

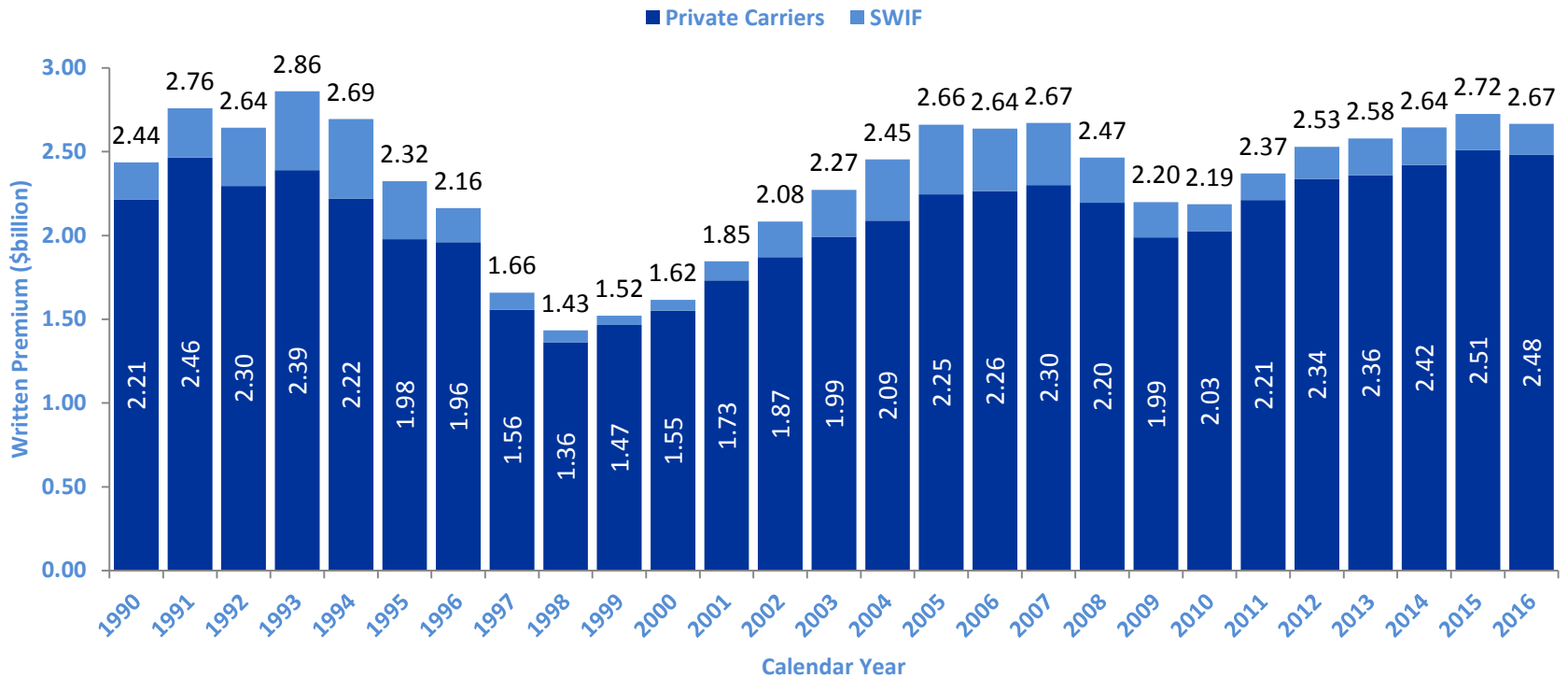
# STATE of the LINE REPORT

# 2017

Pennsylvania Compensation Rating Bureau

# Pennsylvania Workers Compensation Insurance Market Results

# Pennsylvania Direct Written Premium

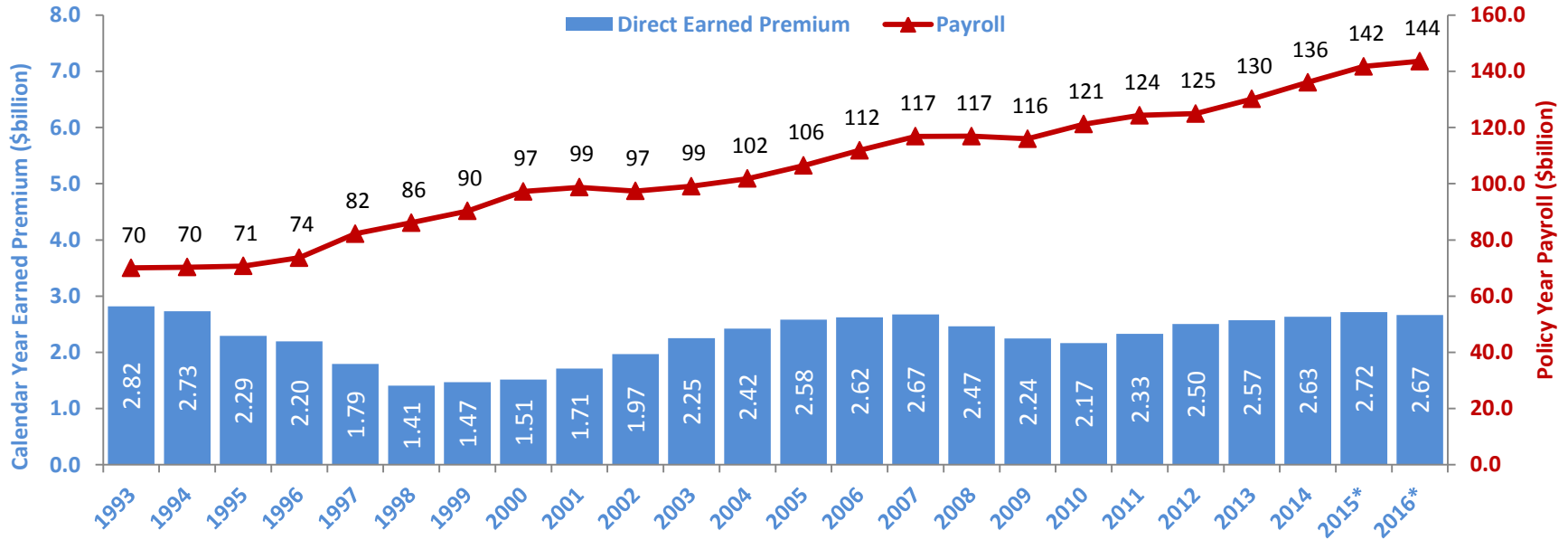


The level of written premium has fluctuated over the 27 years shown. Since 2010, it has increased each year with the exception of 2016.

Source:

A.M. Best, Inc.: Best's State/Line Report

# Pennsylvania Earned Premium and Payroll History



Earned Premium has risen and fallen over the 23 years shown, returning in 2015 and 2016 to the levels seen in 1994 and 2007. Payroll has doubled over the same time period.

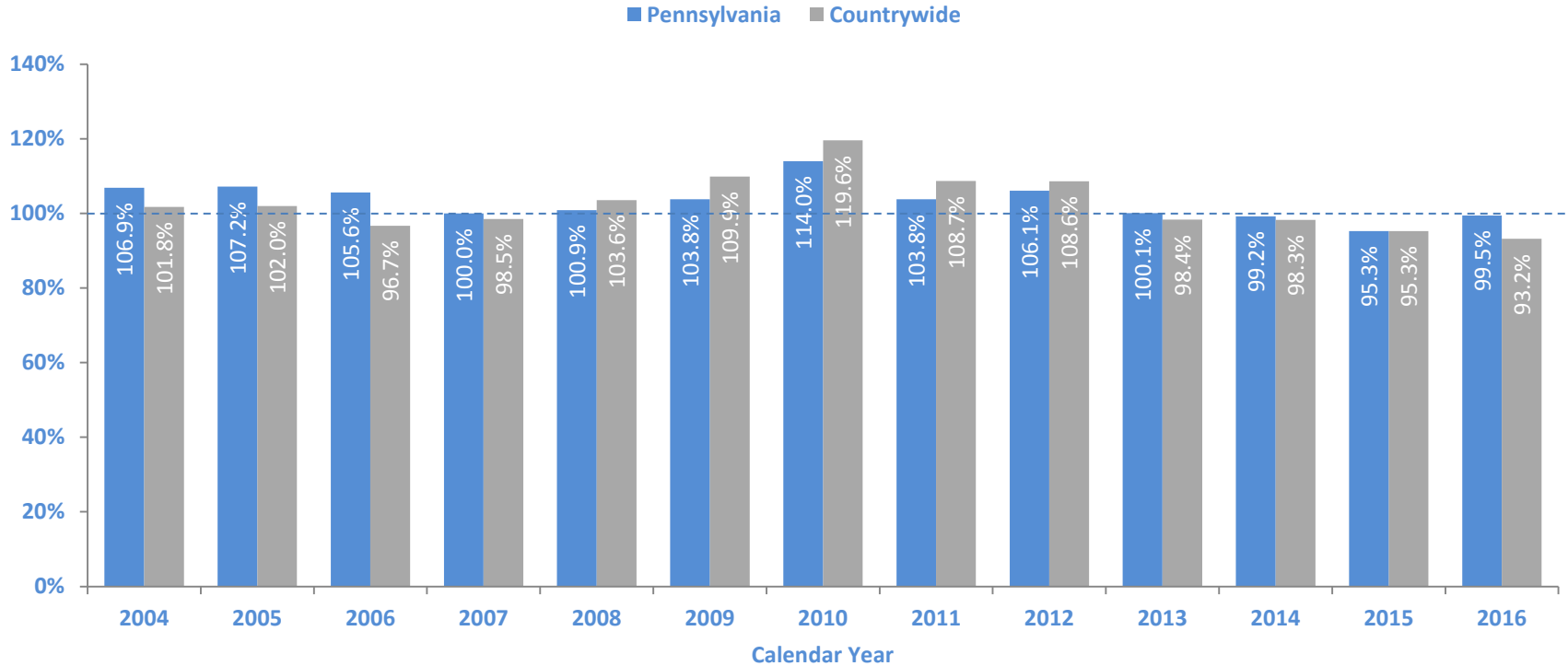
**Sources:**

Premium: A.M. Best, Inc.: Best's State/Line Report; Calendar Year Basis

Payroll: PCRB Financial Data Calls as of 12/31/2016, adjusted to an "effective" level to reflect deductible discounts; Policy Year Basis.

\* Payroll for Policy Years 2015 and 2016 is projected using the Statewide Average Weekly Wage.

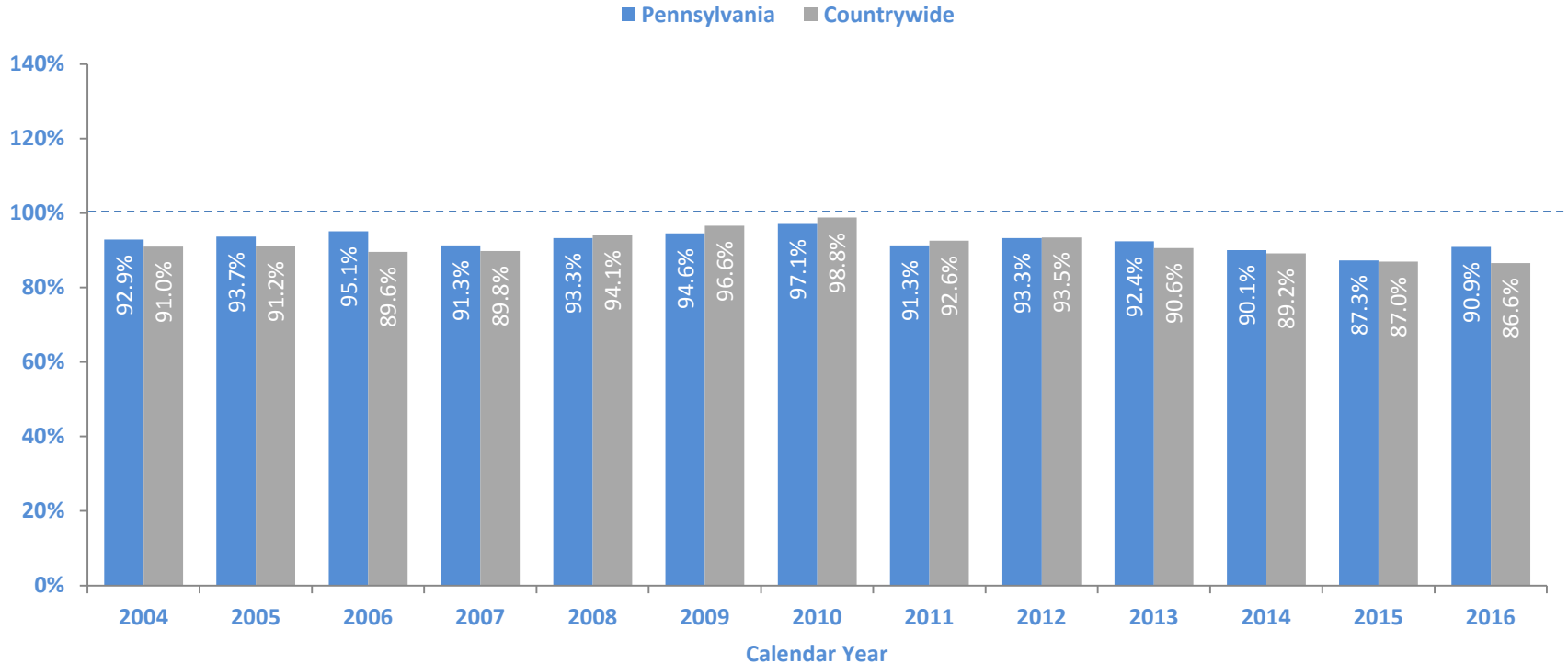
# Combined Ratios Pennsylvania and Countrywide



The Combined Ratio is the sum of the loss, LAE and underwriting expense ratios to premium, and does not include income from investments. A combined ratio of less than 100 indicates an overall underwriting profit.

Source:  
2017 NAIC Profitability by Line by State in 2016

# After-tax Operating Ratios Pennsylvania and Countrywide



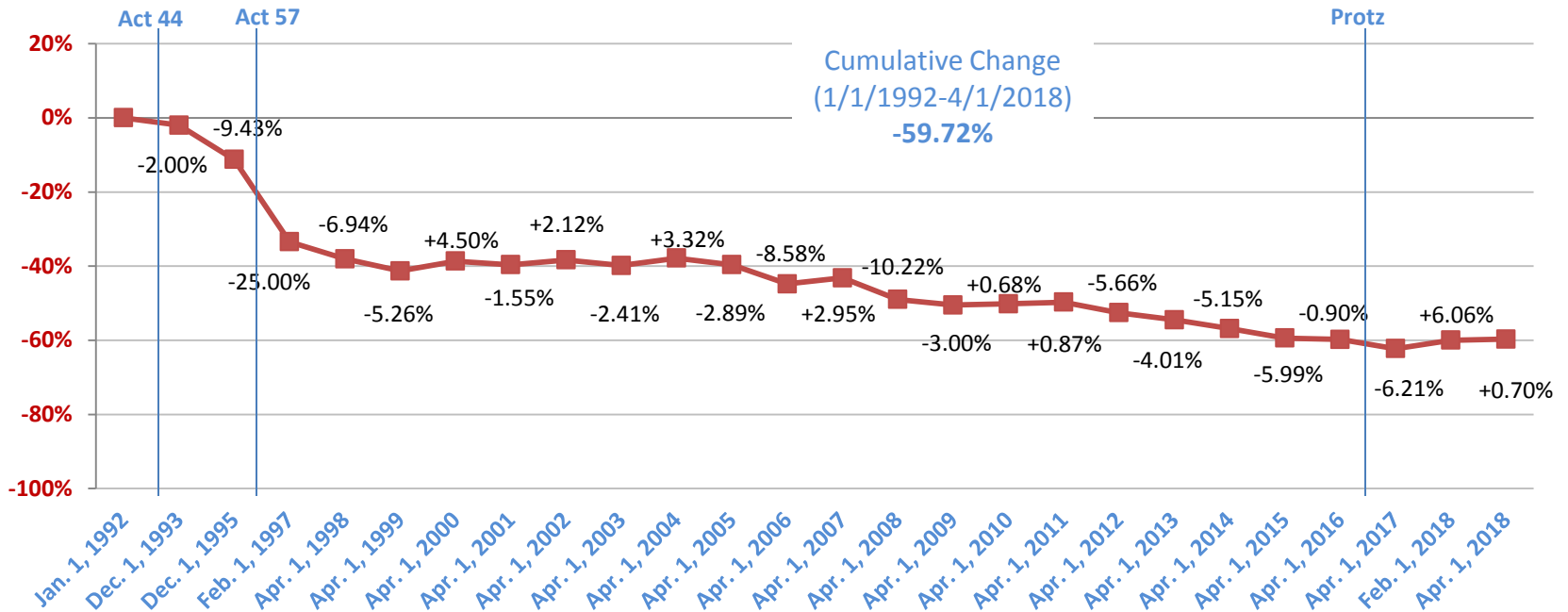
The After-tax Operating Ratio is the sum of the Combined Ratio, Investment Gain on Insurance Transactions and a reduction for Federal Tax on Insurance Transactions. An operating ratio of less than 100 indicates an overall operating profit.

Source:

2017 NAIC Profitability by Line by State in 2016

# Loss Costs and Market-wide Pricing

# Pennsylvania Approved Loss Cost Change History

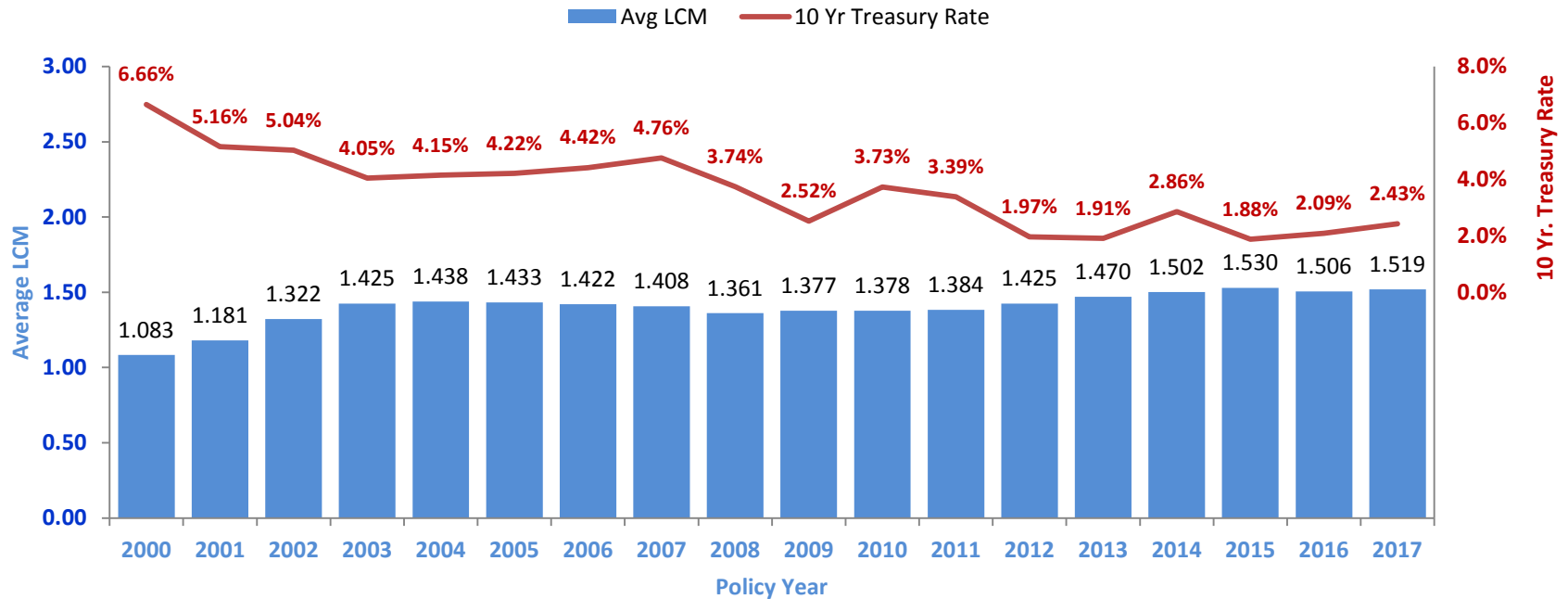


## Significant Milestones:

- Act 44 of 1993 introduced several medical cost containment features into the Pennsylvania Workers Compensation Act, and required that the PCRB file loss costs rather than rates.
- Act 57 of 1996 introduced several features that impacted indemnity benefits.
- Protz v. WCAB (*Derry Area School District*), June 2017, eliminated the provisions in the Workers Compensation Act that provided for Impairment Rating Evaluations.



# Pennsylvania Average Loss Cost Multiplier



The Average Loss Cost Multiplier is the ratio of Total Carrier Manual Premium to Total Loss Costs at PCRB Level, as reported to the PCRB. It represents the average loss cost multiplier (LCM), weighted by loss costs. Carriers must file their LCMs with the Insurance Department to convert PCRB loss costs, which only include claim costs, into manual rates, including loss adjustment expense, underwriting expenses, a provision for profit and contingencies, and any deviation to reflect differences in loss experience.

Investment returns, measured here by the 10-year Treasury Rate, are somewhat correlated with the magnitude of the average loss cost multiplier. The correlation coefficient,  $\rho$ , is -80.3%. The implication is that in times of higher investment returns, average loss cost multipliers tend to be lower.

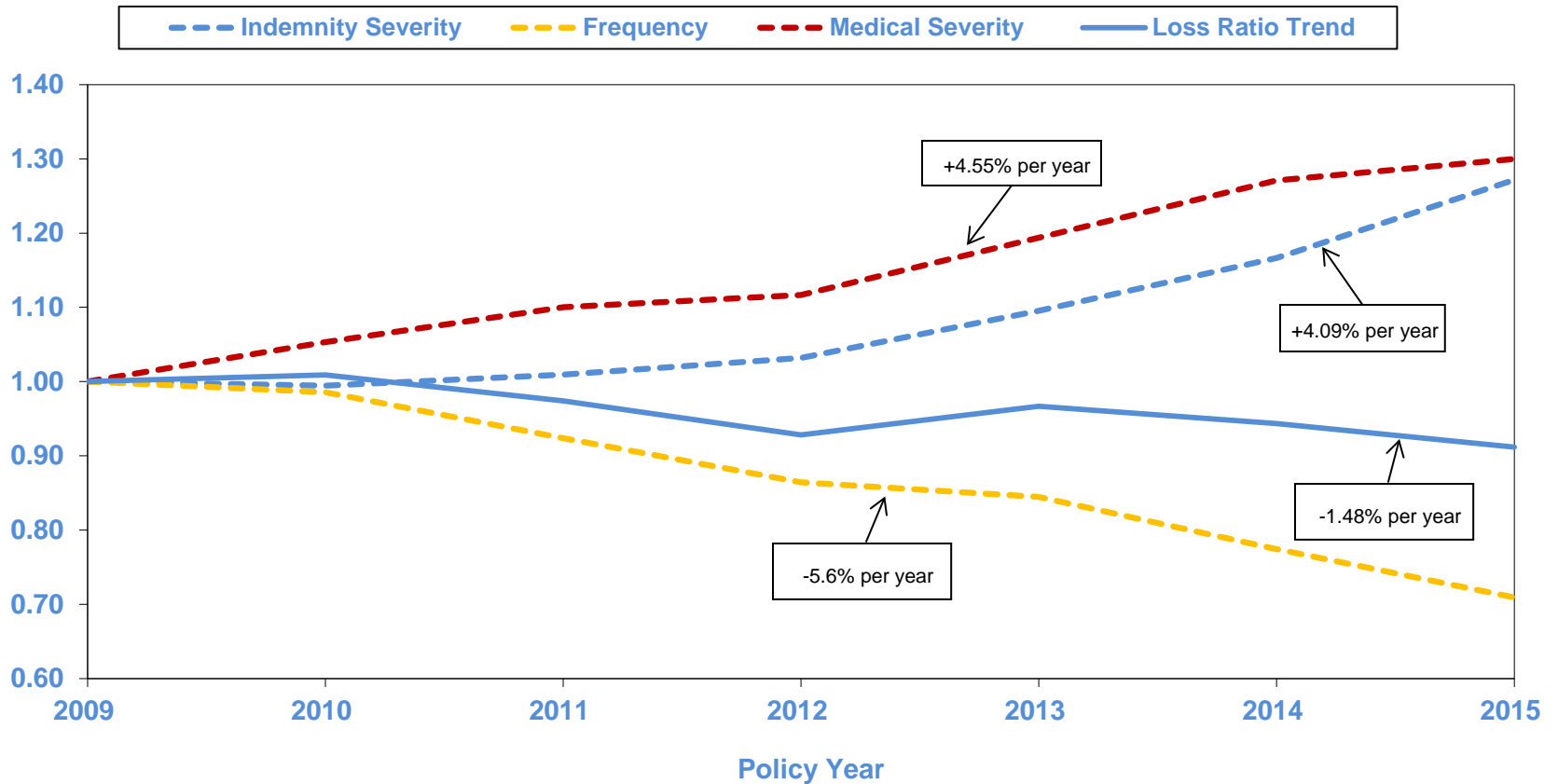
Sources:

PCRB Market Profile Report; US Treasury

# Claim Frequency and Severity Trends

# Pennsylvania Loss Components

## Frequency, Indemnity Severity, Medical Severity



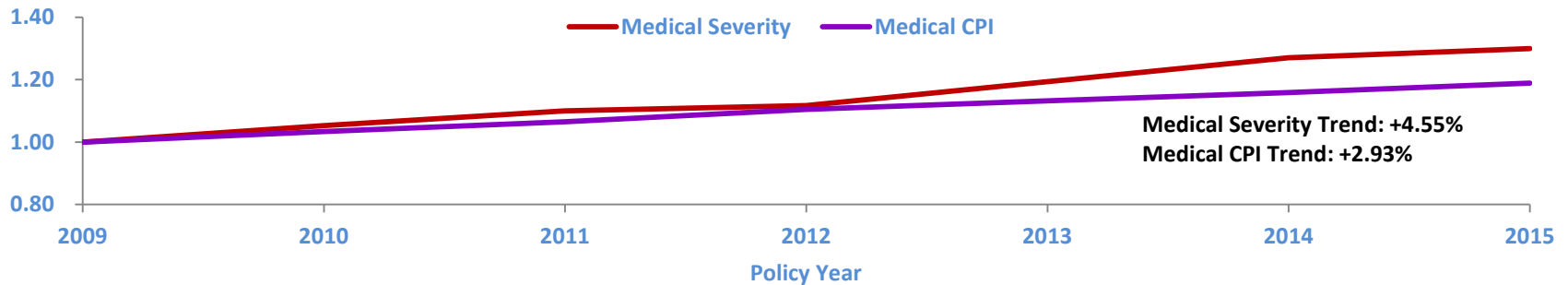
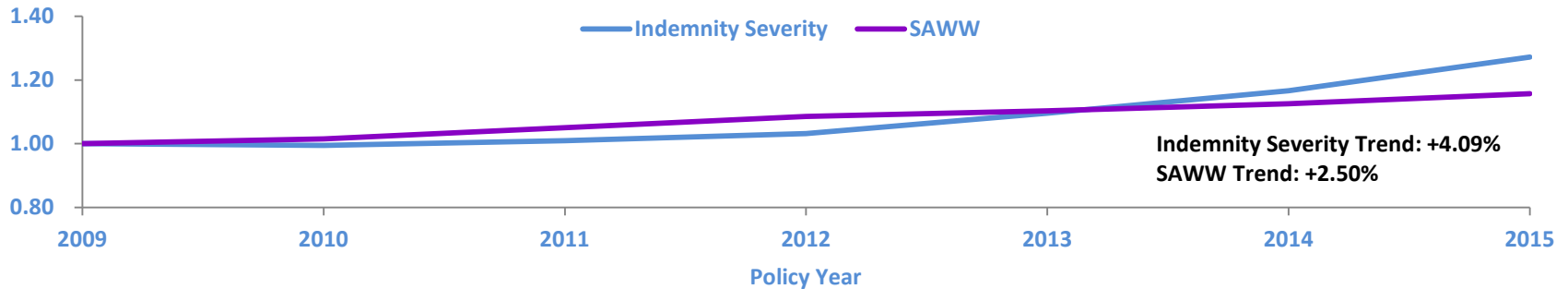
The combined impact of Frequency Trend, -5.6%, Indemnity Severity Trend, +4.09%, and Medical Severity Trend, +4.55%, is a Loss Ratio Trend of -1.48%.

Indexed to 1.00 at Policy Year 2009

Source:

PCRB 2018 Loss Cost Revision

# Pennsylvania Severity and Broad Cost Indices



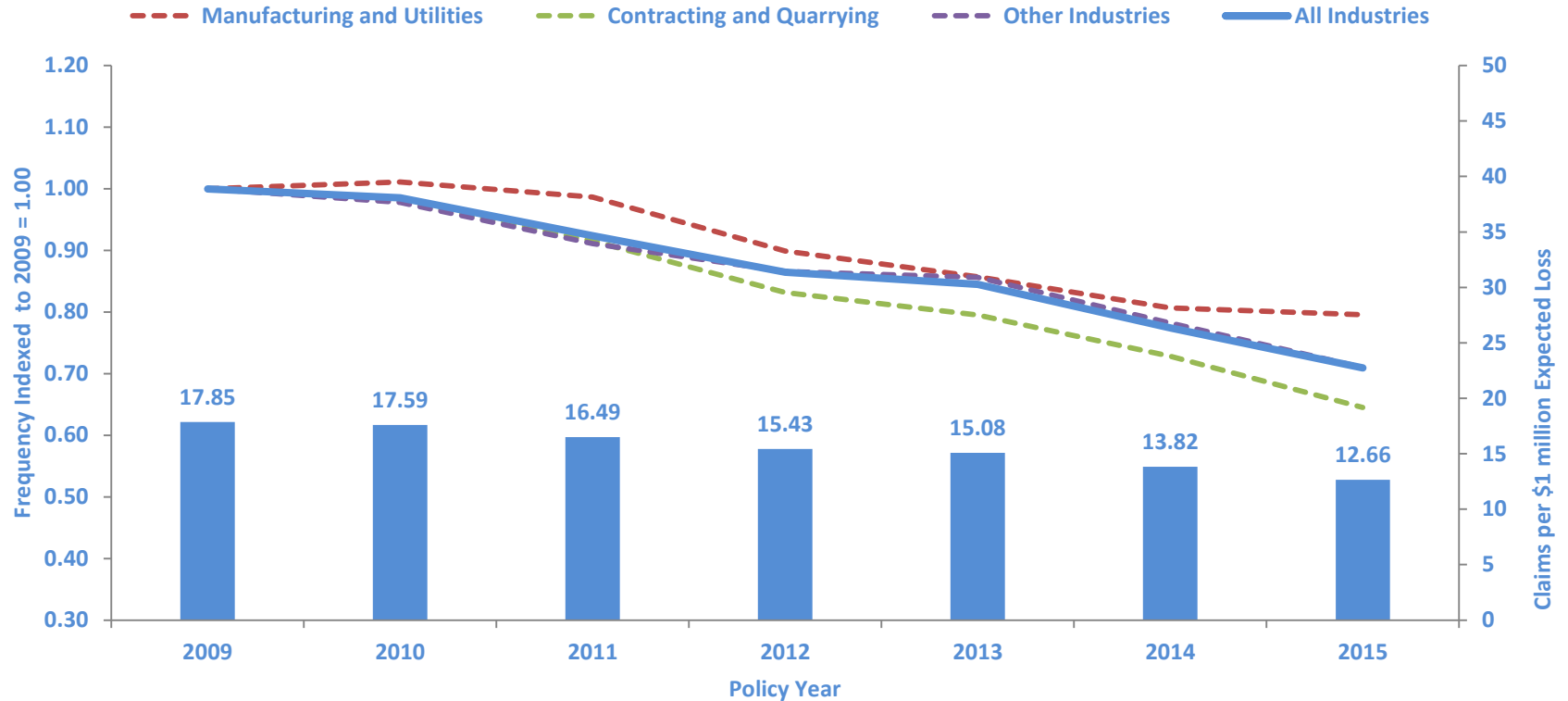
Changes in indemnity severity appear to be somewhat consistent with the changes to the state's average weekly wage, but it has increased more in recent years. Medical severity has increased at a faster rate than the Medical Consumer Price Index. After adjustment for HB1846, medical severity trend becomes +4.36%.

Indexed to 1.00 at Policy Year 2009

Sources:

- PCRB 2018 Loss Cost Revision
- PA Department of Labor
- US Bureau of Labor Statistics

# Claim Frequency Trend is Consistent by Industry Group



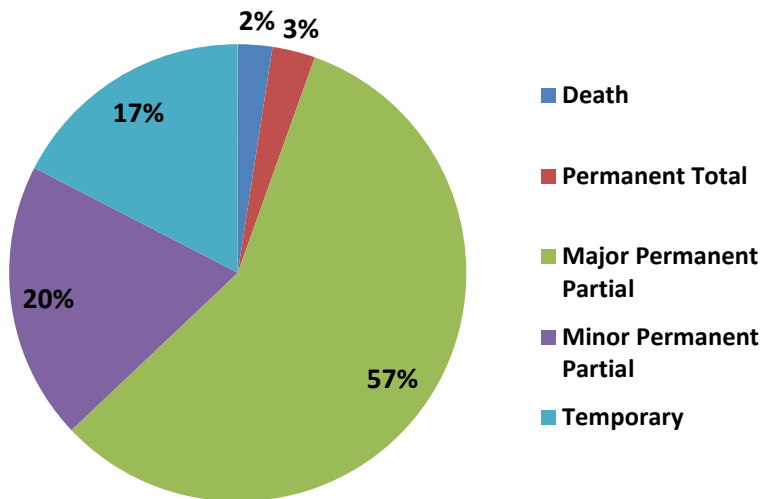
Notes: Excludes large deductible business  
 Claim frequency is measured by the number of claims at first report level per \$1 million of expected losses.  
 Decreasing frequency contributes to reductions in statewide loss cost levels.  
 Indexed to 1.00 at Policy Year 2009.

Source:  
 PCRB 2018 Loss Cost Revision

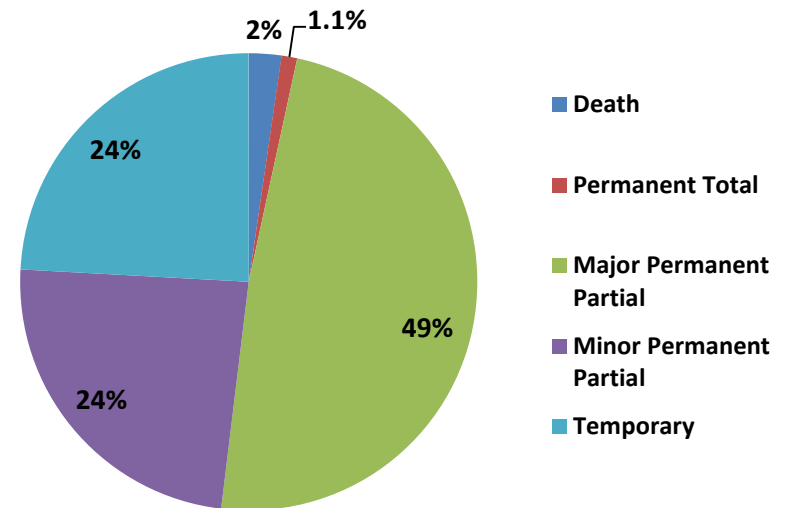
# Cost Distributions among Claims

# Indemnity Benefits by Type of Injury

5 Policy Year Average (2006-2010)



5 Policy Year Average (2010-2014)



Over these time periods, the portion of indemnity benefits attributable to Permanent Total and Major Permanent Partial injuries decreased by 2 and 8 percentage points, respectively, while the portion attributable to Minor Permanent Partial and Temporary injuries increased by 4 and 7 percentage points, respectively.

Based on losses developed to ultimate values.

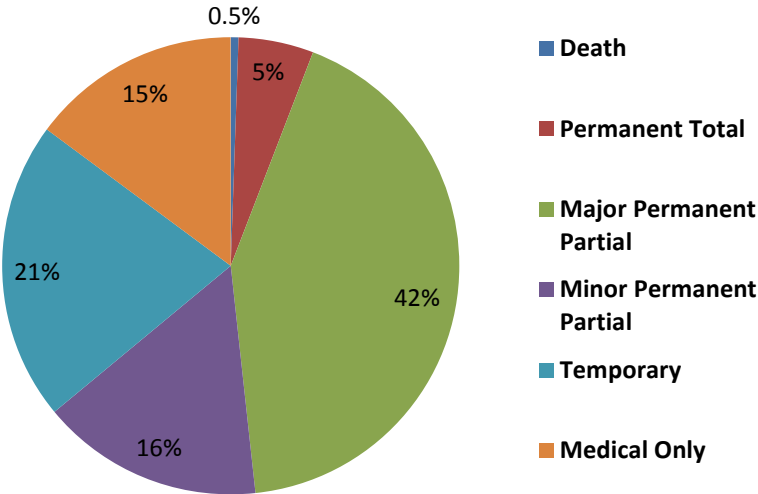
Sources:

2006-2010: PCRB 2014 Loss Cost Revision

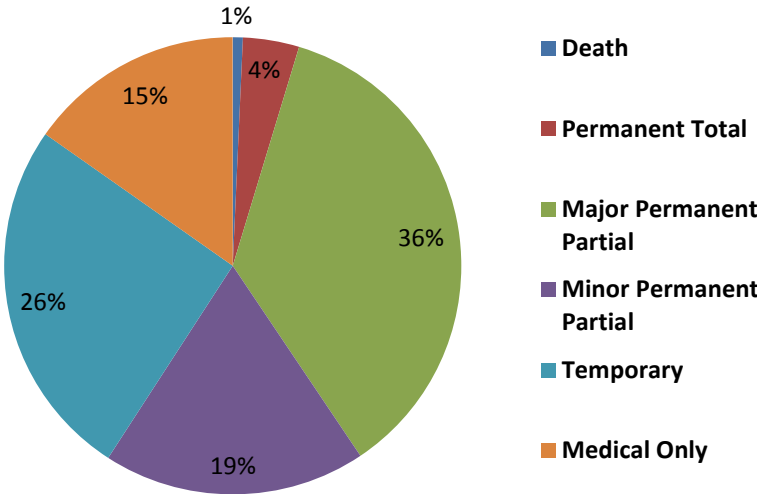
2010-2014: PCRB 2018 Loss Cost Revision

# Medical Benefits by Type of Injury

5 Policy Year Average (2006-2010)



5 Policy Year Average (2010-2014)



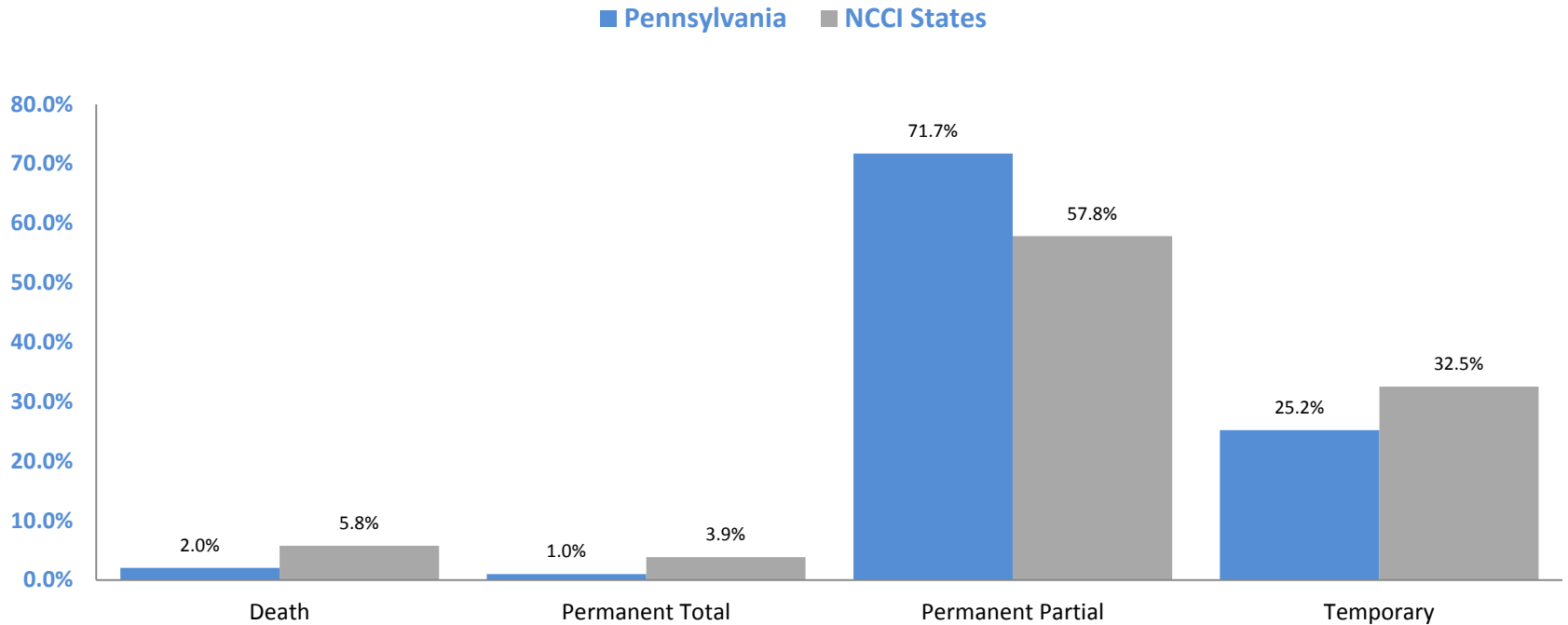
Over these time periods, the portion of medical benefits attributable to Permanent Total and Major Permanent Partial injuries decreased by 1 and 6 percentage points, respectively; the portion attributable to Minor Permanent Partial and Temporary injuries increased by 3 and 5 percentage points, respectively; the portion attributable to Medical Only claims remained the same.

Based on losses developed to ultimate values.

Sources:  
 2006-2010: PCRB 2014 Loss Cost Revision  
 2010-2014: PCRB 2018 Loss Cost Revision



# Ultimate Indemnity Benefits by Type of Injury



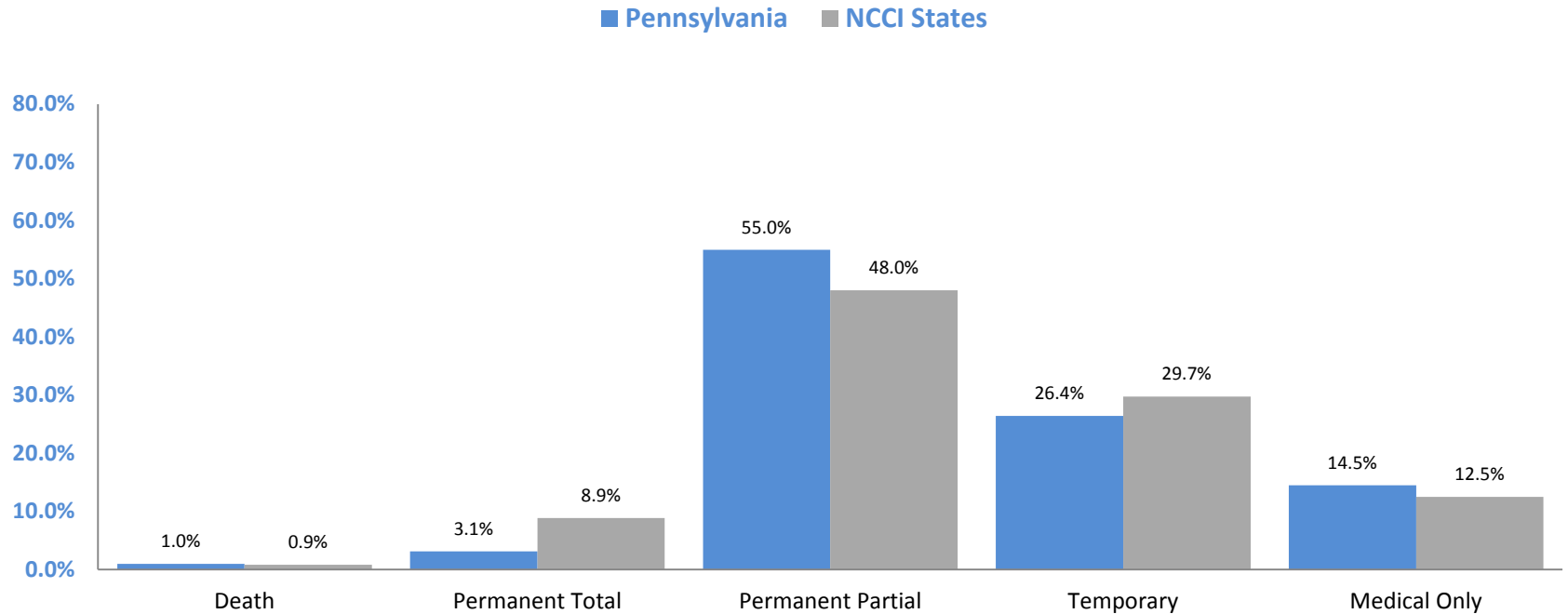
Pennsylvania has a higher percentage of Permanent Partial benefits and a lower percentage of Temporary benefits in comparison to the NCCI states.

Sources:

PCRB 2018 Loss Cost Revision

NCCI States: March, 2018, Annual Statistical Bulletin, Interim Exhibits

# Ultimate Medical Benefits by Type of Injury



The largest component of medical costs is payments for Permanent Partial (more than half of total medical cost). The NCCI States have a higher percentage of Permanent Total and Temporary injury types, while Pennsylvania has higher percentages of Permanent Partial and Medical Only claims.

Sources:

PCRB 2018 Loss Cost Revision

NCCI States: March, 2018, Annual Statistical Bulletin, Interim Exhibits

# Distribution of Incurred Losses

## Average Cost per Claim

Hazard Group	Industry Group		
	Manufacturing and Utilities	Contracting and Quarrying	Other Industries
A	0	28,268	23,023
B	0	30,747	28,865
C	0	30,244	30,342
D	41,699	30,684	35,120
E	40,045	35,530	40,597
F	49,852	35,581	56,095
G	67,833	56,275	45,949

## Claim Count Distribution

Hazard Group	Industry Group		
	Manufacturing and Utilities	Contracting and Quarrying	Other Industries
A	0.00%	0.04%	4.84%
B	0.00%	2.65%	13.63%
C	0.00%	7.92%	21.71%
D	0.13%	3.98%	8.86%
E	5.80%	3.28%	12.15%
F	10.28%	0.59%	1.83%
G	1.53%	0.03%	0.75%

The average cost per claim is the total of indemnity and medical incurred loss, excluding medical only claims, divided by the number of lost time claims.

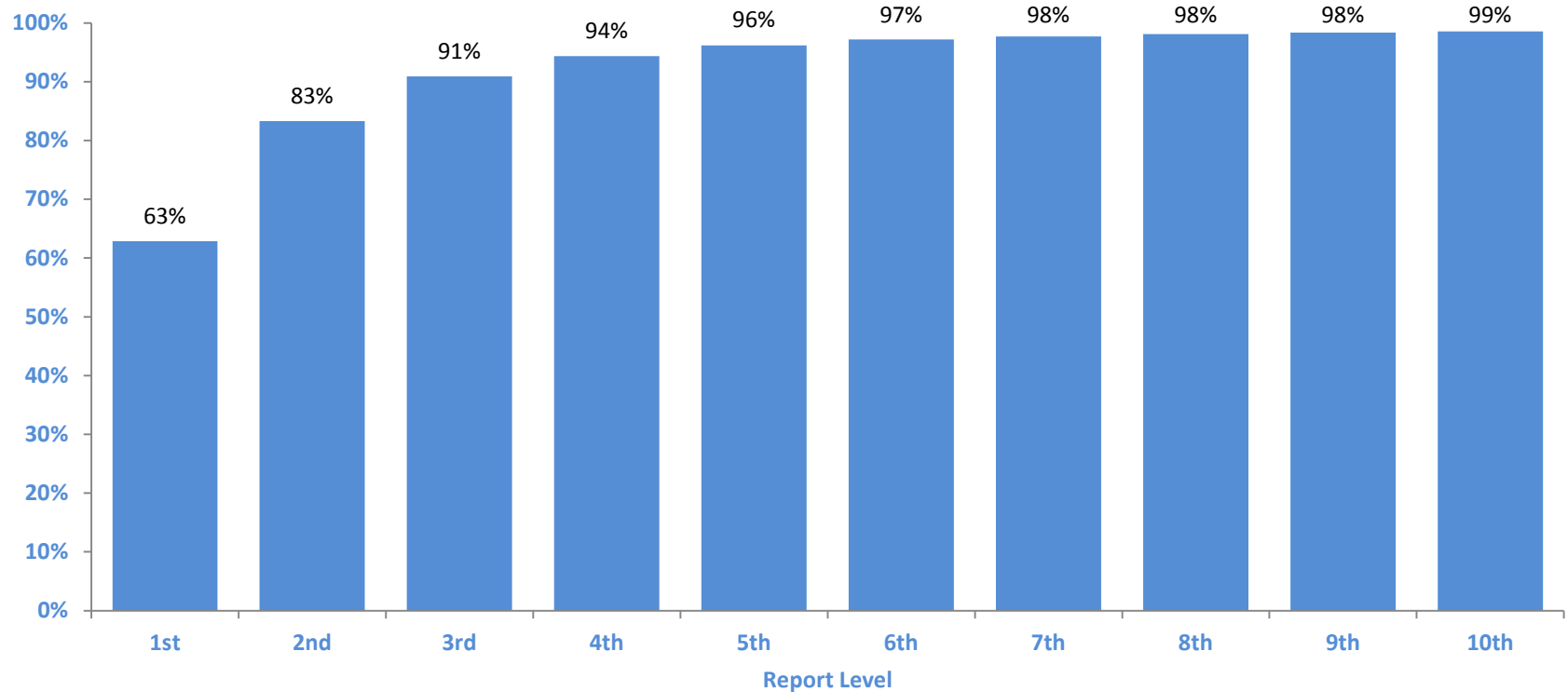
The claim cost distribution is the portion of total loss in each hazard group and industry group combination. The sum of the percentages in all 21 cells is 100%.

Source:

PCRB 2018 Loss Cost Revision, Indemnity claims in Policy Year 2014

# Measures of Claim Reporting

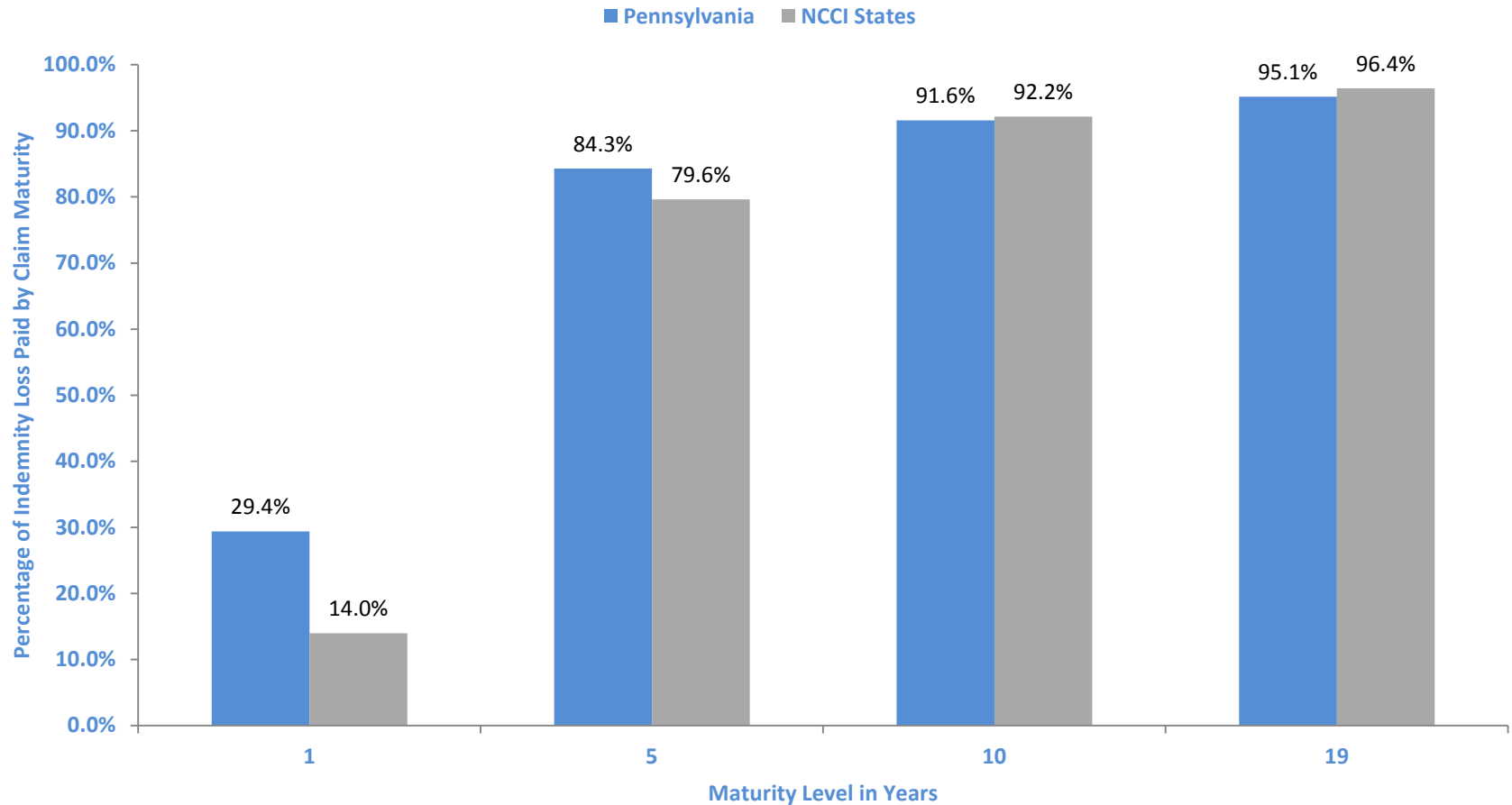
# Portion of Reported Indemnity Claims Closed



The rate at which claims are settled and closed impacts the ultimate claim costs. The chart shows the percentage of indemnity claims that closed at each report level. Approximately 4% of indemnity claims remain open at 5<sup>th</sup> report in Pennsylvania.

Source:  
PCRB 2018 Loss Cost Revision

# Portion of Ultimate Indemnity Loss Paid by Claim Maturity

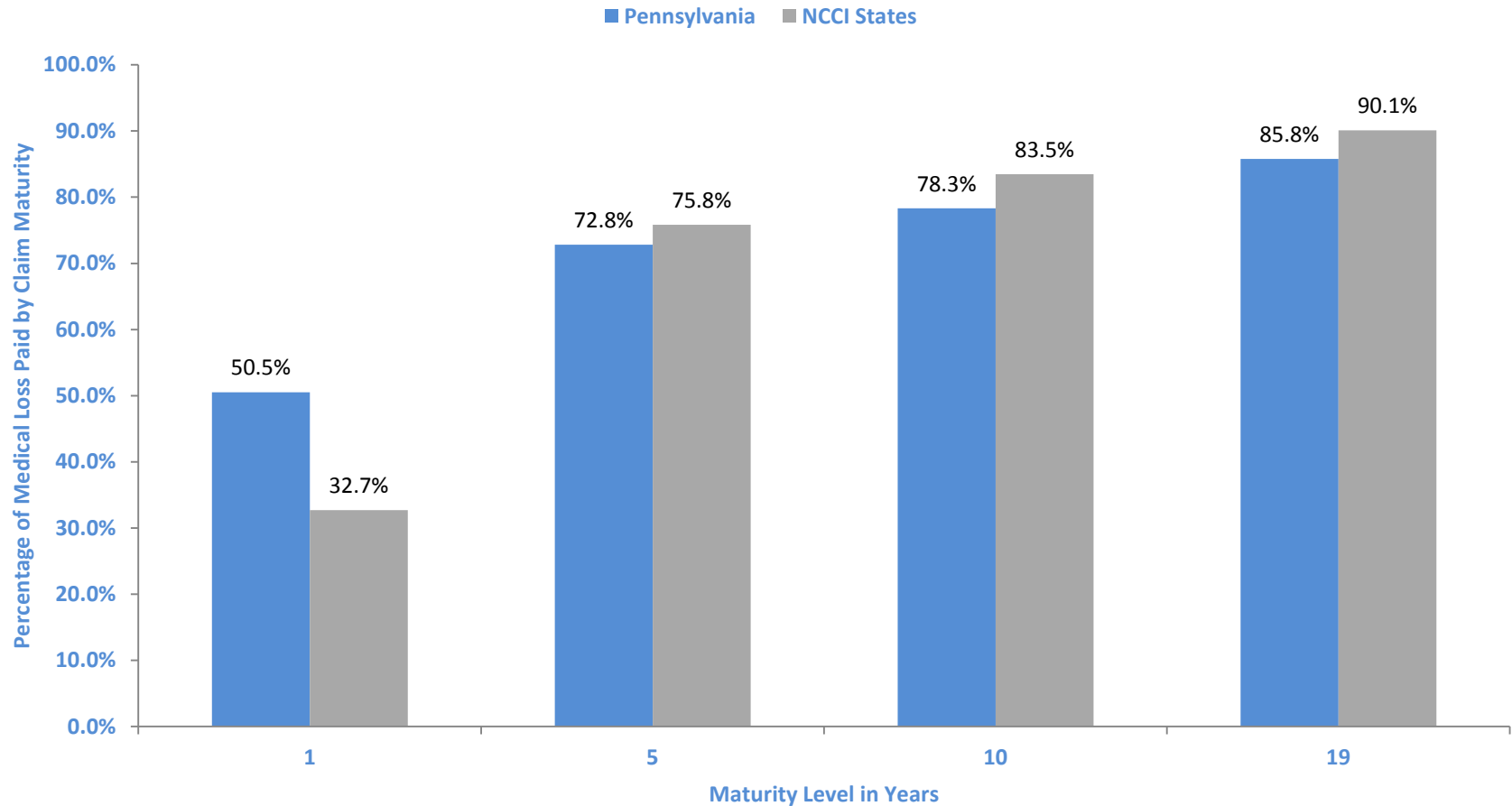


Sources:

PCRB 2018 Loss Cost Revision, on a Policy Year basis

NCCI States: March, 2018, Annual Statistical Bulletin, Interim Exhibits, on an Accident Year basis

# Portion of Ultimate Medical Loss Paid by Claim Maturity

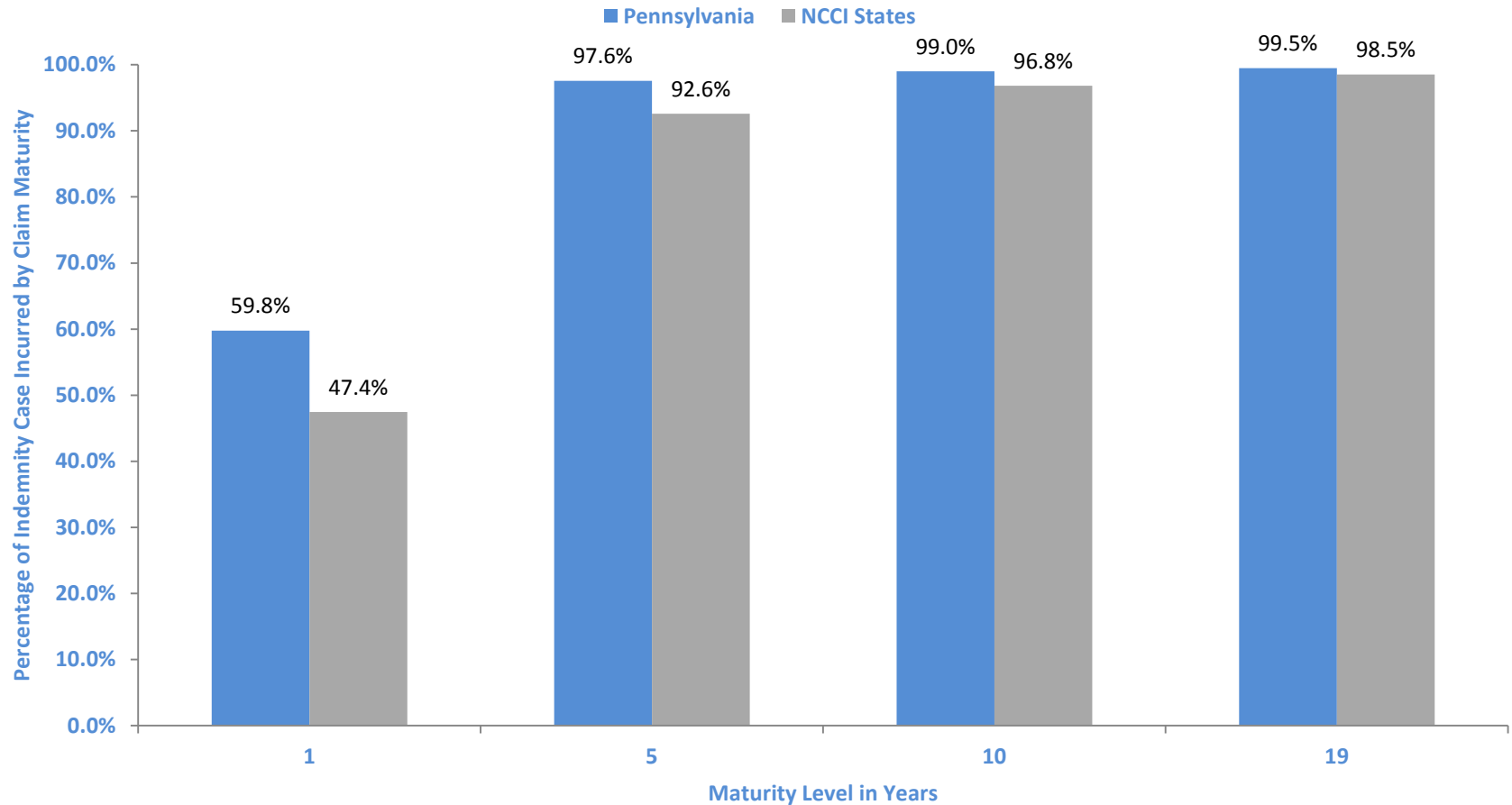


Sources:

PCRB 2018 Loss Cost Revision, on a Policy Year basis

NCCI States: March, 2018, Annual Statistical Bulletin, Interim Exhibits, on an Accident Year basis

# Portion of Ultimate Indemnity Case Incurred by Claim Maturity



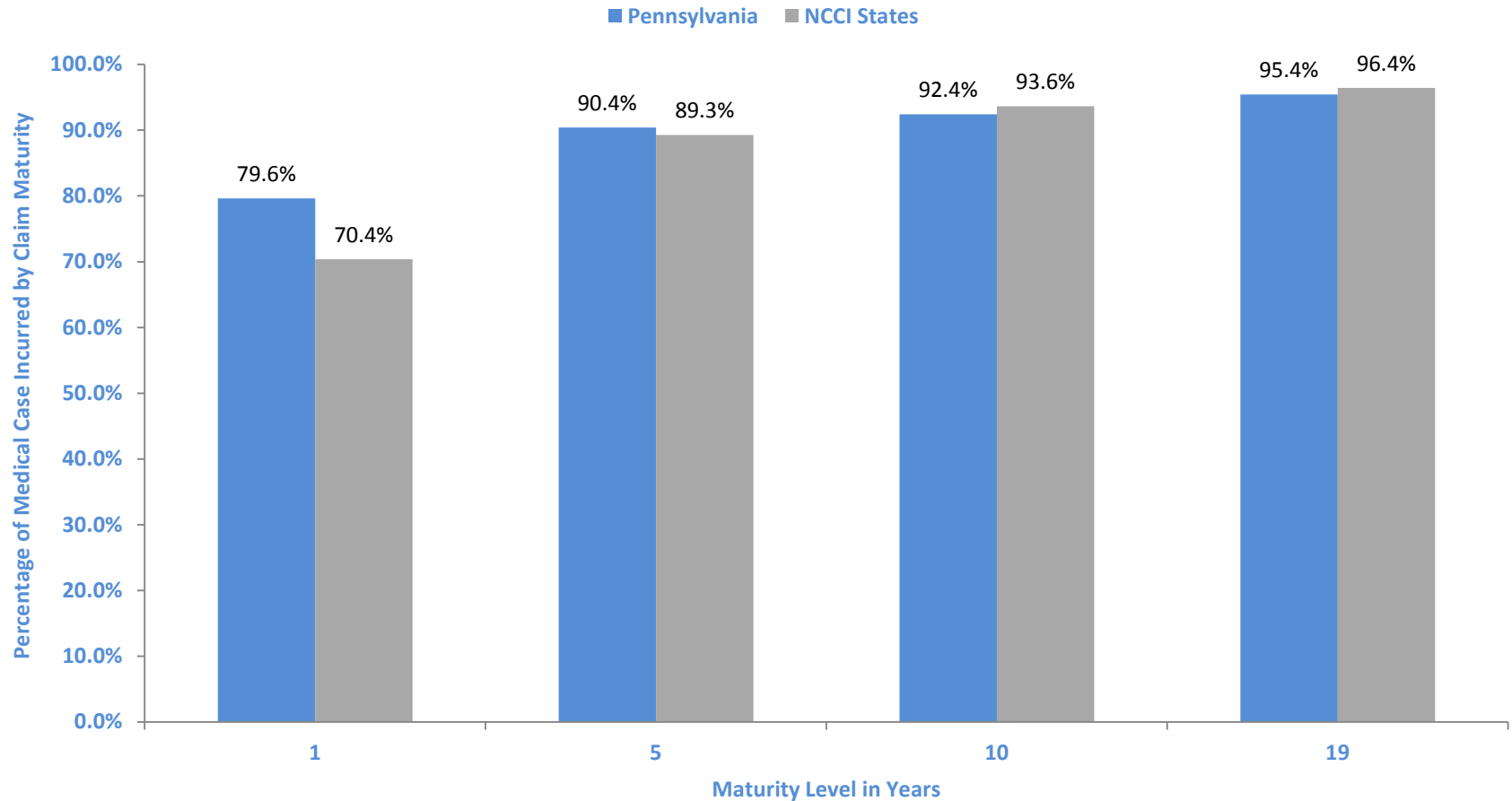
Sources:

PCRB 2018 Loss Cost Revision, on a Policy Year basis

NCCI States: March, 2018, Annual Statistical Bulletin, Interim Exhibits, on an Accident Year basis



# Portion of Ultimate Medical Case Incurred by Claim Maturity



Sources:

PCRB 2018 Loss Cost Revision, on a Policy Year basis

NCCI States: March, 2018, Annual Statistical Bulletin, Interim Exhibits, on an Accident Year basis