



Preliminary Cost Impact Analysis

ILLINOIS WORKERS' COMPENSATION COMMISSION EMERGENCY RULE Effective April 16, 2020

NCCI has evaluated the impact of the Illinois Workers' Compensation Commission (IWCC) emergency rule, effective on April 16, 2020. The emergency rule establishes a rebuttable presumption, in proceedings before the IWCC, that an injury, occupational disease, or period of incapacity to a first responder or front-line worker¹ resulting from exposure to the novel coronavirus (COVID-19), arose out of and in the course of employment. The emergency rule will result in a significant increase in workers compensation (WC) costs for the impacted classifications while the presumption is in effect.

A precise estimate of this increase cannot be determined at this time. However, following the framework included in the NCCI white paper titled *COVID-19 and Workers Compensation: Modeling Potential Impacts*, illustrative scenarios are provided in this analysis to estimate the potential magnitude of the expected increase on WC system costs due to the emergency rule. The following table provides a range of potential impacts based on numerous key assumptions, of which some of the more impactful are displayed:

Hypothetical Scenarios	#1	#2	#3
(1) Infection Rate	5%	20%	50%
(2) Claim Report Rate	50%	50%	50%
(3) Incremental Compensability Rate	Varies by occupational classification ²		
(4) Fatal Rate	0.5%	0.5%	0.5%
(5) Share of WC Losses Affected by Rule	Varies by occupational classification ³		
(6) Potential Percentage Impacts on WC System Costs⁴	+2%	+28%	+135%
(7) Prior Estimated Annual WC System Costs ⁵	\$3,299M	\$3,299M	\$3,299M
(8) Potential Dollar Impacts on WC System Costs = (6) x (7)	+\$66M	+\$924M	+\$4,453M

¹ The emergency rule applies to any individuals employed as police, fire personnel, emergency medical technicians, or paramedics, as well as all other individuals employed and considered as first responders, health care providers engaged in patient care, corrections officers, and the crucial personnel identified under Section 1 Parts 7 to 12 of the Governor's Executive Order 2020-10 dated March 20, 2020.

² Additional COVID-19 claims becoming compensable due to the emergency rule, not the total compensability rate for all COVID-19 claims. See Appendix B, Table 2 for details.

³ See Appendix B, Table 3 for details.

⁴ See Appendix A for calculation details.

⁵ The estimated dollar impact is the percentage impact(s) displayed multiplied by 2018 written premium of \$2,467M from NAIC Annual Statement data for Illinois, adjusted to include self-insurance. It does not include the policyholder retained portion of deductible policies or adjustments for subsequent changes in premium levels. The use of adjusted premium as the basis for the dollar impact assumes that expenses and other premium adjustments will be affected proportionally to the change in benefit costs. Data on self-insurance is approximated using the National Academy of Social Insurance's October 2019 publication "Workers' Compensation: Benefits, Costs, and Coverages, 2017."



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Some important considerations related to these impacts are as follows:

- **As the white paper indicates, there is considerable uncertainty in many of the assumptions included in the framework presented, several of which are not explicitly shown in the table above.**
- **The effect of the rebuttable presumption on the percentage of filed claims deemed compensable is uncertain.**
- **Some considerations are not explicitly incorporated in these figures that could result in higher impacts, such as:**
 - **permanent disability benefit awards, and**
 - **potential for benefit payments during the quarantine period, which may depend on the interpretation of the term "incapacity" in the emergency rule⁶**
- **It should not be interpreted to suggest that assumption selections outside of the above (or those provided in the baseline scenario in the white paper) ranges are not appropriate.**

The analysis was completed in an expedited manner and is considered preliminary. NCCI may supplement this document with a complete and final analysis of the rule at a later date. It is possible that the estimated impact of the final analysis will differ materially from what is provided in this document. Note that the absence of an update to the preliminary analysis does not signify that this is NCCI's final assessment of the estimated cost impact of the emergency rule.

This emergency rule was evaluated in isolation, without taking into account any other state or federal legislation currently being considered or recently enacted. The analysis focuses solely on the impact of the emergency rule on WC system costs. However, other factors resulting from the COVID-19 crisis, such as the increased usage of telecommuting and longer-term effects to the economy, may also have significant, potentially offsetting, impacts to the WC system.

Description of Emergency Rule and Actuarial Comments

Currently, Illinois Compiled Statutes (ILCS) Chapter 820, Section 310 establishes standards for when compensation for disability or death is payable due to occupational disease. The emergency rule modifies Section 9030.70(a) of the Illinois Rules of Evidence, which apply in proceedings before the IWCC, to create a rebuttable presumption in any proceeding before the IWCC, that an injury, occupational disease, or period of incapacity resulting from exposure to COVID-19 has arisen out of and in the course of the worker's employment, and is causally connected to the hazards or exposures of the worker's employment. This presumption applies to

⁶ This document contemplates only potential WC losses arising from workers actually contracting COVID-19. Depending on the interpretation of the emergency rule, indemnity WC benefits could be paid to workers exposed to COVID-19 and unable to work due to subsequent quarantine who do not ultimately develop the disease.



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any first responder or front-line worker as defined in the Executive Order. The emergency rule is effective April 16, 2020, and applies to employees whose injury, occupational disease, or period of incapacity resulted from exposure to COVID-19 during the current Gubernatorial Disaster Proclamation and any subsequent COVID-19 disaster proclamations.

It is possible some portion of filed COVID-19 claims may be found to be compensable prior to the IWCC's issuance of the emergency rule. This could have occurred if it were determined that the COVID-19 infection arose out of and in the course and scope of the employment, with an apparent causal connection between the conditions under which the employee worked and the contraction of the disease. However, prior to the emergency rule, the burden of proof rested on the employee to prove, by a preponderance of the evidence, that their COVID-19 case was compensable. Under the emergency rule, the new rebuttable presumption shifts the burden of proof to the employer and employer's WC insurer to demonstrate that a covered employee's COVID-19 infection did not arise out of the course and scope of their employment.

Note however that 305 ILCS 6(f) already provides this type of rebuttable presumption of compensability for respiratory diseases to firefighters and emergency medical technicians with at least five years of service. For this subset of first responders, the emergency rule is expected to have relatively little to no effect, to the extent that it duplicates the existing statutory presumption.

The emergency rule will increase WC system costs in Illinois for the affected job classifications, as some claims which may not have been deemed compensable under the rules of evidence prior to the emergency rule, may now be found to be compensable under the presumption. However, there are substantial uncertainties which render a precise estimate of the impact on system costs difficult. These uncertainties include, but are not limited to:

- The incidence rate of the COVID-19 pandemic among the portion of the Illinois population covered by WC,
- The effects of virus containment measures and the resulting decrease in economic activity on the composition of payroll and exposure to COVID-19 at the workplace,
- The rate at which employees infected with COVID-19 will be diagnosed or test positive for it and file a WC claim,
- The share of claims which would have ultimately been compensable under the rules in effect prior to the emergency rule,
- The share of claims which will be deemed compensable under the emergency rule,
- The claim severity of compensable COVID-19 related WC claims, and
- The extent to which the above unknowns will vary among individual job classifications.



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Illustrative Scenarios

Although NCCI is unable to precisely quantify the impact of the emergency rule on Illinois' WC system costs, this section of the document will describe potential WC system cost impacts under three **hypothetical** scenarios for illustrative purposes. Scenarios 1 and 3 are not intended to display a minimum and maximum possible impact. Rather, they are hypothetical scenarios reflecting the low and high ends of a range of reasonable assumptions based on publicly available research, WC loss data collected by NCCI, and actuarial judgement. Likewise, Scenario 2 is not intended to indicate NCCI's best estimate of the potential WC system cost impact; it is merely one possible hypothetical scenario among many, using values from the middle of a range of potential assumptions.

The impacts for the three hypothetical scenarios contained in this document were created using NCCI's COVID-19 white paper, which was created using publicly available research on the epidemiological characteristics of the COVID-19 virus, WC loss data collected by NCCI, and other publicly available information. The model is described in detail in the white paper and can be found on ncci.com.

The white paper appendices contain most of the relevant inputs which were used to parameterize the three scenarios described in this document. Most of these inputs from the white paper were used without alteration. However, to reflect the specific circumstances surrounding the implementation of the emergency rule in Illinois, the scenarios in this document require selection of three key parameters:

- The assumed infection rate,
- The share of claims deemed compensable, and
- The share of system costs assumed to be subject to the emergency rule.

The NCCI white paper displays potential impacts to WC losses for a wide array of possible infection rates among the employed population. In this document, ultimate infection rates of 5%, 20%, and 50% are used for Scenarios 1, 2, and 3, respectively.

The illustrative scenarios in the white paper reflect a compensability rate for COVID-19 related claims of 100%. However, the paper indicates that this parameter is expected to be modified by the user based on their expectations of compensability for the state and occupations being analyzed. The scenarios in this document contemplate compensability rates less than 100% for three reasons:

- As discussed above, even in the absence of the emergency rule, it is possible that a portion of COVID-19 claims would have been deemed compensable. The scenarios in this



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document are concerned with the incremental increase in WC system costs due to the implementation of the emergency rule, rather than the overall change in system costs due to all aspects of the current pandemic.

- The Illinois WC Act already provides for a rebuttable presumption of compensability for firefighters and emergency medical technicians with at least five years of service.
- The emergency rule establishes a rebuttable presumption of compensability. Therefore, even in the presence of the emergency rule, it is possible that some portion of COVID-19 claims are deemed noncompensable.

The scenarios in this document also contemplate the possibility that healthcare worker and first responder COVID-19 claims would likely have already been deemed compensable at a higher rate than among other “essential” occupations in the absence of the emergency rule. Given all of these considerations, lower incremental compensability rates are used for first responders and healthcare workers than for other essential workers in these scenarios.

The hypothetical cost impacts from the framework described in the NCCI white paper must then be converted to impacts on overall WC losses. Therefore, the impact on covered workers must be multiplied by the proportion of overall WC losses within essential job classifications. NCCI estimates that 2.6% of losses in the Illinois WC system are attributable to healthcare workers, and 0.7% are attributable to privately insured first responders⁷. The share of losses attributable to essential workers who are not healthcare workers or first responders is uncertain, as the Executive Order which enumerates the categories of essential workers is broadly worded, and its applicability to certain job classifications is unclear. Based on an analysis of historical Illinois losses by occupational classification, NCCI estimates that essential workers (as defined in Governor’s Executive Order 2020-10), other than healthcare workers and first responders, may represent between 55% and 75% of privately insured WC losses in the state.

The estimated impact of the emergency rule in each scenario is shown in the table below, broken down by healthcare workers, first responders, and other covered workers. A detailed example calculation of the impacts for each group under Scenario 2 is included in Appendix A. The selected scenario parameters discussed above are summarized in the tables in Appendix B of this document. The impact on each group is then multiplied by that group’s share of total losses from Table 3 of Appendix B and then summed by scenario to estimate an overall impact on system costs.

⁷ NCCI Workers Compensation Statistical Plan data for Illinois policies becoming effective between 4/1/2012 and 3/31/2017. This figure may understate the first responder share because since the organizations employing first responders are often self-insured and therefore not required to report data to NCCI.



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Impact of the Emergency Rule on WC System Costs

Hypothetical Scenarios	#1	#2	#3
Healthcare Workers	0%	+46%	+230%
First Responders	0%	+7%	+37%
Other Essential Workers	+3%	+41%	+172%
Overall System Costs	+2%	+28%	+135%



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Appendix A

Hypothetical Scenario #2 – Illinois – Impact to Expected Losses – Healthcare Workers

Row Description	Scenario Assumption	Symptom Type			
Row Description	Mild	Moderate	Severe	Overall ³	
(1) Infection Rate	20%				
(2) Report Rate	50%				
(3) Hospitalization Rate	10%				
(4) Critical Care Rate	15%				
(5) Fatal Rate	0.5%				
(6) Average Fatal Indemnity Benefit	\$391,378				
(7) Average Salary ¹	\$61,859				
(8) Pure Premium Factor ²	0.37				
(9) COVID-19 Claim Frequency	9.0% <small>= (1) x (2) x [1.0 - (3)]</small>	0.850% <small>= (1) x (2) x (3) x [1.0 - (4)]</small>	0.150% <small>= (1) x (2) x (3) x (4)</small>	10% <small>= (1) x (2)</small>	
(10) Additional Compensability Rate	15%	15%	15%	15%	
(11) Wage Replacement Severity	\$990	\$1,891	\$3,780	\$1,108	
(12) Medical Severity	\$750	\$32,770	\$32,770	\$3,952	
(13) Nonfatal Total Severity <small>= (11) + (12)</small>	\$1,740	\$34,661	\$36,550	\$5,060	
Row Description	Estimate				
(14) Workforce Population	571,580				
(15) Expected Payroll	\$35,357M	<small>= (14) x (7)</small>			
(16) COVID-19 Total Severity	\$7,017	<small>= (13) Overall + (6) x (5)</small>			
(17) COVID-19 Expected Losses ⁴	\$60.2M	<small>= (14) x (9) Overall x (10) x (16)</small>			
(18) Current Expected Losses ⁴	\$130.8M	<small>= (15)/100 x (8)</small>			
(19) Scenario Expected Losses ⁴	\$191.0M	<small>= (17) + (18)</small>			
(20) Scenario Impact⁴	46%	<small>= (19) / (18) - 1.0</small>			

¹ Annual mean wage through May 2019 from the U.S. Bureau of Labor Statistics for "Healthcare Practitioners and Technical Occupations" and "Healthcare Support Occupations"

² Weighted average pure premium factor from the approved filing effective 01/01/2020 for the largest healthcare-related (8832, 8833, 8835) classifications.

³ Overall (10) - (13) derived as the weighted average of the Mild/Moderate/Severe symptom values

⁴ Estimate for associated occupations, NOT the overall state



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Hypothetical Scenario #2 – Illinois – Impact to Expected Losses – First Responders

Row Description	Scenario Assumption
(1) Infection Rate	20%
(2) Report Rate	50%
(3) Hospitalization Rate	10%
(4) Critical Care Rate	15%
(5) Fatal Rate	0.5%
(6) Average Fatal Indemnity Benefit	\$457,773
(7) Average Salary ¹	\$72,200
(8) Pure Premium Factor ²	1.40

Row Description	Symptom Type			Overall ³
	Mild	Moderate	Severe	
(9) COVID-19 Claim Frequency	9.0%	0.850%	0.150%	10%
	$= (1) \times (2) \times [1.0 - (3)]$	$= (1) \times (2) \times (3) \times [1.0 - (4)]$	$= (1) \times (2) \times (3) \times (4)$	$= (1) \times (2)$
(10) Additional Compensability Rate	10%	10%	10%	10%
(11) Wage Replacement Severity	\$1,158	\$2,211	\$4,421	\$1,296
(12) Medical Severity	\$750	\$32,770	\$32,770	\$3,952
(13) Nonfatal Total Severity	\$1,908	\$34,981	\$37,191	\$5,248
	$= (11) + (12)$			

Row Description	Estimate	
(14) Workforce Population	82,270	
(15) Expected Payroll	\$5,940M	$= (14) \times (7)$
(16) COVID-19 Total Severity	\$7,537	$= (13) \text{ Overall} + (6) \times (5)$
(17) COVID-19 Expected Losses ⁴	\$6.2M	$= (14) \times (9) \text{ Overall} \times (10) \times (16)$
(18) Current Expected Losses ⁴	\$83.2M	$= (15)/100 \times (8)$
(19) Scenario Expected Losses ⁴	\$89.4M	$= (17) + (18)$
(20) Scenario Impact⁴	7%	$= (19) / (18) - 1.0$

¹ Annual mean wage through May 2019 from the U.S. Bureau of Labor Statistics for "Protective Service Occupations"

² Weighted average pure premium factor from the approved filing effective 01/01/2020 for the firefighter (7704, 7710, 7711) and police (7720) classifications.

³ Overall (10) - (13) derived as the weighted average of the Mild/Moderate/Severe symptom values

⁴ Estimate for associated occupations, NOT the overall state



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Hypothetical Scenario #2 – Illinois – Impact to Expected Losses – Other Essential Workers

Row Description	Scenario Assumption
(1) Infection Rate	20%
(2) Report Rate	50%
(3) Hospitalization Rate	10%
(4) Critical Care Rate	15%
(5) Fatal Rate	0.5%
(6) Average Fatal Indemnity Benefit	\$349,445
(7) Average Salary ¹	\$55,130
(8) Pure Premium Factor ²	0.88

Row Description	Symptom Type			Overall ³
	Mild	Moderate	Severe	
(9) COVID-19 Claim Frequency	9.0%	0.850%	0.150%	10%
	= (1) x (2) x [1.0 - (3)]	= (1) x (2) x (3) x [1.0 - (4)]	= (1) x (2) x (3) x (4)	= (1) x (2)
(10) Additional Compensability Rate	30%	30%	30%	30%
(11) Wage Replacement Severity	\$884	\$1,688	\$3,375	\$990
(12) Medical Severity	\$750	\$32,770	\$32,770	\$3,952
(13) Nonfatal Total Severity	\$1,634	\$34,458	\$36,145	\$4,942
	= (11) + (12)			

Row Description	Estimate	
(14) Workforce Population ⁴	3,916,760	
(15) Expected Payroll ⁴	\$215,931M	= (14) x (7)
(16) COVID-19 Total Severity	\$6,689	= (13) Overall + (6) x (5)
(17) COVID-19 Expected Losses ⁵	\$786.0M	= (14) x (9) Overall x (10) x (16)
(18) Current Expected Losses ⁵	\$1900.2M	= (15)/100 x (8)
(19) Scenario Expected Losses ⁵	\$2686.2M	= (17) + (18)
(20) Scenario Impact⁵	41%	= (19) / (18) - 1.0

¹ Annual mean wage through May 2019 from the U.S. Bureau of Labor Statistics for all occupations

² Underlying pure premium factor from the approved filing effective 01/01/2020. Due to uncertainty about the precise mix of occupations covered by the emergency rule, the weighted average pure premium factor across all classifications is used here

³ Overall (10) - (13) derived as the weighted average of the Mild/Moderate/Severe symptom values

⁴ Equal to 65% of the statewide workforce population of 6,025,790 and expected payroll of \$332,202M, respectively

⁵ Estimate for associated occupations, NOT the overall state



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Appendix B – Illinois-Specific Parameters for All Hypothetical Scenarios

Table 1 – Share of Insured Workers Ultimately Infected

Hypothetical Scenarios	#1	#2	#3
Healthcare Workers	5%	20%	50%
First Responders	5%	20%	50%
Other Essential Workers	5%	20%	50%

Table 2 – Additional Share of COVID-19 Claims Deemed Compensable

Hypothetical Scenarios	#1	#2	#3
Healthcare Workers	0%	15%	30%
First Responders	0%	10%	20%
Other Essential Workers	10%	30%	50%

Table 3 – Estimated Share of Overall Privately Insured WC System Costs

Hypothetical Scenarios	#1	#2	#3
Healthcare Workers	2.6%	2.6%	2.6%
First Responders	0.7%	0.7%	0.7%
Other Essential Workers	55.0%	65.0%	75.0%

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