



To: **Legislative Service Commission
Chair, Senate Transportation, Commerce and Workforce Committee
Chair, Senate Insurance and Financial Institutions Committee
Chair, House Insurance Committee**

From: **Chan Cochran, Chair, Ohio Bureau of Workers' Compensation (BWC) Board of Directors**

Date: October 30, 2020

Re: **2020 Annual Actuarial Estimate of Unpaid Liabilities – ORC 4121.125**

Attached you will find the report that provides a summary of the 2020 annual actuarial analysis of unpaid liabilities of the state insurance funds and all other funds under Chapters 4121., 4123., 4127., and 4131. of the Revised Code as required under Ohio Revised Code 4121.125.

This executive summary report, prepared for the Board by the firm Oliver Wyman Actuarial Consulting, Inc., provides as required:

- 1) A summary of the funds and components evaluated.
- 2) A description of the actuarial methods and assumptions used in the analysis of the unpaid liabilities.
- 3) A schedule showing the differences in estimates of unpaid liabilities since the previous annual actuarial analysis report.

We note the graphs in Section 8 of the executive report have been removed to shorten the document but are available upon request. Copies of the more detailed reports that cover each of the specific funds and the components of the funds in much more detail are available from the Bureau of Workers' Compensation staff upon request.

Please feel free to contact our BWC staff if you have questions with respect to information contained in this executive summary report.

UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE AS OF JUNE 30, 2020

Ohio Bureau of Workers' Compensation
Using Data as of June 30, 2020

August 14, 2020

Mr. Christopher Carlson, FCAS, MAAA
 Chief Actuarial Officer
 Ohio Bureau of Workers' Compensation
 30 W. Spring Street
 Columbus, Ohio 43215

August 14, 2020

Subject: June 30, 2020 Unpaid Loss and Loss Adjustment Expense Analysis

Dear Mr. Carlson:

Oliver Wyman Actuarial Consulting, Inc. (Oliver Wyman) has completed the actuarial study of the loss and loss adjustment expense (LAE) reserves as of June 30, 2020 for the Ohio Bureau of Workers' Compensation (BWC). The unpaid loss and LAE estimates as of June 30, 2020 are based on actual data as of June 30, 2020 and additional information provided to us through July 20, 2020. This letter and its attachments constitute our report.

The following table summarizes the BWC's projected unpaid liability as of June 30, 2020 using data as of June 30, 2020.

Unpaid Liability	Undiscounted (\$millions)	Discounted 4.0% (\$millions)
State Insurance Fund	18,005.7	11,351.7
Disabled Workers' Relief Fund	3,564.1	1,765.1
Disabled Workers' Relief Fund I	564.1	422.4
Disabled Workers' Relief Fund II	3,000.0	1,342.7
Coal Workers Fund	231.2	93.9
Public Work-Relief Employees' Compensation Fund	2.5	1.5
Marine Industry Fund	1.4	1.0
Self-Insuring Guaranty Fund	686.2	403.3
Administrative Cost Fund	1,534.8	965.6
Total Unpaid Loss and LAE	24,025.9	14,582.2

We estimate the unpaid loss and LAE as of March 31, 2020 to be approximately \$14.6 billion on a discounted basis, assuming an annual interest rate of 4.0%, and \$24.0 billion on an undiscounted basis.

Retrospective Change in March 31, 2020 Estimate of Unpaid Liability

Unpaid Liability Discounted at Annual Rate of 4.0%	3/31/2020	3/31/2020	Difference
	as of 6/30/2020	as of 3/31/2020	
	Estimate	Estimate	(Millions)
	(\$millions)	(\$millions)	
State Insurance Fund	11,301.1	11,449.1	(148.0)
Disabled Workers' Relief Fund	1,765.1	1,766.7	(1.5)
Coal Workers Fund	93.9	93.8	0.1
Public Work-Relief Employees' Compensation Fund	0.6	1.7	(1.1)
Marine Industry Fund	1.1	1.0	0.1
Self-Insuring Guaranty Fund	402.8	395.5	7.3
Administrative Cost Fund	968.1	959.5	8.5
Total Unpaid Loss and LAE	14,532.7	14,667.4	(134.7)

Change in Estimate of Unpaid Liability*

i.	6/30/2020	3/31/2020*	Difference
	as of 6/30/2020	as of 3/31/2020	
	Estimate	Estimate	(Millions)
	(\$millions)	(\$millions)	
State Insurance Fund	11,351.7	11,449.1	(97.4)
Disabled Workers' Relief Fund	1,765.1	1,766.7	(1.5)
Coal Workers Fund	93.9	93.8	0.1
Public Work-Relief Employees' Compensation Fund	1.5	1.7	(0.2)
Marine Industry Fund	1.0	1.0	(0.1)
Self-Insuring Guaranty Fund	403.3	395.5	7.8
Administrative Cost Fund	965.6	959.5	6.1
Total Unpaid Loss and LAE	14,582.2	14,667.4	(85.2)

* Change reflects an additional quarter of claims occurring from 4/1/20 through 6/30/2020.

Ultimate unpaid loss and LAE estimates by accident year are discounted at a 4.0% rate as selected by the BWC. We have not computed an explicit provision for adverse deviation due to timing risk on the discounted unpaid loss and ALAE.

We have provided the BWC with a complete set of exhibits in 'Adobe PDF' electronic format which contain the above summary exhibits in addition to all supporting exhibits. We have provided our analysis in the following separate reports:

- Private Employers - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020
- Public Employers Taxing Districts - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020
- Public Employers State Agencies - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020
- Ancillary Funds - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020
- Coal Workers Pneumoconiosis Fund (CWPF)
- Appendix – Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020

We have relied on the data which the BWC provided to us. If the data is inaccurate or incomplete, our projections may need to be revised.

The estimates in this report were developed in accordance with the principles of the Casualty Actuarial Society and the applicable standards of the Actuarial Standard Board.

The "expected value" estimates presented in this report are intended to represent actuarial central estimates which, consistent with the applicable actuarial standard of practice, we define as the expected value over the range of reasonably possible (as opposed to all conceivable) outcomes. All data is considered to be gross of recoveries for salvage, subrogation, and the net data are net of reinsurance. However, no evaluation has been performed on the collectability of such recovery amounts due to the BWC.

It should be understood that our conclusions are based on the available data and on informed judgment. Insurance liabilities are subject to many inherent uncertainties concerning future events. Macroeconomic events such as unanticipated changes in inflation, judicial decisions, legislation, claim consciousness, claim management, and mass torts may significantly alter the conclusions. Actual results may therefore vary significantly from our estimates.

We have enjoyed working with the BWC on this assignment and look forward to working with you in the future. Please let us know if we can be of further assistance.

Sincerely,



Jeffery J. Scott, FCAS, MAAA



Jeffery W. Scholl, FCAS, MAAA

EXECUTIVE SUMMARY

Purpose and Scope

Oliver Wyman Actuarial Consulting, Inc. (Oliver Wyman) has been retained by the Ohio Bureau of Workers' Compensation (the BWC) to evaluate its unpaid loss and loss adjustment expense (LAE) for all claims occurring through June 30, 2020. The data is evaluated as of June 30, 2020, including additional information provided through July 20, 2020.

The enclosed report provides an independent actuarial analysis by the firm of Oliver Wyman Actuarial Consulting, Inc. of the unpaid loss and LAE of the State Insurance Fund (SIF) and related funds administered by the Ohio Bureau of Workers' Compensation (BWC). The unpaid loss and LAE is an estimate of the future payments for Ohio workers covered by the Funds for injuries sustained on or before June 30, 2020. These future payments have been discounted to their present value as of June 30, 2020 at an assumed annual interest rate of 4.0%.

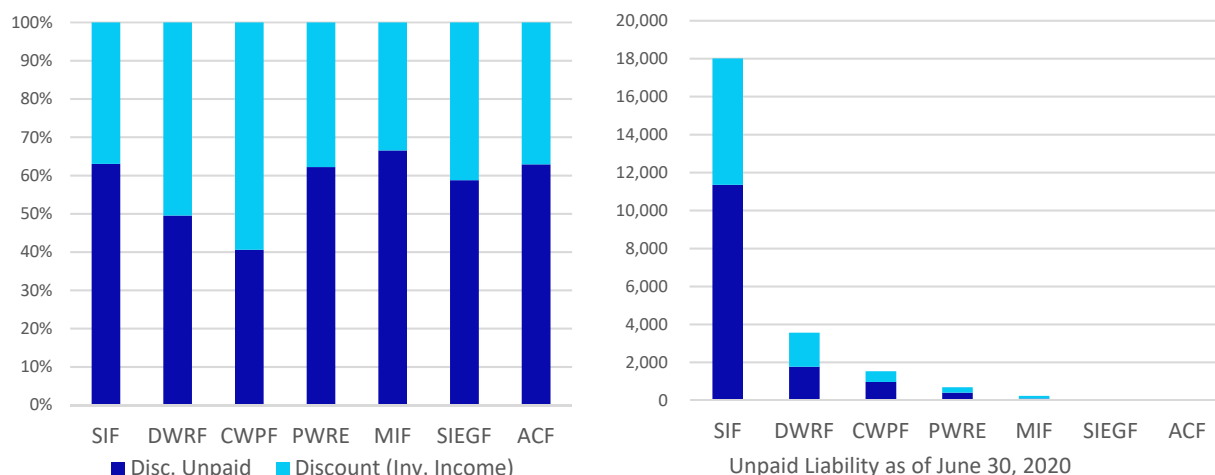
Actuarial Findings

The present value unpaid liability for loss and loss adjustment expenses for all funds as of June 30, 2020 indicated by our analysis is \$14.6 billion, which is \$96.2 million higher than the unpaid liability for all Funds included in the BWC's Financial Statements as of June 30, 2020. The total liabilities, by fund, are shown below:

Estimated June 30, 2020 Unpaid Liability as of June 30, 2020

Unpaid Liability	Undiscounted (\$millions)	Discounted 4.0% (\$millions)
State Insurance Fund	18,005.7	11,351.7
Disabled Workers' Relief Fund	3,564.1	1,765.1
Disabled Workers' Relief Fund I	564.1	422.4
Disabled Workers' Relief Fund II	3,000.0	1,342.7
Coal Workers Fund	231.2	93.9
Public Work-Relief Employees' Compensation Fund	2.5	1.5
Marine Industry Fund	1.4	1.0
Self-Insuring Guaranty Fund	686.2	403.3
Administrative Cost Fund	1,534.8	965.6
Total Unpaid Loss and LAE	24,025.9	14,582.2

The charts below show the relationships of discounted liability and the amount of discount (or future investment income) by Fund.



A comparison to the current June 30, 2020 financial statement balances, by fund, is shown below.

Unpaid Liability Discounted at Annual Rate of 4.0%	Oliver Wyman	BWC 06/30/20	Difference (\$millions)
	Estimate (\$millions)	Balance Sheet (\$millions)	
State Insurance Fund	11,351.7	11,464.7	(113.0)
Disabled Workers' Relief Fund	1,765.1	1,787.6	(22.5)
Coal Workers Fund	93.9	97.4	(3.5)
Public Work-Relief Employees' Compensation Fund	1.5	1.7	(0.2)
Marine Industry Fund	1.0	1.1	(0.1)
Self-Insuring Guaranty Fund	403.3	408.0	(4.7)
Administrative Cost Fund	965.6	917.9	47.7
Total Unpaid Loss and LAE	14,582.2	14,678.4	(96.2)

Relevant Comments

The estimates of unpaid claim liabilities are subject to a high level of uncertainty associated with the claims process, parameter estimates, interest rate selection, and other actuarial modeling assumptions. Therefore, it is probable that the estimated liabilities could be either redundant or insufficient when all of the final costs are determined.

We have included no explicit adjustments for the effect of the COVID-19 pandemic on loss experience except as specifically noted in this report. The impact of this event on loss experience is highly uncertain and generally unquantifiable at this time. For some benefit types, we considered the ultimate loss selections contained in our March 31, 2020 evaluation in the current selections. This was done primarily because our methodologies rely on payments that were lower due to the delay of some medical

treatments due to the closing of medical facilities in Ohio during the latter part of March as well as any other unknown delays resulting from the COVID-19 pandemic.

Similar to the previous analysis, we continued the use of the Weibull loss distribution in calculating the paid loss development factors. In selecting the paid tail factor, we also considered the implied paid tail factor from the incremental paid and paid persistency methods along with the inverse power curve tail and the Weibull tail.

A comparison to the March 31, 2020 analysis can be seen in Summary 6. We provide a re-estimate of the reserves, i.e. what the reserve amount would have been if we use our current estimate of ultimate losses. The total re-estimated SIF discounted reserve amount is currently \$11.3 billion (column (12)), which is \$0.15 billion (-1.3%) less than our previous estimate of \$11.4 billion.

The changes in the current estimated liability (through June 30, 2020) from our analysis as of March 31, 2020 can be seen in Summary 7. In total, the estimated SIF discounted unpaid liability is lower by \$0.1 billion (-0.9%). This difference includes claims that occurred from April 1, 2020 through June 30, 2020.

The largest dollar change in discounted liability is for future Hospital, with a decrease of \$23 million (-2.6%) from our prior quarter estimate. There were no significant dollar increases, but small increases (\$2 million) are noted for Medical Only, Permanent Partial and Living Maintenance.

In this analysis, we include an estimate for the Pharmacy Benefit Manager Program expense. Beginning October 29, 2018, an unpaid expense has been established for the expected payments to the Pharmacy Benefit Manager Program (PBM). This expense is no longer included with the pharmacy benefits and a separate line item is shown on our summary exhibits, similar to HPP.

The BWC began using its former PBM on 11/1/2009. This PBM was reimbursed on a per prescription basis and the fee was previously included in Pharmacy loss data. On 10/29/18, BWC switched PBMs. The current fee schedule is based a monthly amount per claim. This is slightly different than per prescription. The PBM fee is no longer included in the Pharmacy losses and is now included as separate expense item.

In order to recognize this change, we removed the prior PBM benefit from the Pharmacy experience and determined an estimate of the unpaid liability for the Pharmacy benefits excluding the PBM on a going forward basis.

Additionally, we determined the expense liability for the new PBM based on estimates of the actual experience for the last nine years adjusted to the new basis. The calculations for this unpaid expense are provided in Exhibit U.

With this analysis we included recognition of pharmacy rebates that have been made. Historical payments have been shown net of the rebate amounts.

For the year-end June 30, 2020 analysis, we have maintained our long-term future medical trend assumptions used in the calendar year persistency. The trends are as follows (“Prior” refers to the June 2019 analysis):

Annual Medical Severity Trend		
Years	Prior (Jun 19)	Current
2019/20	3.5%	N/A
2020/21	4.0%	3.5%
2021/22	5.0%	4.0%
2022/23	6.0%	5.0%
2023/24	6.5%	6.0%
2024/25+	6.5%	6.5%

From our prior quarter March 31, 2020 estimate, the PA medical liability (discounted) has decreased \$60 million, or -2.3%. The primary component of this decrease is Hospital (-\$20 million, -2.6%), which is due to lower than expected payments in the most recent quarter.

The PA indemnity liability (discounted) has decreased 40 million, or -0.7%. The largest sources of decrease are Permanent Total Disability (-\$23 million, -0.8%) and Lump Sum Settlements (-\$12 million, -1.1%). The decreases are mostly due to lower expected claim counts in the more recent years.

There had been a growing but small number of payments in previous quarters that were without Employer Type. For the quarter ending June 30, 2020, these payments accounted for less than \$4,000 or 0.001% of the total payments for the quarter.

Comparison to Prior Estimates

In the table below, we show a retrospective comparison of Oliver Wyman's estimated March 31, 2020 discounted unpaid liability to the current estimate of discounted unpaid liability at March 31, 2020 (using data through June 30, 2020) Additional detail is in Summary 6.

Unpaid Liability Discounted at Annual Rate of 4.0%	3/31/2020 as of 6/30/2020	3/31/2020 as of 3/31/2020	Difference (\$millions)
	Estimate (\$millions)	Estimate (\$millions)	
State Insurance Fund	11,301.1	11,449.1	(148.0)
Disabled Workers' Relief Fund	1,765.1	1,766.7	(1.5)
Coal Workers Fund	93.9	93.8	0.1
Public Work-Relief Employees' Compensation Fund	0.6	1.7	(1.1)
Marine Industry Fund	1.1	1.0	0.1
Self-Insuring Guaranty Fund	402.8	395.5	7.3
Administrative Cost Fund	968.1	959.5	8.5
Total Unpaid Loss and LAE	14,532.7	14,667.4	(134.7)

The table below shows the Oliver Wyman estimated unpaid liability for June 30, 2020 evaluated using data as of June 30, 2020 and as of March 31, 2020 using data as of March 31, 2020. Additional detail is in Summary 7. This comparison includes claims occurring from October 1, 2019 through June 30, 2020 for the current quarter's estimate.

Unpaid Liability Discounted at Annual Rate of 4.0%	6/30/2020 as of 6/30/2020	3/31/2020* as of 3/31/2020	Difference (\$millions)
	Estimate (\$millions)	Estimate (\$millions)	
State Insurance Fund	11,351.7	11,449.1	(97.4)
Disabled Workers' Relief Fund	1,765.1	1,766.7	(1.5)
Coal Workers Fund	93.9	93.8	0.1
Public Work-Relief Employees' Compensation Fund	1.5	1.7	(0.2)
Marine Industry Fund	1.0	1.0	(0.1)
Self-Insuring Guaranty Fund	403.3	395.5	7.8
Administrative Cost Fund	965.6	959.5	6.1
Total Unpaid Loss and LAE	14,582.2	14,667.4	(85.2)

*Does not include claims occurring 4/1/20 through 6/30/20

1. BACKGROUND

Under the mandates of the Ohio Revised Code, the Ohio workers' compensation system is the largest exclusive state insurance fund system in the United States, with invested assets of approximately \$25 billion and annual insurance premiums and assessments of approximately \$1.3 billion. The Ohio Bureau of Workers' Compensation (BWC) exercises fiduciary authority with respect to the State Insurance Fund (SIF) and related Specialty Funds. These BWC Trust Funds are held for the benefit of the injured workers and employers of Ohio. It is from these trust funds that all claims for both medical and compensation for disability benefits are paid with the exception of self-insured claims.

2. RESULTS

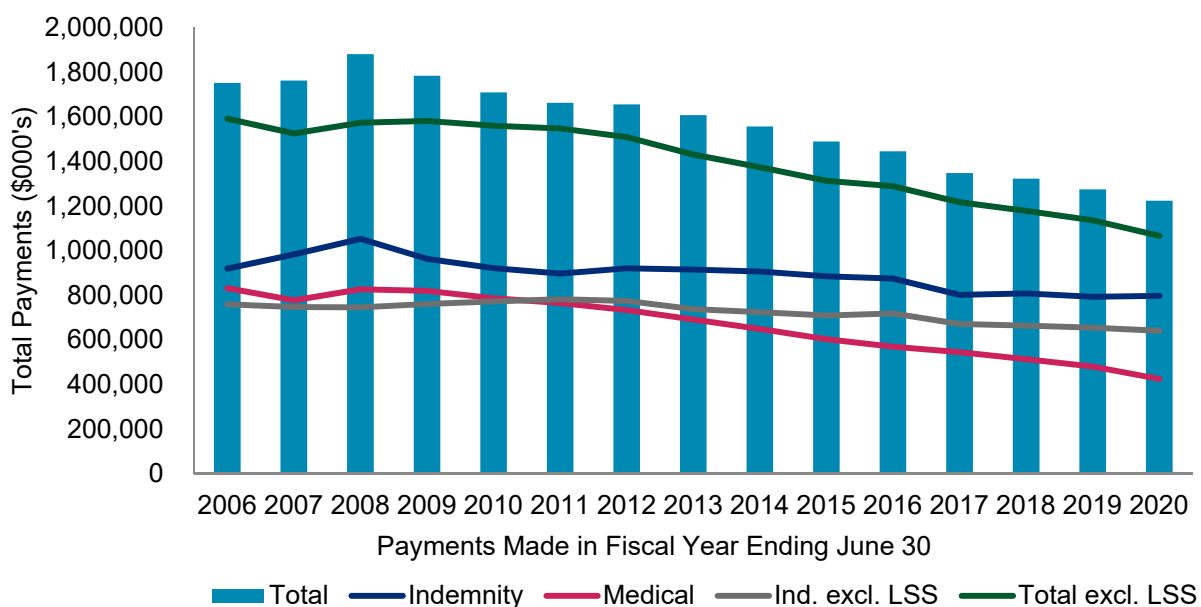
The estimated unpaid loss and LAE as of June 30, 2020 using data as of June 30, 2020 is approximately \$14.6 billion on a discounted basis, assuming an annual interest rate of 4.0%, and \$24.0 billion on a nominal basis. This is an estimate of the liability provision necessary for future payments on insured workers compensation injuries occurring through June 30, 2020 using data as of June 30, 2020. The “expected value” estimates presented in this report are intended to represent actuarial central estimates which, consistent with the applicable actuarial standard of practice, we define as the expected value over the range of reasonably possible (as opposed to all conceivable) outcomes.

No explicit contingency reserve is included within the unpaid loss estimates; nonetheless, we suggest a portion of the Net Position would be available to support the potential adverse variation in loss emergence. Actual costs are expected to vary from the actuarial estimates.

State Insurance Fund Unpaid Liability

The discounted unpaid loss and loss adjustment liability for the State Insurance Fund is \$11.4 billion. The liability is split between indemnity losses of \$7.3 billion (64.1%), medical losses of \$3.2 billion (28.5%), Health Partnership Program expenses (HPP) of \$0.7 billion (6.5%) and Self-Insured defaulted claims prior to 1987 of \$0.1 billion (0.5%). These liabilities represent future payments over a long period of time. Below is a chart of annual fiscal year indemnity and medical payments from 2006 through 2020.

Annual Indemnity and Medical Payments



- Fiscal Year 2020 is actual payments through June 30, 2020.
- Medical payments have been adjusted for Fiscal Years 2010 and subsequent to remove the Pharmacy Benefit Manager fee payments.

During the past 12 years, the annual payments have been on a consistent decline, ranging from a high of \$1.9 billion in 2008 to a low of \$1.2 billion in 2020. The 2020 Fiscal Year actual payments, totaling \$1.2 billion, are \$52 million lower than 2019. These numbers include State Insurance Fund payments only. The biggest rate of decline in recent years has been with the medical payments which is anticipated with the overall decline in new claims.

State Insurance Fund Indemnity (PA, PEC and PES only)

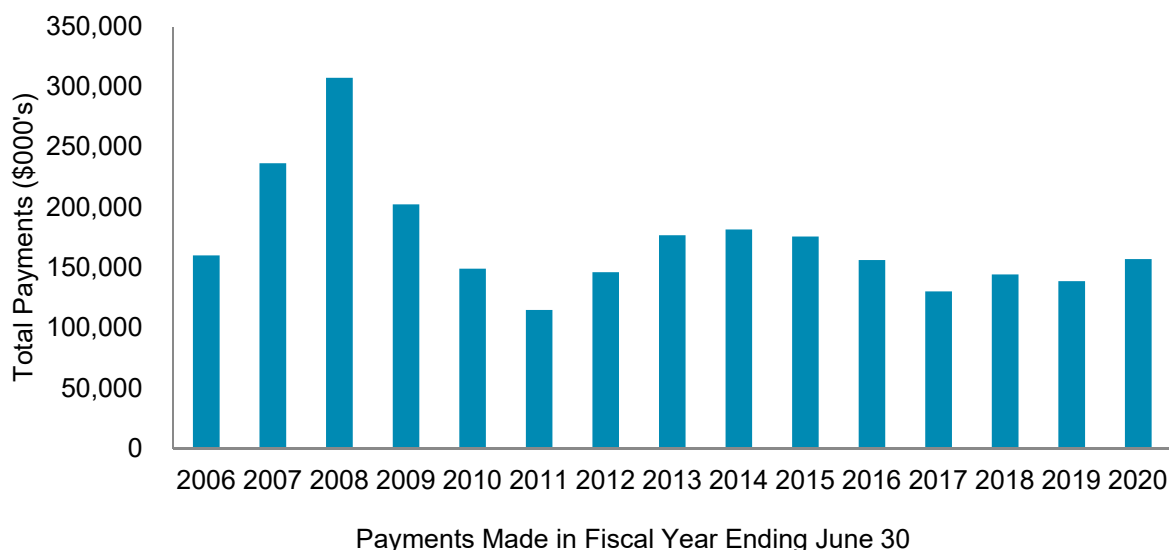
The indicated unpaid indemnity as of June 30, 2020 for the State Insurance Fund is \$7.3 billion on a discounted basis and \$11.2 billion on an undiscounted basis. The discounted values are summarized in Summary 5 by benefit type.

The analysis of the indemnity ultimate losses is performed at the benefit type level, and the selection of ultimate losses varies by injury year.

Permanent Total Disability (PTD) claims are the largest segment of indemnity reserves. The estimated discounted unpaid liability is \$3.7 billion and represents 32.8% of the total State Insurance Fund reserve estimate.

Lump Sum Settlements represent the next largest liability, at \$1.3 billion. Below is a chart that shows the annual payments related to lump sum settlements. As can be seen, payments were elevated in the years 2007- 2009, reaching a peak at \$307 million in 2008. The 2020 Fiscal Year payments are \$157 million, the highest annual amount since 2015.

Lump Sum Settlement Payments



- Fiscal Year 2020 is actual payments through June 30, 2020.

It appears that the decline from 2014 has ended, as we are now seeing subsequent year's payments higher than the 2017 low. The lump sum settlement payments for the most recent years are above

2017. We continue to monitor the lump sum settlement payments as the potential exists for a rapid increase in payments, as can be seen in 2007 and 2008. One should expect that any increase in settlements would result in lower future payments due to the elimination of those claims.

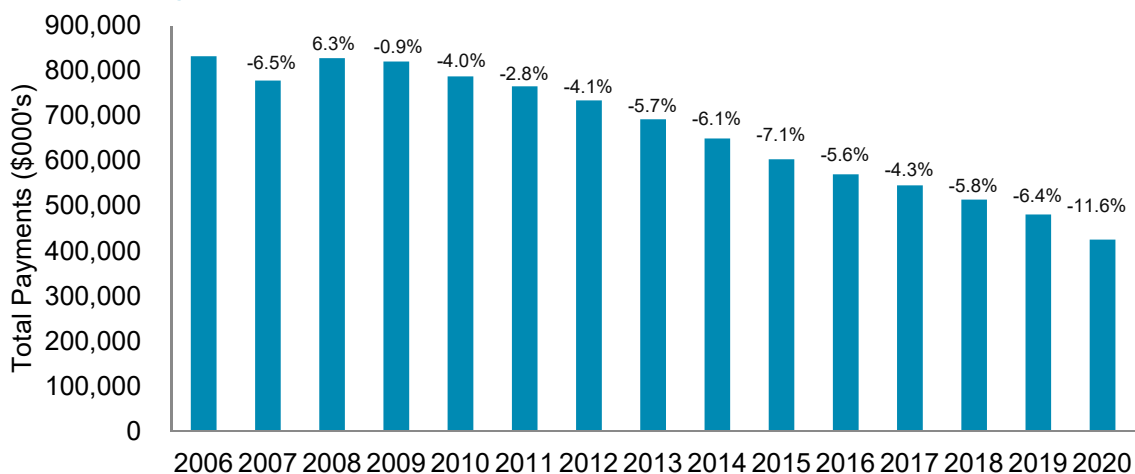
State Insurance Fund Medical (PA, PEC and PES only)

The indicated unpaid medical as of June 30, 2020 is \$3.2 billion on a discounted basis and \$5.5 billion on a nominal basis. The discounted values are summarized in Summary 5.

Unpaid medical payments represent 28.5% of the State Insurance Fund liability. The analysis was performed by provider type. The largest medical related liabilities are for future pharmacy payments (\$0.7 billion) and future hospital payments (\$0.9 billion).

For fiscal year 2020, actual medical payments were \$426 million, which is slightly lower than 2019.

Medical Payments

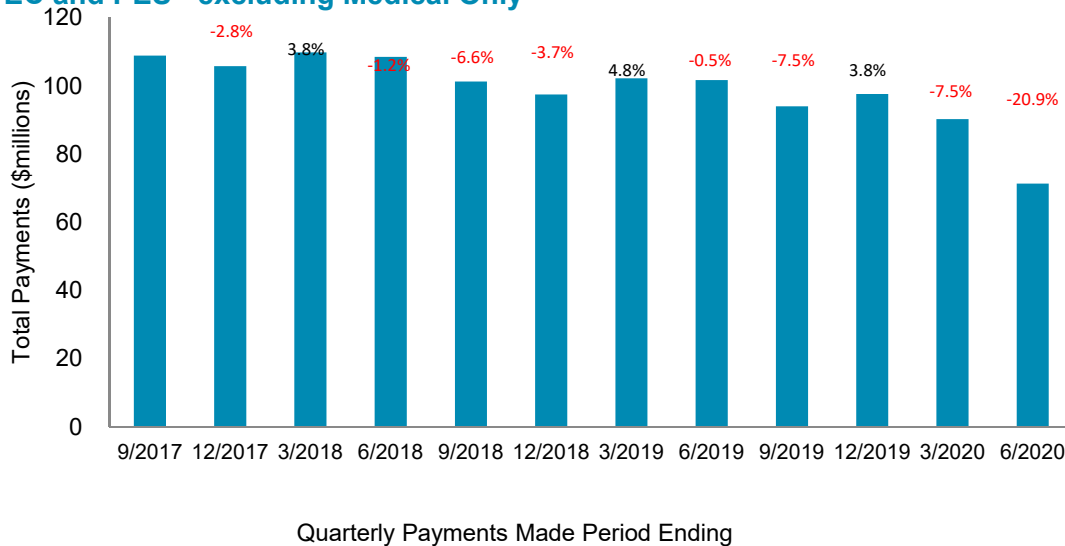


Payments Made in Fiscal Year Ending June 30

- Fiscal Year 2020 is actual payments through June 30, 2020.
- Includes payments on all medical types (hospital, physician, pharmacy, chiropractor, rehabilitation, health other and medical only).
- The percent above each bar represents the percent change from the prior year.
- Medical payments have been adjusted for Fiscal Years 2010 and subsequent to remove the Pharmacy Benefit Manager fee payments.

In the graph below, the most recent quarter of medical payments are lower than prior quarter. The payments be lower partly due to the impact of the COVID-19 pandemic, where access to treatments for “non-essential” medical services was restricted during March.

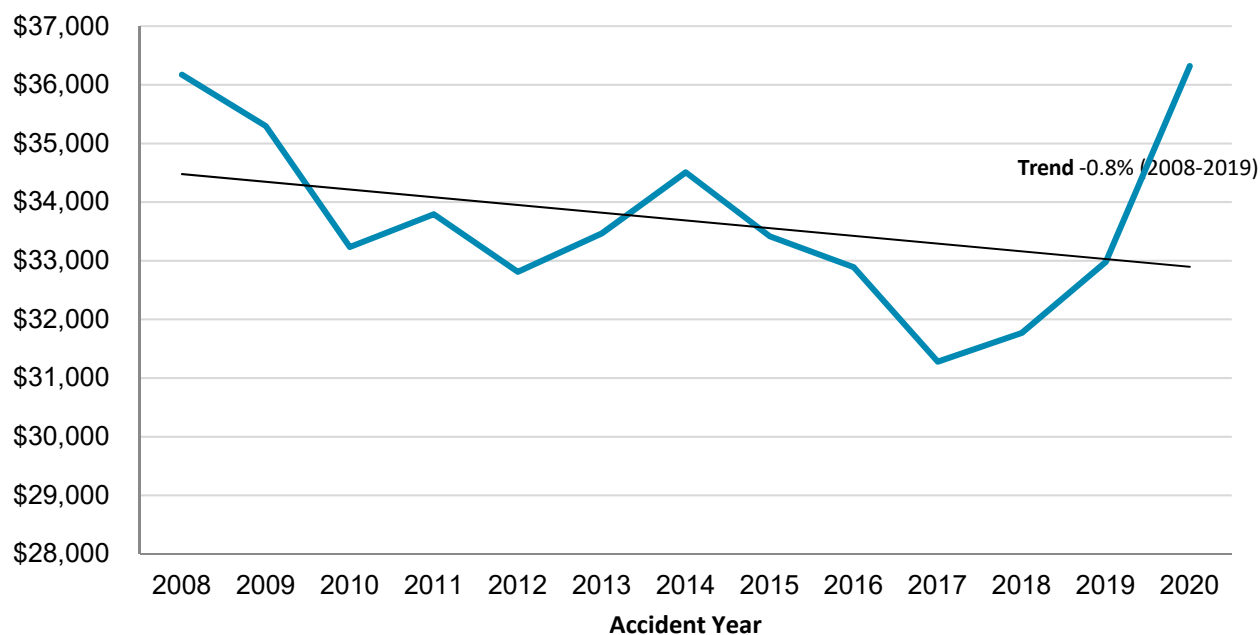
Quarterly Medical Payments PA, PEC and PES - excluding Medical Only



- The percent above each bar represents the percent change from the prior quarter.
- Pharmacy payments have not been adjusted for rebates.
- Medical payments have been adjusted to remove the Pharmacy Benefit Manager fee payments.

Medical is a benefit where the cost of the claim is based on current prices for medical services and is not dependent on the year of injury like indemnity benefits; therefore, the cost of future payments is dependent on future inflation and future utilization rates. Most actuarial methodologies use historical patterns to determine the future, so it is important to recognize that these past patterns reflect past medical inflation, cost containment measures, and utilization rates of medical services. Looking at the average claim costs per lost time claim for private employers, the average annual trend from 2008 through 2019 is -0.8%. These statistics can be seen in the cost trend sections in Exhibit PACT.7. The annual trend from 2008-2014 is -0.9%, whereas the annual trend from 2014-2019 is slightly lower, at -1.2%.

Average Ultimate Medical Cost per Loss Time Claim



Comparison of Unpaid Liability as of June 30, 2020 evaluated as of June 30, 2020 to Unpaid Liability as of March 31, 2020 evaluated as of March 31, 2020

Indicated State Insurance Fund unpaid loss and LAE as of June 30, 2020 is lower than our indicated March 31, 2020 unpaid loss and LAE by approximately \$97.4 million, which is a difference of -0.9%. The change for all Funds from 3/2020 to 06/2020 is a decrease of \$85.2 million, or -0.6%. These changes are shown by Fund in Summary 3.

The changes in State Insurance Fund (excluding HPP) unpaid loss and LAE between March 31, 2020 and June 30, 2020 can be separated into four components:

1. An “expected” addition to unpaid loss and LAE which is the result of the addition of unpaid loss and LAE for another quarter of accidents (April 1, 2020 through June 30, 2020.) This amount is estimated to be \$220 million on a discounted basis.
2. A decrease in unpaid loss and LAE for accidents occurring prior to April 1, 2020, from expected payments being made, \$307 million.
3. Offset by the interest amortization, i.e. one quarter less discount remaining in the liability (\$104 million). The net expected reduction in unpaid loss and LAE for these prior accident years is a decrease of \$203 million.
4. An unexpected change in unpaid loss and LAE due to changes in the base of payments and factors used to establish the unpaid loss and LAE. These changes, which result in a decrease of unpaid loss and LAE of approximately \$113 million, amount to a 1.1% decrease in unpaid loss and LAE.

The three components of State Insurance Fund unpaid loss and LAE changes are summarized in Summary 4. The “expected” change in unpaid loss and LAE amounts to an increase of 0.2%. In addition,

there is also the “unexpected” decrease in the amount of 1.1%. This adds up to a total change in unpaid loss and LAE of a decrease of 0.9%.

Comparison of Unpaid Liability as of June 30, 2020 evaluated as of June 30, 2020 to Unpaid Liability as of March 31, 2020 evaluated as of March 31, 2020

The comparison to our prior quarter evaluation is shown below. For the PA, PEC and PES employers, the total change was a decrease of \$96 million, or -0.9%. Including all funds, the decrease in discounted reserve is \$85 million, or -0.6%.

Unpaid Loss (\$000's) as of 6/30/2020	Evaluation 6/30/2020	Evaluation 3/31/2020	Difference	Percentage
Medical	3,235	3,302	(67)	-2.0%
Indemnity	7,281	7,311	(29)	-0.4%
Total Unpaid Loss	10,516	10,613	(96)	-0.9%

A more detailed summary can be found in Summary 7.

The fourth quarter payments, in total, were lower than our expected estimates (based on June 30, 2019 data) by 12.8%.

4/1/20 to 6/30/2020 Quarterly Payments

(\$000's)	Actual	Oliver Wyman Expected	Difference	Percentage
Medical	84,428	115,129	(30,701)	-26.7%
Indemnity	197,491	208,139	(10,648)	-5.1%
Total Payments	281,919	323,268	(41,349)	-12.8%

3. METHODOLOGY

Loss Estimates

The methods used to estimate the unpaid loss by accident year include paid loss development, incurred loss development, Bornhuetter/Ferguson, persistency and payment projection approaches.

Under the **paid development method**, the historical loss payment pattern is applied directly to the latest cumulative paid losses to estimate the ultimate amount. The advantage to this method is that the estimates of the ultimate loss are independent of case reserve adequacy and are unaffected by changes in the case reserving philosophy. However, the nature of liability payment patterns requires the application of large development factors to relatively small payments in most immature years.

Under the **incurred development method**, the historical loss reporting pattern is applied directly to the latest cumulative reported losses (paid plus case reserves) to estimate ultimate losses. An advantage to this method is that it tends to be responsive to changes in reported losses. It may also provide a more accurate estimate of ultimate losses for less mature years if historical levels of reserve accuracy are maintained. However, it may inaccurately react to a change in the adequacy of case reserves. Therefore, understanding the causes for changes in the underlying claim values is essential when employing this method. This is an area of concern in that the case reserves for BWC are based on MIRA II, which is a formula approach to establishing case reserves.

The **paid development based Bornhuetter/Ferguson (B/F) method** bases the estimation of losses on the earned premium (or payroll) and percent of losses paid to date for an accident year. In this method, a loss ratio (or loss cost) is selected and multiplied by the accident year earned premium (or payroll) to produce an ultimate loss estimate. One estimation method would be to subtract the paid losses from this "initial" estimate to arrive at an estimate of reserves. However, the B/F method refines the estimate by using the payment pattern for a typical accident year. The percentage of paid losses is used as a weight. The percent of unpaid losses (one minus percent paid) is applied to the expected losses and the paid to date losses are added to this amount to obtain an ultimate loss estimate. The advantage of this method is that it is less sensitive than the paid loss development method to the volatility that is present in the paid losses in the early stages of development.

The **incurred based B/F method** is similar to the paid development based B/F method except it uses incurred development for weights to obtain the expected ultimate losses.

We also have two types of persistency methods. Under the **persistency per lost time claim method**, our selections of persistency (development) factors are based on the historical experience of the average paid losses per lost time claim by age of development. The "profile" of persistency factors is calculated within each fiscal year by age of development, rather than using the "traditional" method of calculating year-to-year development factors by accident year. This methodology allows the use of all of the experience available and the calculations are not distorted by significant changes in payments in the past years. Persistency factors have been selected based on the recent history for each of the early development periods, and a constant persistency rate was calculated for the middle development periods based on the historical experience for these years. For persistency beyond approximately the thirtieth period of development, we have used the assumption that persistency will be a constant percentage of the theoretical mortality rate.

In the case of medical benefits, the selected indexed persistency assumptions are multiplied by an annual inflation assumption to derive estimated payments.

“Persistency” refers to the ratio of payments for a particular age of development to payments for the prior age of development. For instance, if temporary total (TT) payments for accident year 2007 were \$100 million in 2009 and \$90 million in 2010, we would calculate a persistency factor of 0.90 for the 2009 accident year for calendar year 2010. Another measurement of persistency could be determined by comparing payments per claim during 2008. For example, if medical payments per claim averaged \$100 per claim in the calendar year for claims that were four years old and \$90 per claim during the same calendar year for claims that were five years old, we could calculate a persistency factor of 0.90 for the fourth vs. fifth year of development based on these relationships within this calendar year. In order to use the second measurement of persistency to project unpaid medical loss, it is necessary to include explicit consideration of the expected future trend in the average cost per claim.

We have considered persistency factors to project the future payments (unpaid loss) for some indemnity benefits. For example the weekly compensation benefits for TT, LM, PTD and death benefits are “fixed” for each claimant at the date of injury or death, and the payments have tended to continue for relatively long periods of time. It is logical to expect the payments for these benefits and the related medical payments to exhibit particular patterns by benefit type which reflect the reporting pattern and the rate at which these claims are eventually closed due to beneficiaries returning to work, transferring to other compensation types, or in the case of death benefits, remarriage or death of the beneficiary.

For medical payments, we have computed persistency factors by type of provider for lost time claims as well as for medical only claims for all provider types combined. Explicit considerations of the effects of inflation on medical costs (as measured by the annual increase in average payment per lost time claim) have also been included in our projections for the calendar year persistency method. The measurement of the increase in average payment per claim includes both the inflationary increase in costs as well as the increase in “utilization” of medical services. Based on the long-term trend in the medical costs per claim, we have selected an annual trend beginning with 3.5% and increasing annually to a long-term trend of 6.5% for our projections of future medical payments after June 30, 2020 for all provider types. Our trend assumption is based on long term national and BWC workers’ compensation trends. These trends are higher than the most recent trends observed in the Ohio BWC data. The other methods of loss development include an implicit inflation assumption that is a reflection of the actual past inflation.

We use a smoothing technique for the middle (for example 6 - 25) development years. The smoothing develops a constant persistency during this time period. It is equal to the overall decay using each of the period’s average persistency. This allows for incorporation of the overall average of all persistency factors during these periods as well as to provide a stable decline from period to period. We have further broken this down into two ten-year segments, so that we can have persistency factors that are more likely to reflect the actual development periods while giving us enough data points to calculate an average factor.

We also use a **persistency incremental paid** method. In this method, we compare incremental payments within an accident year. This method will reflect the historical development trends, including all past inflation. The main difference in this method and the prior persistency method, is that the actual payments are used in the calculation. No adjustment is needed as they relate to the same group of claims in the accident year. Therefore, no inflation adjustment is needed, as the past inflation is reflected in the development factors.

For permanent total disability (PTD) and “Other Compensation” (Percent Permanent Partial (%PP), Permanent Partial (PP), Temporary Partial (TP), Wage Loss (WL), Living Maintenance/Wage Loss (LM/WL), Lump Sum Settlements (LSS), Lump Sum Advancements (LSA) and Additional Awards (AA)), our methodology uses historical relationships of “weeks of benefits” by development year. These are calculated using payments, numbers of ultimate lost time claims (ultimate number of PTD claims for PTD and LSA), and the average benefit level for each accident year.

An additional clarification is required regarding the terminology used for persistency factors calculated using the fiscal year data. In the Appendix, we have used the terminology “calendar year” persistencies to describe the persistencies calculated using the relationships between development years within a fiscal year to distinguish these calculations from the traditional calculations of year-to-year development by accident year.

We have separated medical payments for claims with compensation and medical only claims. Due to the significant changes in claims procedures, fee schedules, etc., which may affect the medical payments on lost time claims differently than medical only claims, we believe that more accurate estimates can be obtained by separating the medical only claims from the lost time claim payments.

For injury years prior to 1985, for medical, permanent total disability and death benefits, the latest fiscal year payments are multiplied by an annuity factor based on mortality assumptions that are derived based on a uniform distribution of injured workers ages 18 – 65 at time of injury.

For other indemnity payments on injury years prior to 1986, a four-year average of the incremental fiscal year payments are multiplied by a factor based on the relationship of the oldest two years historical four-year average of unpaid loss to incremental payments.

4. DISTRIBUTION AND USE

Usage and Responsibility of Client – Oliver Wyman prepared this report for the sole use of the BWC for the stated purpose. This report includes important considerations, assumptions, and limitations and, as a result, is intended to be read and used only as a whole. This report may not be separated into, or distributed, in parts other than by the client to whom this report was issued, as needed, in the case of distribution to such client’s directors, officers, or employees. All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the BWC.

Third Party Reliance and Due Diligence – Oliver Wyman’s consent to any distribution of this report (whether herein or in the written agreement pursuant to which we issued this report) to parties other than the BWC does not constitute advice by Oliver Wyman to any such third parties. Any distribution to third parties shall be solely for informational purposes and not for purposes of reliance by any such parties. Oliver Wyman assumes no liability related to third party use of this report or any actions taken or decisions made as a consequence of the results, advice or recommendations set forth herein. This report should not replace the due diligence on behalf of any such third party.

5. CONSIDERATIONS AND LIMITATIONS

COVID-19 Pandemic We have included no explicit adjustments in this report for the effect of the COVID-19 pandemic on loss experience except as specifically noted in this report. The impact of this event on loss experience is highly uncertain and generally unquantifiable at this time.

Data Verification – For our analysis, we relied on data and information provided by the BWC without independent audit. Though we have reviewed the data for reasonableness and consistency, we have not audited or otherwise verified this data. Our review of data may not always reveal imperfections. We have assumed that the data provided is both accurate and complete. The results of our analysis are dependent on this assumption. If this data or information is inaccurate or incomplete, our findings and conclusions might therefore be unreliable.

Prospective Policy / Accident Period Estimates – We estimated the prospective policy/accident period estimates developed in this analysis using estimated loss costs and the projected exposures. Prospective period loss and ALAE estimates are directly related to the projected exposures. Therefore, if actual exposures differ from the projection, we would need to adjust the prospective policy/accident period estimates accordingly.

Supplemental Data – Where historical data of the BWC was either (i) not available, (ii) not appropriate or (iii) not sufficiently credible to develop our actuarial assumptions, we supplemented it with external information, as we deemed appropriate. Although we believe these external sources may be more predictive of future experience of the BWC than any other data of which we are aware, the use of external data adds to the uncertainty associated with our projections.

Exclusion of Other Program Costs – The scope of the project does not include the estimation of any costs other than those described herein. Such ancillary costs may include unallocated loss adjustment expenses (ULAE); excess insurance premiums; the costs of trustee, legal, administrative, risk management and actuarial services; fees and assessments; and costs for surety bonds or letters of credit pertaining to claim liabilities.

Assumption of Valid Insurance / Reinsurance – We assumed that all excess insurance/reinsurance is valid and fully collectible. We made no assessment, and do not express any opinion, concerning the collectability of any excess insurance or reinsurance. We have not evaluated the financial strength, claims-paying ability or any other factors with regard to the past, current, and prospective excess insurers/reinsurers of the BWC.

Discounting – Discounted estimates are subject to additional uncertainty that results from the following:

- In addition to the risk of underestimating or overestimating the overall amount of the nominal unpaid loss and ALAE, there is the additional risk that the timing of the future payments will differ from the expected payout.
- There is the risk the actual future yield on the underlying assets (if any) will differ from the assumed yield rate used for determining present value factors.

We have not included any specific provision for this additional risk.

The BWC provided the interest rate(s) used in this analysis. An assessment of the reasonableness of the interest rate assumption(s) is beyond the scope of our analysis. As a result, we express no opinion on the appropriateness of the interest rate(s) used in the discounting calculation.

Funding of Claim Payments – We have not examined any assets that may be supporting the liabilities, and have made no assumptions regarding the maturities and liquidity of these assets, should they exist. This examination is beyond the scope of our review.

Rounding and Accuracy – Our models may retain more digits than those displayed. Also, the results of certain calculations may be presented in the exhibits with more or fewer digits than would be considered significant. As a result, there may be rounding differences between the results of calculations presented in the exhibits and replications of those calculations based on displayed underlying amounts. Also, calculation results may not have been adjusted to reflect the precision of the calculation.

Unanticipated Changes – We developed our conclusions based on an analysis of the data of the BWC and on the estimation of the outcome of many contingent events. We developed our estimates from the historical claim experience and covered exposure, with adjustments for anticipated changes. Our estimates make no provision for extraordinary future emergence of new types of losses not sufficiently represented in historical databases or which are not yet quantifiable. Also, we assumed that the BWC will remain a going concern, and we have not anticipated any impacts of potential insolvency, bankruptcy, or any similar event.

Internal / External Changes – The sources of uncertainty affecting our estimates are numerous and include factors internal and external to the BWC. Internal factors include items such as changes in claim reserving or settlement practices. The most significant external influences include, but are not limited to, changes in the legal, social, or regulatory environment surrounding the claims process. Uncontrollable factors such as general economic conditions also contribute to the variability.

Uncertainty Inherent in Projections – While this analysis complies with applicable Actuarial Standards of Practice [and Statements of Principles], users of this analysis should recognize that our projections involve estimates of future events and are subject to economic and statistical variations from expected values. We have not anticipated any extraordinary changes to the legal, social, or economic environment that might affect the frequency or severity of claims. For these reasons, we do not guarantee that the emergence of actual losses will correspond to the projections in this analysis.

Probability Levels – We have calculated estimates of the statistical uncertainty associated with the process risk inherent in our estimates. However, unless otherwise indicated, our probability level estimates do not address parameter or model risk. To the extent that the probability estimates do not address parameter risk or model risk, the true variability of results is greater than the range of outcomes presented. The BWC may wish to consider this additional uncertainty in evaluating the estimates presented in this report.

6. SUMMARY EXHIBITS

OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE
As of 6/30/2020 (Using data as of 6/30/2020)
(SMillions)

Indicated Discounted Unpaid Loss and LAE and Fund Balance

		(1)	(2)	(3)	(4)	(5)
		Indicated Unpaid Loss 6/30/2020	Indicated Unpaid HPP 6/30/2020	Indicated Unpaid PBM 6/30/2020	Indicated Unpaid ACF 6/30/2020	Indicated Unpaid Fund Total 6/30/2020
A	State Insurance Fund (SIF)	10,573.8	742.4	35.4	936.8	11,351.7
A.1	Private Employers (PA)	8,387.3	590.4	28.3	743.1	9,005.9
A.2	Public Employers-Taxing Districts (PEC)	1,670.5	123.7	5.5	148.0	1,799.8
A.3	Public Employers-State Agencies (PES)	458.6	28.3	1.7	40.6	488.7
A.4	Self Insured (Defaulted)	57.3			5.1	57.3
B	Self-Insuring Employers Guaranty Fund (SIEGF)	397.6	5.8		28.7	403.3
C	Coal-Workers Pneumoconiosis Fund (CWPF)	86.2			7.6	93.9
D	Public Work-Relief Employees' Compensation Fund (PWREF)	1.5			0.1	1.5
E	Marine Industry Fund (MIF)	0.9			0.1	1.0
F	Disabled Workers' Relief Fund (DWRF)	1,763.7			1.4	1,765.1
F.1	Disabled Workers' Relief Fund (DWRF I)	422.1			0.3	422.4
F.2	Disabled Workers' Relief Fund (DWRF II)	1,341.7			1.1	1,342.7
G	Administrative Cost Fund (ACF) Loss Adjustment Expense Reserve (LAE)				965.6	965.6
H	Total Unpaid Loss and LAE					14,582.2

Row and Column Notes

- A.1 (1) Summary 6, Row (A.8), Column (1) + Summary 6, Row (A.18), Column (1).
A.2 (1) Summary 6, Row (A.8), Column (2) + Summary 6, Row (A.18), Column (2).
A.3 (1) Summary 6, Row (A.8), Column (3) + Summary 6, Row (A.18), Column (3).
A.4 (1) Summary 6, Row (A.19), Column (4).
A.1 (2) From Exhibit T.1, Row (F) (PA).
A.2 (2) From Exhibit T.1, Row (F) (PEC).
A.3 (2) From Exhibit T.1, Row (F) (PES).
A.1 (3) From Exhibit U-PA.1, Column (8).
A.2 (3) From Exhibit U-PEC.1, Column (8).
A.3 (3) From Exhibit U-PES.1, Column (8).
A (4) Row (A), Column (1) x Exhibit M, Row (E), Column (3).
A (5) Row (A), Column (1) + Row (A), Column (2) + Row (A), Column (3).
B (1) From Exhibit N.2, Column (8) + Exhibit N.12, Column (3).
B (2) From Exhibit T.2, Row (C) + Exhibit T.2, Row (D).
B (4) From Exhibit M, Row (F.2), Column (3) + Exhibit M, Row (F.8), Column (2).
B (5) Row (B), Column (1) + Row (B), Column (2).
C (1) From Coal Report as of 6/30/19.
C (4) Row (C), Column (1) x Exhibit M, Row (E), Column (3).
C (5) Row (C), Column (1) + Row (C), Column (4).
D (1) From Exhibit P.1, Column (7).
D (4) Row (D), Column (1) x Exhibit M, Row (E), Column (3).
D (5) Row (D), Column (1).
E (1) From Exhibit Q.1, Column (5).
E (4) Row (E), Column (1) x Exhibit M, Row (E), Column (3).
E (5) Row (E), Column (1) + Row (E), Column (4).
F (1) From Exhibit R.1.
F (4) Row (F), Column (1) x Exhibit M, Row (E), Column (2).
F (5) Row (F), Column (1) + Row (F), Column (4).
G (4) Row (A), Column (4) + Row (B), Column (4) + Row (D), Column (4).
H (5) Row (A) + Row (B) + Row (C) + Row (D) + Row (E) + Row (F) + Row (G).
SIF includes unpaid HPP expense.

All figures are shown rounded to nearest million and may not add to totals for this reason.

Total unpaid includes estimates for compensation and compensation adjustment expense.

Unpaid DWRF amounts are offset by premium receivable.

Annual Discount Rate = 4.0%

OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE
As of 6/30/2020 (Using data as of 6/30/2020)
(SMillions)

Summary of Undiscounted and Discounted Unpaid Loss and LAE by Fund

	(1) Undiscounted Unpaid <u>6/30/2020</u>	(2) Discounted Unpaid <u>6/30/2020</u>	(3) Discount <u>(1) - (2)</u>
A.1 State Insurance Fund (SIF) (excluding HPP)	16,828	10,574	6,254
A.2 Health Partnership Program	1,177	742	435
A.3 Pharmacy Benefit Manager Program	<u>58</u>	<u>35</u>	<u>23</u>
A State Insurance Fund (SIF)	18,006	11,352	6,654
B Self-Insuring Employers Guaranty Fund (SIEGF)	686	403	283
C Coal-Workers Pneumoconiosis Fund (CWPF)	231	94	137
D Public Work-Relief Employees' Compensation Fund (PWREF)	2	2	1
E Marine Industry Fund (MIF)	1	1	0
F Disabled Workers' Relief Fund (DWRF)	3,564	1,765	1,799
G Administrative Cost Fund (ACF) Loss Adjustment Expense Reserve (LAE)	<u>1,535</u>	<u>966</u>	<u>569</u>
H Total Unpaid Loss and LAE	24,026	14,582	9,444

Row Notes

- A (1) Summation of the undiscounted unpaid loss on Page 1 of the respective employer type and category's analysis.
B (1) From Exhibit N.2, Column (6) + Exhibit N.12, Column (3) + Exhibit T.2, Rows (A) and (C) (adjusted to remove discount).
C (1) From Coal Report as of 6/30/19.
D (1) From Exhibit P.1, Column (12).
E (1) From Exhibit Q.1, Column (8).
F (1) From Exhibit R.1.
G (1) [Row (A), Column (1)] / Row (A), Column (2)] x [Row (G), Column (2)].
A (2) Summary 3, Row (A), Column (1).
B (2) Summary 3, Row (B), Column (1).
C (2) Summary 3, Row (C), Column (1).
D (2) From Exhibit P.1, Column (7).
E (2) From Exhibit Q.1, Column (5).
F (2) Summary 3, Row (F), Column (1).
G (2) Summary 3, Row (G), Column (1).

All figures are shown rounded to nearest million and may not add to totals for this reason.

Total unpaid includes estimates for compensation and compensation adjustment expense.

Unpaid DWRF amounts are offset by premium receivable.

6/30/2020 unpaid loss and LAE are discounted at 4.00% annual interest rate.

OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE
As of 6/30/2020 (Using data as of 6/30/2020)
(\$Millions)

Comparison of Current Indicated and Prior Indicated Discounted Unpaid Loss and LAE

	(1)	(2)	(3)	(4)
	Estimated Discounted Unpaid as of <u>6/30/2020</u>	Estimated Discounted Unpaid as of <u>3/31/2020</u>	Change <u>(1) - (2)</u>	% Change <u>(3) / (2)</u>
A.1 State Insurance Fund (SIF) (excluding HPP)	10,574	10,670	(97)	-0.9%
A.2 Health Partnership Program	742	743	(0)	-0.1%
A.3 Pharmacy Benefit Manager Program	<u>35</u>	<u>36</u>	<u>(0)</u>	
A State Insurance Fund (SIF)	11,352	11,449	(97)	-0.9%
B Self-Insuring Employers Guaranty Fund (SIEGF)	403	396	8	2.0%
C Coal-Workers Pneumoconiosis Fund (CWPF)	94	94	0	0.1%
D Public Work-Relief Employees' Compensation Fund (PWREF)	2	2	(0)	-9.5%
E Marine Industry Fund (MIF)	1	1	(0)	-8.7%
F Disabled Workers' Relief Fund (DWRF)	1,765	1,767	(2)	-0.1%
G Administrative Cost Fund (ACF)	<u>966</u>	<u>960</u>	<u>6</u>	<u>0.6%</u>
Loss Adjustment Expense Reserve (LAE)				
H Total Unpaid Loss and LAE	14,582	14,667	(85)	-0.6%

Row Notes

- A (1) Summary 6, Row (A.22), Column (4).
B (1) Summary 6, Row (B.1), Column (4).
C (1) Summary 6, Row (B.2), Column (4).
D (1) Summary 6, Row (B.3), Column (4).
E (1) Summary 6, Row (B.4), Column (4).
F (1) Summary 6, Row (B.5), Column (4).
G (1) Summary 6, Row (B.6), Column (4).
A (2) Summary 6, Row (A.22), Column (8).
B (2) Summary 6, Row (B.1), Column (8).
C (2) Summary 6, Row (B.2), Column (8).
D (2) Summary 6, Row (B.3), Column (8).
E (2) Summary 6, Row (B.4), Column (8).
F (2) Summary 6, Row (B.5), Column (8).
G (2) Summary 6, Row (B.6), Column (8).

All figures are shown rounded to nearest million and may not add to totals for this reason.
SIF includes HPP.

Total unpaid includes estimates for compensation and compensation adjustment expense.
Unpaid DWRF amounts are offset by premium receivable.

6/30/2020 unpaid loss and LAE are discounted at 4.00% annual interest rate.

OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE
As of 6/30/2020 (Using data as of 6/30/2020)
(\$Millions)
Summary of SIF Discounted Unpaid Loss Changes

	(1)	(2)	(3)	(4)	
	Fiscal Years Prior to <u>20/21</u>	Fiscal Year <u>20/21</u>	<u>Totals</u>	% Change <u>(3) / (A1)</u>	
A	Estimated Unpaid Loss @ 3/31/2020	10,670			
B	Expected Payments in Fiscal Quarter 21	307			
C	Expected Payments discounted to 3/31/2020	305			
D	Interest Amortization	104			
E	Expected Unpaid Loss 6/30/2020	10,467	220	10,687	
F	Expected Change in Unpaid Loss	(203)	220	16	0.2%
G	Unexpected Change in Unpaid Loss	(113)		(113)	-1.1%
H	Estimated Unpaid Loss @ 6/30/2020	10,354	220	10,574	-0.9%

* Excludes HPP, PBM and Self-Insured.

Row Notes

A	From Exhibit V.1.
B	From Exhibit V.1.
C	Row (B1) + Row (F1).
D	Row (E) - Row (A) + Row (B)
E (1)	[Row (A) - Row (C)] x 1.04 ^{0.25} .
E (2)	Row (H3) - Row (H1).
E (3)	Row (E1) + Row (E2).
F (1)	Row (E1) - Row (A1).
F (2)	Row (E2).
F (3)	Row (F1) + Row (F2).
G (1)	Row (H1) - Row (E1).
G (3)	Row (G1) + Row (G2).
H (1)	From Exhibit V.1, Column (1).
H (2)	Row (H3) - Row (H1).
H (3)	Summary 6, Row (A.22), Column (4) - Summary 6, Row (A.20), Column (4) - Summary 6, Row (A.21), Column (4).

All figures are shown rounded to nearest million and may not add to totals for this reason.

6/30/2020 unpaid loss and LAE are discounted at 4.00% annual interest rate. 3/31/2020 unpaid loss and LAE are discounted at 4.00%.

OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE
As of 6/30/2020 (Using data as of 6/30/2020)
(\$Millions)

Comparison of Indicated Discounted Unpaid Loss to 3/31/2020 By Benefit and Employer Type

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	6/30/2020	3/31/2020	3/31/2020					
	6/30/20 Eval	3/31/20 Eval.	6/30/20 Eval	Difference	Difference	% Change	% Change	
	Indicated	Indicated	Re-estimate	6/30/2020 vs	3/31/2020 vs	6/30/2020 vs	6/30/2020 vs	
	<u>Unpaid Loss</u>	<u>Unpaid Loss</u>	<u>Unpaid Loss</u>	<u>3/31/2020</u>	<u>Re-estimate</u>	<u>3/31/2020</u>	<u>Re-estimate</u>	
By Benefit Type								
A	State Insurance Fund (SIF)							
A.1	Hospital	872	895	858	(23)	(36)	-2.6%	-4.1%
A.2	Physician	691	710	682	(18)	(27)	-2.6%	-3.9%
A.3	Pharmacy	742	755	736	(13)	(19)	-1.7%	-2.5%
A.4	Chiropractor	109	113	108	(4)	(5)	-3.2%	-4.4%
A.5	Rehabilitation	257	262	252	(4)	(10)	-1.7%	-3.7%
A.6	Health Other	528	534	525	(7)	(10)	-1.2%	-1.8%
A.7	Medical Only	<u>36</u>	<u>34</u>	<u>31</u>	<u>2</u>	<u>(3)</u>	<u>5.8%</u>	<u>-8.4%</u>
A.8	Sub-Total Medical	3,235	3,302	3,193	(67)	(110)	-2.0%	-3.3%
A.9	Temporary Total	611	615	612	(4)	(3)	-0.6%	-0.5%
A.10	Permanent Total Disability	3,721	3,736	3,723	(16)	(13)	-0.4%	-0.4%
A.11	Death	967	969	968	(2)	(1)	-0.2%	-0.1%
A.12	% Permanent Partial	230	231	226	(1)	(5)	-0.3%	-2.2%
A.13	Permanent Partial	86	84	84	2	(0)	2.0%	-0.4%
A.14	Wage Loss and Temporary Partial	103	102	102	1	(0)	0.9%	-0.3%
A.15	Lump Sum Settlements	1,278	1,288	1,274	(11)	(15)	-0.8%	-1.1%
A.16	Living Maintenance	59	57	59	2	2	3.2%	2.9%
A.17	Lump Sum Advancements	203	205	202	(2)	(3)	-0.8%	-1.3%
A.17	Additional Awards	<u>23</u>	<u>23</u>	<u>23</u>	<u>0</u>	<u>0</u>	<u>0.0%</u>	<u>0.5%</u>
A.18	Sub-Total Indemnity	7,281	7,311	7,272	(29)	(39)	-0.4%	-0.5%
A.19	Self Insured	<u>57</u>	<u>58</u>	<u>58</u>	<u>(0)</u>	<u>0</u>	<u>-0.3%</u>	<u>0.4%</u>
A.20	Total SIF Unpaid Loss (Excluding HPP)	10,574	10,670	10,522	(97)	(148)	-0.9%	-1.4%
A.20	Health Partnership Program	742	743	743	(0)	0	-0.1%	0.0%
A.21	Pharmacy Benefit Manager Program	<u>35</u>	<u>36</u>	<u>36</u>	<u>(0)</u>	<u>0</u>	<u>-1.0%</u>	<u>0.0%</u>
A.22	Total SIF Unpaid Loss	11,352	11,449	11,301	(97)	(148)	-0.9%	-1.3%
By Employer Type								
B	State Insurance Fund (SIF)							
B.1	Private Employers (PA)	8,387	8,488	8,364	(100)	(124)	-1.2%	-1.5%
B.2	Public Employers-Taxing Districts (PEC)	1,671	1,669	1,649	1	(20)	0.1%	-1.2%
B.3	Public Employers-State Agencies (PES)	459	456	452	2	(4)	0.5%	-0.9%
B.4	Self Insured (Defaulted)	57	58	58	(0)	0	-0.3%	0.4%
B.5	Health Partnership Program	742	743	743	(0)	0	-0.1%	0.0%
B.6	Pharmacy Benefit Manager Program	<u>35</u>	<u>36</u>	<u>36</u>	<u>(0)</u>	<u>0</u>	<u>-1.0%</u>	<u>0.0%</u>
B.7	Total SIF Unpaid Loss	11,352	11,449	11,301	(97)	(148)	-0.9%	-1.3%

Column Notes

- (1) From Summary 6, Column (1) through Column (3); using 6/30/2020 data.
- (2) From Summary 6, Column (5) through Column (7); using 3/31/2020 data.
- (3) From Summary 6, Column (9) through Column (11); using 6/30/2020 data.
- (4) Column (1) - Column (2).
- (5) Column (3) - Column (2).
- (6) Column (1) / Column (2) - 1.00.
- (7) Column (3) / Column (2) - 1.00.

All figures are shown rounded to nearest million and may not add to totals for this reason.

Indicated Unpaid Loss' are those indicated by actuarial analyses as of 6/30/2020 and 3/31/2020.

Retrospective Unpaid Loss' as of 3/31/2020 represent the re-stated unpaid loss required as of 3/31/2020, using developments as of 6/30/2020.

6/30/2020 unpaid loss and LAE are discounted at 4.00% annual interest rate. 3/31/2020 unpaid loss and LAE are discounted at 4.00%.

**OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE**

As of 6/30/2020 (Using data as of 6/30/2020)

(\$Millions)

Comparison of Indicated Discounted Unpaid Loss and LAE

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		6/30/2020	6/30/2020	6/30/2020	6/30/2020	3/31/2020	3/31/2020	3/31/2020	3/31/2020	3/31/2020	3/31/2020	3/31/2020	3/31/2020
		6/30/20 Eval	6/30/20 Eval	6/30/20 Eval	6/30/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval
		Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Re-estimate	Re-estimate	Re-estimate	Re-estimate
		PA	PEC	PES	Total	PA	PEC	PES	Total	PA	PEC	PES	Total
A	State Insurance Fund (SIF)												
A.1	Hospital	677	164	32	872	697	164	33	895	668	159	31	858
A.2	Physician	533	126	33	691	548	128	33	710	527	123	32	682
A.3	Pharmacy	607	104	31	742	618	105	32	755	603	103	30	736
A.4	Chiropractor	80	26	3	109	83	26	4	113	80	25	3	108
A.5	Rehabilitation	190	54	13	257	196	53	13	262	188	52	12	252
A.6	Health Other	466	51	11	528	471	52	11	534	464	50	10	525
A.7	Medical Only	<u>26</u>	<u>9</u>	<u>1</u>	<u>36</u>	<u>24</u>	<u>9</u>	<u>1</u>	<u>34</u>	<u>22</u>	<u>8</u>	<u>1</u>	<u>31</u>
A.8	Sub-Total Medical	2,578	534	123	3,235	2,638	537	127	3,302	2,553	520	119	3,193
A.9	Temporary Total	475	102	35	611	479	101	35	615	476	101	35	612
A.10	Permanent Total Disability	2,892	620	208	3,721	2,916	617	203	3,736	2,898	619	207	3,723
A.11	Death	794	155	19	967	796	154	18	969	796	153	19	968
A.12	% Permanent Partial	167	48	15	230	167	49	15	231	164	47	14	226
A.13	Permanent Partial	78	7	1	86	76	7	1	84	76	7	1	84
A.14	Wage Loss and Temporary Pa	73	23	6	103	73	23	6	102	73	23	6	102
A.15	Lump Sum Settlements	1,090	147	41	1,278	1,102	146	40	1,288	1,089	145	40	1,274
A.16	Living Maintenance	49	7	3	59	47	7	3	57	49	7	3	59
A.17	Lump Sum Advancements	169	27	7	203	171	27	7	205	168	26	7	202
A.17	Additional Awards	<u>22</u>	<u>0</u>	<u>0</u>	<u>23</u>	<u>22</u>	<u>0</u>	<u>0</u>	<u>23</u>	<u>23</u>	<u>0</u>	<u>0</u>	<u>23</u>
A.18	Sub-Total Indemnity	5,809	1,136	336	7,281	5,849	1,132	329	7,311	5,811	1,129	333	7,272
A.19	Self Insured (Defaulted)				57				58				58
A.20	Health Partnership Program	590	124	28	742	593	122	28	743				<u>743</u>
A.21	Pharmacy Benefit Manager	<u>28</u>	<u>5</u>	<u>2</u>	<u>35</u>	<u>29</u>	<u>6</u>	<u>2</u>	<u>36</u>				<u>36</u>
A.22	Total SIF Unpaid Loss	9,006	1,800	489	11,352	9,109	1,797	486	11,449				11,301
B	Ancillary Funds												
B.1	Self-Insuring Employers Guaranty Fund (SIEGF)				403				396				
B.2	Coal-Workers Pneumoconiosis Fund (CWPF)				94				94				
B.3	Public Work-Relief Employees' Comp. Fund (PWREF)				2				2				
B.4	Marine Industry Fund (MIF)				1				1				
B.5	Disabled Workers' Relief Fund (DWRP)				1,765				1,767				
B.6	Administrative Cost Fund (ACF)				<u>966</u>				<u>960</u>				
C	Total Unpaid Loss and LAE				14,582				14,667				

Column Notes

- (1) - (3) From the discounted unpaid loss on Page 1 of the respective employer type and category's unpaid liability analysis.
(4) Column (1) + Column (2) + Column (3).
(5) From Summary 6, Column (1) of the prior report evaluated as of 3/31/2020.
(6) From Summary 6, Column (2) of the prior report evaluated as of 3/31/2020.
(7) From Summary 6, Column (3) of the prior report evaluated as of 3/31/2020.
(8) Column (5) + Column (6) + Column (7).
(9) From Exhibit V.2, Column (5).
(10) From Exhibit V.3, Column (5).
(11) From Exhibit V.4, Column (5).
(12) Indicated Unpaid Loss' are those indicated by actuarial analyses as of 6/30/2020 and 3/31/2020.
All figures are shown rounded to nearest million and may not add to totals for this reason.
6/30/2020 unpaid loss and LAE are discounted at 4.00% annual interest rate. 3/31/2020 unpaid loss and LAE are discounted at 4.00%.

**OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE
As of 6/30/2020 (Using data as of 6/30/2020)
(\$Millions)**

**Comparison of Indicated 3/31/20 Discounted Unpaid Loss and LAE
Difference in 6/30/2020 and 3/31/2020 Evaluations**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	6/30/20 Eval	6/30/20 Eval	6/30/20 Eval	6/30/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	3/31/20 Eval	Difference	Difference	Difference
	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Unpaid	Difference	Difference	Difference
	<u>PA</u>	<u>PEC</u>	<u>PES</u>	<u>Total</u>	<u>PA</u>	<u>PEC</u>	<u>PES</u>	<u>Total</u>	<u>PA</u>	<u>PEC</u>	<u>PES</u>	<u>Total</u>
A State Insurance Fund (SIF)												
A.1 Hospital	677	164	32	872	697	164	33	895	(21)	(1)	(1)	(23)
A.2 Physician	533	126	33	691	548	128	33	710	(16)	(2)	(0)	(18)
A.3 Pharmacy	607	104	31	742	618	105	32	755	(11)	(1)	(1)	(13)
A.4 Chiropractor	80	26	3	109	83	26	4	113	(3)	(1)	(0)	(4)
A.5 Rehabilitation	190	54	13	257	196	53	13	262	(6)	1	0	(4)
A.6 Health Other	466	51	11	528	471	52	11	534	(5)	(1)	(1)	(7)
A.7 Medical Only	<u>26</u>	<u>9</u>	<u>1</u>	<u>36</u>	<u>24</u>	<u>9</u>	<u>1</u>	<u>34</u>	<u>2</u>	<u>0</u>	<u>(0)</u>	<u>2</u>
A.8 Sub-Total Medical	2,578	534	123	3,235	2,638	537	127	3,302	(60)	(3)	(4)	(67)
A.9 Temporary Total	475	102	35	611	479	101	35	615	(5)	1	(0)	(4)
A.10 Permanent Total Disability	2,892	620	208	3,721	2,916	617	203	3,736	(23)	3	5	(16)
A.11 Death	794	155	19	967	796	154	18	969	(3)	1	1	(2)
A.12 % Permanent Partial	167	48	15	230	167	49	15	231	(0)	(1)	0	(1)
A.13 Permanent Partial	78	7	1	86	76	7	1	84	2	(0)	(0)	2
A.14 Wage Loss and Temporary Pa	73	23	6	103	73	23	6	102	1	(0)	0	1
A.15 Lump Sum Settlements	1,090	147	41	1,278	1,102	146	40	1,288	(12)	1	1	(11)
A.16 Living Maintenance	49	7	3	59	47	7	3	57	2	0	(0)	2
A.17 Lump Sum Advancements	169	27	7	203	171	27	7	205	(2)	(0)	0	(2)
A.17 Additional Awards	<u>22</u>	<u>0</u>	<u>0</u>	<u>23</u>	<u>22</u>	<u>0</u>	<u>0</u>	<u>23</u>	<u>0</u>	<u>(0)</u>	<u>(0)</u>	<u>0</u>
A.18 Sub-Total Indemnity	5,809	1,136	336	7,281	5,849	1,132	329	7,311	(40)	5	6	(29)
A.19 Self Insured (Defaulted)				57				58				(0)
A.20 Health Partnership Program	590	124	28	742	593	122	28	743	(2)	1	1	(0)
A.21 Pharmacy Benefit Manager	<u>28</u>	<u>5</u>	<u>2</u>	<u>35</u>	<u>29</u>	<u>6</u>	<u>2</u>	<u>36</u>	(0)	(0)	(0)	(0)
A.21 Total SIF Unpaid Loss	9,006	1,800	489	11,352	9,109	1,797	486	11,449	(103)	3	3	(97)
B Ancillary Funds												
B.1 Self-Insuring Employers Guaranty Fund (SIEGF)				403				396				8
B.2 Coal-Workers Pneumoconiosis Fund (CWPF)				94				94				0
B.3 Public Work-Relief Employees' Comp. Fund (PWREF)				2				2				(0)
B.4 Marine Industry Fund (MIF)				1				1				(0)
B.5 Disabled Workers' Relief Fund (DWRF)				1,765				1,767				(2)
B.6 Administrative Cost Fund (ACF)				<u>966</u>				<u>960</u>				<u>6</u>
C Total Unpaid Loss and LAE				14,582				14,667				(85)

Column Notes

- (1) - (3) From the discounted unpaid loss on Page 1 of the respective employer type and category's unpaid liability analysis.
 - (4) Column (1) + Column (2) + Column (3).
 - (5) From Summary 7, Column (1) of the prior report evaluated as of 3/31/2020.
 - (6) From Summary 7, Column (2) of the prior report evaluated as of 3/31/2020.
 - (7) From Summary 7, Column (3) of the prior report evaluated as of 3/31/2020.
 - (8) Column (5) + Column (6) + Column (7).
 - (9) Column (1) - Column (5).
 - (10) Column (2) - Column (6).
 - (11) Column (3) - Column (7).
 - (12) Column (4) - Column (8).
- All figures are shown rounded to nearest million and may not add to totals for this reason.
6/30/2020 unpaid loss and LAE are discounted at 4.00% annual interest rate. 3/31/2020 unpaid loss and LAE are discounted at 4.00%.

OHIO BUREAU OF WORKERS' COMPENSATION
UNPAID LOSS AND LOSS ADJUSTMENT EXPENSE
As of 6/30/2020 (Using data as of 6/30/2020)
(\$Millions)
Indicated Unbilled Premium Receivable

		(1) Estimated Discounted Unpaid Loss	(2) Estimated Discounted Unpaid LAE	(3) Estimated Discounted Unpaid Total	(4) Contra Account	(5) BWC Portion of Unbilled	(6) Indicated Unbilled Premium Receivable
A.1	Public Employers - State Agencies	458.6		458.6			
A.2	Self Insured Defaulted)	57.3		57.3			
A.3	Health Partnership Program		29.2	29.2			
A.4	Pharmacy Benefit Manager		35.4	35.4			
A	State Insurance Fund	516.0	64.6	580.6		3.9	576.7
B.1	Disabled Workers' Relief Fund (DWRf I)	430	0.3	430.5			
B.2	Disabled Workers' Relief Fund (DWRf II)	1,333.6	1.1	1,334.7			
B	Disabled Workers' Relief Fund (PA, PE, PWREF)	1,763.7	1.4	1,765.1	0.0	0.1	1,765.0
C	Self-Insuring Employers Guaranty Fund	397.6	5.0	402.6	19.3		383.2
D	Administrative Cost Fund		74.3	74.3		0.3	74.0
E	Total	2,677.3	145.3	2,822.6	19.3	4.3	2,799.0

Row Notes

- A.1 (1) Summary 6, Row (A.8), Column (3) + Summary 6, Row (A.18), Column (3).
A.2 (1) Summary 6, Row (A.19), Column (4).
A.3 (2) From Exhibit T.1, Row (F), PES and SI.
A.4 (2) From Exhibit U-PA.1, Column (8) + Exhibit U-PEC.1, Column (8) + Exhibit U-PES.1, Column (8).
B (1) From Exhibit R.1.
B (2) From Exhibit M, Row (F.7), Column (2).
C (1) From Exhibit N.2, Column (8) + Exhibit N.12, Column (3) [Total].
C (2) From Exhibit M, Row (F.8), Column (2) + Exhibit T.2, Row (D).
D (2) From Exhibit M, Row (F.2), Column (3) + Exhibit M, Row (F.5), Column (3) + Exhibit M, Row (F.6), Column (3).
(3) Column (1) + Column (2).
(4) Provided by Ohio Bureau of Workers' Compensation.
(5) Provided by Ohio Bureau of Workers' Compensation.
(6) Column (3) - Column (4) - Column (5).

7. ACKNOWLEDGEMENT OF QUALIFICATIONS

Jeffery J. Scott is a Partner of Oliver Wyman, a Fellow of the Casualty Actuarial Society, and a member of the American Academy of Actuaries. He meets the Academy's qualification standards to issue this actuarial report.

9. GLOSSARY

Accident Period

The period in which the event giving rise to a claim occurred, regardless of when the claim is actually reported.

Accounting Date

The point in time at which the estimate of unpaid claims and ACAE is evaluated.

Actuarial Central Estimate

An estimate that represents an expected value over the range of reasonably possible outcomes. Such range of reasonably possible outcomes may not include all conceivable outcomes.

Adjusting and Other Expenses (AO)

Those expenses other than allocated expenses, which include fees of adjusters and settling agents, loss adjustment expenses for participation in voluntary and involuntary market pools if reported by calendar year, attorney fees incurred in the determination of coverage, including litigation between the insurer and the policyholder; and fees or salaries for appraisers, private investigators, hearing representatives, re-inspectors and fraud investigators, if working in the capacity of an adjuster.

Allocated Loss Adjustment Expense (ALAE)

Expense costs associated with the handling and settling of an individual claim that can be directly attributed to the particular claim. Fees paid to outside defense attorneys and investigation firms are examples of this expense cost.

Case Reserves

The unpaid claim estimates established by adjusters on an individual claim basis.

Claim

A demand for payment under the coverage provided by a plan or contract. As used throughout this Glossary, it also includes suits, potentially compensable events, notifications, and unasserted claims.

Claim Adjustment Expenses

The costs of administering, determining coverage for, settling, or defending claims. Claim adjustment expenses include allocated claim adjustment expenses and unallocated claim adjustment expenses.

Claim Frequency

The number of claims that occur over a period of time per unit of exposure.

Claim Reporting Pattern

The rate at which claims are assumed to be reported over time.

Claim Severity

The average cost per claim.

Coefficient of Variation

A statistical measure of dispersion. The coefficient of variation is calculated as the standard deviation of the random process divided by the expected value (mean).

Confidence Level

The probability that the outcome of a random process will not exceed an associated estimate. For example, a 75% confidence level for an unpaid claim estimate of \$10 million would indicate that there is a 75% probability that the actual claim payments will be less than or equal to \$10 million. The estimate is defined in the context of the risks modeled in our analysis and may not consider all factors contributing to variability of outcomes.

Credibility

A measure of the predictive value of a body of data.

Development

The change between valuation dates in the observed values of certain fundamental quantities that may be used in the unpaid claim estimation process.

For example, the number of reported claims associated with events occurring within a particular period will change from one valuation date to the next until all claims have been reported. In a similar fashion, the paid claim amounts for events occurring within a particular period will change from one valuation date to the next until all claims have been reported and closed. The change in the number of reported claims or the change in the paid claim amounts is referred to as development. The concept of development also applies to reported incurred losses.

Discounted Unpaid Loss Estimate

The unpaid loss amount estimate presented on a basis that reflects the time value of money. In other words, how much would need to be invested as of the accounting date such that principal and interest would be equal to the expected future claim payments as they come due.

Estimated Ultimate Incurred Losses

The estimated cost of claims during a period. Ultimate incurred losses represent the total of paid claim amounts, case reserves, and IBNR.

Event

The incident or activity that triggers potential for claim or allocated claim adjustment expense payment.

Exposure

A measure of the underlying potential for claim costs.

IBNR

The unpaid claim estimate for: (a) events that have occurred for which claims have not been reported as of the accounting date, (b) future development of the case reserves, (c) claims that have been reported but not yet recorded in the loss listing, and (d) claims that have been closed but that will be reopened.

Loss

The cost associated with a claim. The cost may or may not include loss adjustment expenses.

Loss Adjustment Expenses

The costs of administering, determining coverage for, settling, or defending claims. Loss adjustment expenses include allocated loss adjustment expenses and unallocated loss adjustment expenses.

Method

The systematic procedure for developing an actuarial estimate.

Model

A mathematical or empirical representation of a specified phenomenon.

Model Risk

The risk that the methods are not appropriate to the circumstances or the models are not representative of the specified phenomenon.

Occurrence Period

The period in which the event giving rise to a claim occurred, regardless of when the claim is actually reported.

Paid Losses

The total aggregate dollar amount paid on all reported claims as of a certain date.

Parameter Risk

The risk that the assumptions or parameters used in the methods or models are not representative of future outcomes.

Payment Pattern

The rate at which claims are paid over time.

Process Risk

The uncertainty associated with the projection of future contingencies that are inherently variable, even when the parameters are known with certainty.

Recorded Claim Reserve or Liability

The provision for unpaid claim amounts shown in a published financial statement or in an internal statement of financial condition.

Recorded Date

The date on which the claim is first entered in the statistical records of the insurer or claims administrator.

Report Date

The date on which the claim is first reported or recorded (in practice it is often taken to be the recorded date).

Report Period

The period in which a claim is reported, regardless of the time period in which the event occurred.

Reported Incurred Loss Amount

The total of paid claim amounts and case reserves.

Review Date

The date through which information is considered in the unpaid claim estimate analysis.

Risk Margin

An amount that may be added to the unpaid claim estimate to recognize the uncertainty in the estimate.

Salvage

Recoveries due to the sale of damaged or recovered property.

Subrogation

Recoveries from a third party responsible for the event for which a claim has already been paid.

Unallocated Loss Adjustment Expense (ULAE)

Loss adjustment expenses that cannot be attributed to an individual claim. Typically includes salaries, utilities, and rent apportioned to the claim adjustment expense function but not readily assignable to specific claims.

Undiscounted Unpaid Loss Estimate

The unpaid loss estimate presented on a basis that does not reflect the time value of money.

Unpaid Loss Estimate

The estimate of the obligation for future payments resulting from losses due to past events.

Valuation Date

The date through which transactions are included in the data used in the unpaid claim estimate analysis.

10. DATA

For this study we relied on the information provided by BWC. Additional details can be found in the appendix.

The most recent files were provided by Mr. Jason Head and Mr. David Childress of the BWC. The following files were provided along with historic files that had been provided in previous analyses by the BWC:

- 2nd qtr 2020 QTRMRCR.TRENDS.CSV
- Payroll and Premium Information – 2nd quarter 2020.xlsx
- Hospital Overpayment Recoveries
- Reserve Study Extract 20200630.txt
- Quarterly Incremental First Indemnity Payment as of 06-30-2020 All Injury Years.xlsx
- 2020 2nd qtr SI Data for Oliver Wyman-Tim.laccdb
- Surplus Report_FY2020.xlsx
- ACF Payments fiscal years 2006 through fiscal year to date 2020.xlsx
- MCO FEE PMTS1.xlsx
- Contraunbilled balances and BWC's portion of Unbilled.xlsx
- PTD and Survivor Benefits First Payment as of 6-30-2020 all Injury Years - Quarterly.xlsx
- Pharmacy Rebate Data – For OW.xlsx (not updated, no rebates this quarter)
- PBM Fee for Reserving 6-30-2020.xlsx
- Unaudited June 2020 Financial Statements.pdf
- Enterprise Report July 2020.pdf
- Oliver Wyman's prior analysis using data evaluated as of March 31, 2020 and the underlying workpapers.

In addition, we relied on correspondence with Mr. Christopher Carlson, Mr. Daniel Myers, Ms. Jeana Holewinski, and Mr. David Childress regarding background information on the BWC's data and accounting information.

11. EXHIBITS

Private Employers - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020

PA Cost Trends

Medical

- A1. Hospital
- A2. Physician
- A3. Pharmacy
- A4. Chiropractor
- A5. Rehabilitation
- A6. Health Other
- A7. Medical Only
- A8. Total Medical (excluding Medical Only)

Indemnity

- B. Temporary Total
- C. Permanent Total Disability
- D. Death
- E. % Permanent Partial Total
- F. Permanent Partial
- G. Wage Loss+Living Maintenance/Wage Loss & Change of Occupation
- H. Temporary Partial & Change of Occupation (<1987)
- I. Lump Sum Settlements
- J. Living Maintenance
- K. Lump Sum Advancements
- L. Additional Awards

Public Employers – Taxing Districts - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020

PEC Cost Trends

Medical

- A1. Hospital
- A2. Physician
- A3. Pharmacy
- A4. Chiropractor
- A5. Rehabilitation
- A6. Health Other
- A7. Medical Only
- A8. Total Medical (excluding Medical Only)

- Indemnity
- B. Temporary Total
- C. Permanent Total Disability
- D. Death
- E. % Permanent Partial Total
- F. Permanent Partial
- G. Wage Loss+Living Maintenance/Wage Loss & Change of Occupation
- H. Temporary Partial & Change of Occupation (<1987)
- I. Lump Sum Settlements
- J. Living Maintenance
- K. Lump Sum Advancements
- L. Additional Awards

Public Employers – State Agencies - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020

PES Cost Trends

Medical

- A1. Hospital
- A2. Physician
- A3. Pharmacy
- A4. Chiropractor
- A5. Rehabilitation
- A6. Health Other
- A7. Medical Only
- A8. Total Medical (excluding Medical Only)

Indemnity

- B. Temporary Total
- C. Permanent Total Disability
- D. Death
- E. % Permanent Partial Total
- F. Permanent Partial
- G. Wage Loss+Living Maintenance/Wage Loss & Change of Occupation
- H. Temporary Partial & Change of Occupation (<1987)
- I. Lump Sum Settlements
- J. Living Maintenance
- K. Lump Sum Advancements
- L. Additional Awards

Ancillary Funds - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020

- M. Administrative Cost Fund (ACF)
- N. Self-Insured Employers Guaranty Fund (SIEGF)
- O. Coal Workers' Pneumoconiosis (CWPF) (separate report)
- P. Public Work-Relief Employee's Fund (PWREF)
- Q. Marine Industry Fund (MIF)
- R. Disabled Workers' Relief Fund (DWRP)

Miscellaneous Unpaid Liability

- S. Self-Insured Employers (Prior to 1987)
- T. Health Plan Partnership (HPP)
- U. Pharmacy Benefit Manager

Appendix - Unpaid Loss and Loss Adjustment Expense Analysis as of June 30, 2020 Using Data as of June 30, 2020

Supporting Calculations and Tables

- V. Re-estimated Unpaid Loss Analysis
- W. Lost Time and PTD Claim Counts
- X. Investment Income
- Y. Mortality
 - Wage Distribution Reserve
 - Reserve Factor Calculations
 - Calendar Year Payment Reconciliations



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