in the latest six months is greater than what we had estimated and (2) the greater than expected claim emergence has caused us to increase our selected development factors. As a result of the higher loss cost estimates, our trend factors that we calculate over the same time periods are higher than we calculated in our December 31, 2010 review. For example, the estimated annual loss cost trend rate over the five-year period ending December 2010 is $+3.8 \%$ based on data as of June 30, 2011 and was $+1.9 \%$ based on data as of December 31, 2010.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending June 11: $+0.8 \%$
Five-year period ending June 11: $+3.1 \%$
Four-year period ending June 11: $+4.4 \%$
Three-year period ending June 11: +9.4\%
Ten-year period ending December 10: -0.1\%
Five-year period ending December 10: $+3.8 \%$

Four-year period ending December 10: $+2.5 \%$
Three-year period ending December 10: $+7.1 \%$

Ten-year period ending June 10: -0.7\%
Five-year period ending June 10: $+2.0 \%$
Four-year period ending June 10: $+1.7 \%$
Three-year period ending June 10: $+3.0 \%$
Ten-year period ending June 11, excluding the two highest/lowest values: $+0.7 \%$
Five-year period ending June 11, excluding the highest/lowest values: $+2.4 \%$
Ten-year period ending December 10, excluding the two highest/lowest values: $+0.6 \%$ Five-year period ending December 10, excluding the highest/lowest values: $+1.7 \%$

Ten-year period ending June 10, excluding the two highest/lowest values: $+0.6 \%$
Five-year period ending June 10, excluding the highest/lowest values: $+1.7 \%$
In our last review, we selected a past loss cost trend of $0 \%$ based on the average of the observed trend patterns over the ten-year and five-year measurement periods excluding high/low data points. With each of the five-year trends excluding the high/low values higher than the corresponding ten-year trend, and these five-year trends being reasonably consistent, we select $+2.0 \%$ - the average of the three five-year trend rates excluding the highest/lowest values - as the past trend rate

## Future

Our selected past loss cost trend rate is $+2.0 \%$. Our prior selected future loss cost trend rate was $+2.0 \%$.

The average annual loss cost trends over the three-year periods ending June 30, 2011 and ending December 31, 2010 are $+9.4 \%$ and $+7.1 \%$, respectively. However, excluding the highest and lowest data points the trends are $-0.4 \%$ and $+6.3 \%$, respectively.

We select a future loss cost trend rate of $+2.5 \%$, the approximate average of our selected past loss cost trend rate and the average of the two "excluding high/low" loss cost trend rates noted above.

## 2011-2

## Past

The data through December 31, 2011 shows the loss cost for 2011-2 to be higher than the 2010-2 loss cost by approximately $9 \%$ mainly attributable to an increase in frequency. In contrast, the loss cost for the 2011 accident year is higher than the loss cost for accident year 2010 by approximately $2.5 \%$.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending December 11: $+1.3 \%$
Five-year period ending December 11: $+4.3 \%$
Four-year period ending December 11: $+7.5 \%$
Three-year period ending December 11: $+9.5 \%$
Ten-year period ending June 11: $+0.8 \%$
Five-year period ending June 11: $+3.9 \%$
Four-year period ending June 11: $+5.2 \%$
Three-year period ending June 11: $+8.9 \%$
Ten-year period ending December 10: +0.3\%
Five-year period ending December 10: $+4.5 \%$
Four-year period ending December 10: $+3.3 \%$
Three-year period ending December 10: $+8.8 \%$
Ten-year period ending December 11, excluding the two highest/lowest values: $+0.8 \%$
Five-year period ending December 11, excluding the highest/lowest values: $+3.6 \%$
Ten-year period ending June 11, excluding the two highest/lowest values: $+1.3 \%$ Five-year period ending June 11, excluding the highest/lowest values: $+3.5 \%$

Ten-year period ending December 10, excluding the two highest/lowest values: $+0.6 \%$
Five-year period ending December 10, excluding the highest/lowest values: $+3.2 \%$
In our last review, in light of the consistency in the indicated trends, we selected a past loss cost trend of $+2 \%$ based on the average of the observed trend patterns for the five-year measurement periods excluding high/low data points. Again, due to the consistency in the indicated trends, we again average the indicated trends over the five-year measurement periods excluding various high and low points, and select a past loss cost trend rate of $+3.5 \%$.

## Future

Our selected past loss cost trend rate is $+3.5 \%$. Our prior selected future loss cost trend rate was $+2.5 \%$.

The average loss cost trend rates over the three-year periods ending June 30, 2011 and ending December 31, 2011 are $+8.9 \%$ and $+9.5 \%$, respectively. However, excluding the highest and lowest data points the trend rates are $+0.7 \%$ and $+1.5 \%$, for the periods ending June 30, 2011 and December 31, 2011, respectively. In our opinion the more recent data points do not provide clear evidence of an increase in the trend rate.

We select a future loss cost trend rate of $+3.5 \%$, the same as our selected past loss cost trend rate.

## 2012-1

## Past

The data through June 30, 2012 shows the loss cost for 2012-1 to be higher than the 2011-1 loss cost by approximately $1 \%$, attributable to an $8 \%$ increase in severity offset by $7 \%$ decrease in frequency. In comparison, the loss cost for the fiscal accident year ending June 302012 increased by $2 \%$ over the loss cost for the fiscal accident year ending June 30, 2011.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending June 12: $+1.6 \%$
Five-year period ending June 12: $+5.3 \%$
Four-year period ending June 12: $+7.0 \%$
Three-year period ending June 12: $+2.4 \%$
Ten-year period ending December 11: $+1.4 \%$
Five-year period ending December 11: $+4.5 \%$
Four-year period ending December 11: $+7.5 \%$
Three-year period ending December 11: +9.0\%
Ten-year period ending June 11: $+1.1 \%$
Five-year period ending June 11: $+4.5 \%$
Four-year period ending June 11: $+6.1 \%$
Three-year period ending June 11: +10.3\%
Ten-year period ending June 12, excluding the two highest/lowest values: $+1.2 \%$
Five-year period ending June 12, excluding the highest/lowest values: $+5.0 \%$
Ten-year period ending December 11, excluding the two highest/lowest values: $+1.7 \%$
Five-year period ending December 11, excluding the highest/lowest values: $+3.5 \%$
Ten-year period ending June 11, excluding the two highest/lowest values: $+1.3 \%$ Five-year period ending June 11, excluding the highest/lowest values: $+3.9 \%$

Due to the consistency in the indicated trends, and as we did in our prior study, we average the indicated trends over the five-year measurement periods excluding various high and low points, and select a past loss cost trend rate of $+4.0 \%$ (the approximate average).

The increase in our selected past loss cost trend, from $+3.5 \%$ in our prior review to $+4.0 \%$ in this review, is due, in part, to the change in our estimates of the prior loss costs.

## Future

Our selected past loss cost trend rate is $+4.0 \%$. Our prior selected future loss cost trend rate was $+3.5 \%$.

The average loss cost trend rates over the three-year periods ending December 31, 2011 and ending June 30, 2012 are $+9.0 \%$ and $+2.4 \%$, respectively. However, excluding the highest and lowest data points the trend rates are $+5.2 \%$ and $+2.4 \%$, for the periods ending December 31, 2011 and June 30, 2012, respectively. In our opinion the more recent data points do not provide clear evidence of a change in the trend rate from our selected past trend rate.

We select a future loss cost trend rate of $+4.0 \%$, the same as our selected past loss cost trend rate.

## 2012-2

## Past

The data through December 31, 2012 shows the loss cost for 2012-2 to be higher than the 2011-2 loss cost by approximately $4.4 \%$, attributable to an $8.8 \%$ increase in severity offset by $4.1 \%$ decrease in frequency. The loss cost for the accident year ending 2012 increased by $5 \%$ over the loss cost for the accident year ending 2011.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending December 12: $+2.1 \%$
Five-year period ending December 12: $+5.8 \%$
Four-year period ending December 12: $+5.7 \%$
Three-year period ending December 12: $+1.9 \%$
Ten-year period ending June 12: $+1.6 \%$
Five-year period ending June 12: $+5.0 \%$
Four-year period ending June 12: $+6.7 \%$
Three-year period ending June 12: $+2.3 \%$
Ten-year period ending December 11: $+1.3 \%$
Five-year period ending December 11: $+3.6 \%$
Four-year period ending December 11: $+6.6 \%$
Three-year period ending December 11: $+7.2 \%$
Ten-year period ending December 12, excluding the two highest/lowest values: $+2.8 \%$
Five-year period ending December 12, excluding the highest/lowest values: $+5.2 \%$
Ten-year period ending June 12, excluding the two highest/lowest values: $+2.2 \%$
Five-year period ending June 12, excluding the highest/lowest values: $+4.3 \%$
Ten-year period ending December 11, excluding the two highest/lowest values: $+1.8 \%$
Five-year period ending December 11, excluding the highest/lowest values: $+3.1 \%$
Due to the consistency in the indicated trends, and as we did in our prior study, we average the indicated trends over the five-year measurement periods excluding various high and low points, and select a past loss cost trend rate of $+4.0 \%$ (the approximate average).

## Future

Our selected past loss cost trend rate is $+4.0 \%$. Our prior selected future loss cost trend rate was $+4.0 \%$.

The average loss cost trend rates over the three-year periods ending December 31, 2012, ending June 30, 2012 and ending December 31, 2011 are $+1.9 \%, 2.3 \%$ and $+7.2 \%$, respectively. In our opinion the more recent data points do not provide clear evidence of a change in the trend rate from our selected past trend rate.

We select a future loss cost trend rate of $+4.0 \%$, the same as our selected past loss cost trend rate.

## 2013-1

## Past

We estimate that during 2013-1 compared to the prior accident half year (2012-1) the frequency rate, the average severity, and the loss cost increased by approximately $+4 \%,+7 \%$, and $+12 \%$, respectively. We estimate that the loss cost for the fiscal accident year ending June 30, 2013 increased by $7 \%$ over the loss cost for the fiscal accident year ending June 30, 2012.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending June 13: $+3.2 \%$
Five-year period ending June 13: $+6.0 \%$
Four-year period ending June 13: $+3.1 \%$
Three-year period ending June 13: $+5.5 \%$
Ten-year period ending December 12: $+2.0 \%$
Five-year period ending December 12: $+5.8 \%$
Four-year period ending December 12: $+5.4 \%$
Three-year period ending December 12: $+1.2 \%$
Ten-year period ending June 12: $+1.6 \%$
Five-year period ending June 12: $+5.0 \%$
Four-year period ending June 12: $+6.4 \%$
Three-year period ending June 12: $+1.1 \%$
Ten-year period ending June 13, excluding the two highest/lowest values: $+3.0 \%$
Five-year period ending June 13, excluding the highest/lowest values: $+6.8 \%$

Ten-year period ending December 12, excluding the two highest/lowest values: $+1.7 \%$
Five-year period ending December 12, excluding the highest/lowest values: $+5.5 \%$
Ten-year period ending June 12, excluding the two highest/lowest values: $+1.2 \%$ Five-year period ending June 12, excluding the highest/lowest values: $+4.8 \%$

Due to the consistency in the indicated trends, and as we did in our prior study, we average the indicated trends over the five-year measurement periods excluding various high and low points, and select a past loss cost trend rate of $+5.5 \%$ (the approximate average).

Future
As we see no clear evidence of a recent change in trend pattern, we select a future loss cost trend of $+5.5 \%$.

## 2013-2

## Past

We estimate that during 2013-2 compared to the prior accident half year (2012-2) the frequency rate, the average severity, and the loss cost changed by approximately $-9.3 \%,+5.4 \%$, and $-4.4 \%$, respectively. We estimate that the loss cost for the accident year ending December 31, 2013 increased by $+1.2 \%$ over the loss cost for the accident year ending December 31, 2012.

Historical loss cost trends (including the time and seasonality parameters) are as follows:
Ten-year period ending December 13: $+3.0 \%$
Five-year period ending December 13: $+4.4 \%$
Four-year period ending December 13: $+1.3 \%$
Three-year period ending December 13: $+2.7 \%$
Ten-year period ending June 13: $+3.1 \%$
Five-year period ending June 13: $+5.8 \%$
Four-year period ending June 13: $+2.7 \%$
Three-year period ending June 13: $+4.9 \%$
Ten-year period ending December 12: $+2.0 \%$
Five-year period ending December 12: $+5.6 \%$
Four-year period ending December 12: $+5.6 \%$
Three-year period ending December 12: $+0.7 \%$
Ten-year period ending December 13, excluding the two highest/lowest values: $+2.7 \%$
Five-year period ending December 13, excluding the highest/lowest values: $+1.5 \%$
Ten-year period ending June 13, excluding the two highest/lowest values: $+2.8 \%$
Five-year period ending June 13, excluding the highest/lowest values: $+3.6 \%$
Ten-year period ending December 12, excluding the two highest/lowest values: $+1.6 \%$ Five-year period ending December 12, excluding the highest/lowest values: $+5.2 \%$

Based on the indicated trends, and as we did in our prior study, we average the indicated trends over the five-year measurement periods excluding various high and low points, and select a past loss cost trend rate of $+3.5 \%$ (the approximate average).

Future
As we see no clear evidence of a recent change in trend pattern, we select a future loss cost trend of $+3.5 \%$.

