Financial Statements With Supplementary Information With Independent Auditor's Report Thereon June 30, 2021 and 2020

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RSM US LLP

#### Independent Auditor's Report

The Board of Trustees
Oklahoma Schools Insurance Group

#### Report on the Financial Statements

We have audited the accompanying financial statements of Oklahoma Schools Insurance Group, which comprise the statements of net position, as of June 30, 2021 and 2020, and the related statements of revenues, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Oklahoma Schools Insurance Group as of June 30, 2021 and 2020, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

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#### Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and loss development information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information or provide any assurance.

RSM US LLP

Oklahoma City, Oklahoma November 30, 2021

#### Management's Discussion and Analysis

The following Management's Discussion and Analysis (MD&A) of the activities and financial performance of Oklahoma Schools Insurance Group (OSIG) provides an introduction to the financial statements for the years ended June 30, 2021 and 2020.

OSIG, established in July 2001, is an Interlocal Cooperation Act Agency of schools offering membership to public school districts in Oklahoma, with a mission to provide quality, cost effective, risk management products and services to its member school districts.

#### **Activity Highlights**

		30	
	2021	2020	2019
Member schools at beginning of year	452	400	375
Member schools added (lost) during the year, net	16	52	25
Total member schools, end of year	468	452	400
Member contributions	\$ 51,610,260	\$ 43,471,382	\$ 32,872,092
Member distributions	-		1,478,521

During the years ended June 30, 2021, 2020, and 2019 net position increased \$133,850, \$1,930,300 and \$23,333, respectively. These changes are a direct result of claim experience, the benefit of excess insurance policies protecting against large claim losses and investment income.

The school superintendents who serve on the OSIG Board of Trustees have played an integral part in the formation and critical decisions of OSIG. All member schools have a voice in OSIG. It is a school-owned program, run by its members and in business solely to serve Oklahoma schools.

OSIG operates under the open meeting act similar to school districts. In addition to the property and casualty insurance program available to OSIG members, OSIG offers risk management resources such as online training programs in the areas of child safety and child sexual abuse prevention and various employment practices liability issues to its member schools. OSIG also performs loss control risk assessments free of charge to its members. Additional services may be added in the future.

#### **Board of Trustees:**

- Terry Davidson, Finance Director Comanche Public Schools
- Rick Thomas, Superintendent Skiatook Public Schools
- Shelley Free, Superintendent Kiamichi Technology Center
- Brad Overton, Superintendent Cordell Schools
- Randy Hughes, Superintendent McAlester Schools
- John Cox, Superintendent Peggs Schools
- Sherry Durkee, Superintendent Sand Springs Public Schools

Executive Director: David Martin

#### Management's Discussion and Analysis

#### Financial and Activity Highlights (Continued)

Program administrators: Arthur J. Gallagher Risk Management Services, Inc. (Gallagher):

- · Wally Bryce, national vice president business development
- Jay Eshelman, regional president
- Chris Mangum, area president
- Jennifer McKenzie, program manager
- Matt McClaran, assistant program manager (loss control and underwriting)
- Brya D'Abrosca, assistant program manager (finance and marketing)
- Beth Meeker, senior customer service representative
- Susan Sullivan, administrative assistant
- Roger Johnson, independent loss control consultant
- Marty Martin, independent loss control consultant

#### Claims administrators: Alternative Service Concepts, LLC:

- · Richard Hall, claims supervisor/senior liability claims adjuster
- Ross McCollum, property claims adjuster
- · Lacrista Medina, liability claims adjuster
- · David Sepulveda, liability claims adjuster
- · Denise Wilson, claims assistant

#### Accounting, audit, and actuarial service:

- Hogan and Taylor, L.L.P. (accounting services)
- RSM US LLP (audit services)
- Select Actuarial Services (actuarial services)

#### Reinsurance coverage and carriers:

Coverage	Reinsurance Providers	AM BEST Financial Rating
Buildings and contents	Alliant Property Insurance Program	A-VIII to A++XV
Automobile physical damage	Alliant Property Insurance Program	A-VIII to A++XV
Cyber liability	Alliant Property Insurance Program	A-VIII to A++XV
Boiler and machinery	Travelers Property & Casualty	A++ XV
General liability	United Educators Insurance Company	AIX
Automobile liability	United Educators Insurance Company	AIX
Educators legal liability	United Educators Insurance Company	AIX
Umbrella liability	United Educators Insurance Company	AIX
Pollution	Interstate Fire & Casualty Insurance Company	A+XV
School violent act protection	Self-funded	N/A
Crime	Self-funded	N/A

#### Management's Discussion and Analysis

#### Overview of the Financial Statements

Included herein are summarized versions of the statements of net position, the statements of revenues, expenses and changes in net position and the statements of cash flows. These statements provide financial information on OSIG as a whole.

These statements include all assets and liabilities using the accrual basis of accounting, which is consistent with the accounting used by private-sector institutions. All of the current year's revenues and expenses are recognized when earned or incurred, regardless of when cash is received or paid. Capital assets are capitalized and depreciated over their useful lives.

This section of the report is designed to provide member school districts, creditors and suppliers with a general overview of OSIG's finances.

The statements of net position: The statements of net position and the statements of revenues, expenses and changes in net position report OSIG's net position and how it has changed over the stated period. Net position, the difference between assets plus deferred outflows of resources and liabilities plus deferred inflows of resources, is one measure of OSIG's financial health or position. OSIG has no deferred outflows or inflows at June 30, 2021, 2020 or 2019. The following summarizes OSIG's assets, liabilities and net position as of June 30, 2021, 2020 and 2019:

	As of June 30					
		2021		2020		2019
Assets:						
Cash, cash equivalents and investments	\$	15,215,888	\$	20,821,106	\$	23,003,506
Net reinsurance receivable		18,758,799		10,651,653		4,787,340
Other		36,108		91,657		82,405
Total assets	\$	34,010,795	\$	31,564,416	\$	27,873,251
Liabilities:						
Net unpaid losses and loss adjustment expenses	\$	17,997,166	\$	15,416,602	\$	12,724,860
Prepaid member contributions		2,039,372		2,286,484		1,768,368
Other		65,438		86,361		1,535,354
Total liabilities	\$	20,101,976	\$	17,789,447	\$	16,028,582
Net position:						
Investment in capital assets	\$	-	\$	11,000	\$	-
Unrestricted	7	13,908,819		13,774,969		11,844,669
Total net position	\$	13,908,819	\$	13,774,969	\$	11,844,669
	-					

### Management's Discussion and Analysis

#### Overview of the Financial Statements (Continued)

The statements of revenues, expenses and changes in net position: The following summarizes OSIG's statements of revenues, expenses and changes in net position for the years ended June 30, 2021, 2020 and 2019:

	, i	30		
	2021	2020	2019	
Operating revenues:	THURSDAY.	E. A. LEEVE	TEURIS	
Member contributions	\$ 51,610,260	\$ 43,471,382	\$ 32,872,092	
Operating expenses:				
Losses and loss adjustment expenses	16,414,213	12,229,381	9,950,688	
Reinsurance premiums	25,321,119	20,940,436	15,352,691	
Agent commissions	4,984,961	4,094,279	3,175,125	
Management fees	3,612,718	3,359,429	2,629,767	
Claims administration fees	719,233	647,117	588,769	
Risk management services	166,328	166,397	137,512	
Other expenses	472,020	590,477	289,281	
Total operating expenses	51,690,592	42,027,516	32,123,833	
Operating income (loss)	(80,332)	1,443,866	748,259	
Nonoperating revenues:				
Investment income	215,073	456,713	474,913	
Net change in fair value of investments	(891)	29,721	278,682	
Net nonoperating revenues	214,182	486,434	753,595	
Distributions to members		- 4	1,478,521	
Change in net position	133,850	1,930,300	23,333	
Net position at beginning of year	13,774,969	11,844,669	11,821,336	
Net position at end of year	\$ 13,908,819	\$ 13,774,969	\$ 11,844,669	

All of OSIG's member contributions are the premiums charged to provide coverage in the OSIG plan.

The statements of cash flows: The primary purpose of the statements of cash flows is to provide information about the cash receipts and disbursements of an entity during a period. These statements also aid in the assessment of an entity's ability to generate future cash flows, ability to meet obligations as they come due and needs for external financing.

#### Management's Discussion and Analysis

#### Overview of the Financial Statements (Continued)

The following summarizes OSIG's cash flows for the years ended June 30, 2021, 2020 and 2019:

	Years Ended June 30							
		2021	2020		2019			
Cash provided by (used in):								
Operating activities	\$	(5,819,400)	\$ (2,716,771)	\$	(2,171,529)			
Investing activities	الليل	4,266,846	3,706,532		3,876,287			
Net change in cash and cash equivalents		(1,552,554)	989,761		1,704,758			
Cash and cash equivalents at beginning of year		5,953,403	4,963,642		3,258,884			
Cash and cash equivalents at end of year	\$	4,400,849	\$ 5,953,403	\$	4,963,642			

OSIG's overall liquidity decreased during the year ended June 30, 2021, and increased during 2020 and 2019, with a net decrease to cash and cash equivalents of \$1,552,554, and a net increase of \$989,761 and \$1,704,758, respectively. The cash provided by or used in operating activities is primarily related to receipts of member contributions, offset by the payment of claims, insurance premiums and management expenses. Cash provided by or used in investing activities relates to net purchases and sales of investments, plus interest and dividend income received. Cash used in financing activities relates to capital asset purchases.

#### **Member Distributions**

When underwriting results are favorable, OSIG makes every effort to distribute equity back to its' member schools. OSIG declared a distribution to the members of \$-0-, \$-0- and \$1,478,521 for the years ended June 30, 2021, 2020 and 2019.

#### Capital Asset and Debt Administration

OSIG had no significant capital asset activity and no debt administration activity during the years ended June 30, 2021, 2020 or 2019.

#### **Economic Factors and Premium Rates**

OSIG's management considered many factors when developing the annual operating budget for the fiscal year ending June 30, 2022.

The budget for the fiscal year ending June 30, 2022, was developed based upon the following key assumptions:

- Member contributions are based upon the losses projected to be incurred for the upcoming year and premium costs from the reinsurance markets. These contributions are expected to increase approximately 27.7% due to approximately 63 new members joining OSIG and an increase in reinsurance premium cost.
- Investment income is projected to be approximately 1.8% of the market value of total investments, consistent with the current low interest rate environment.
- Forecasted claim losses are based upon actuarial estimates.

#### Contacting the OSIG's Financial Management

This financial report is designed to provide a general overview of OSIG. If you have questions about this report or would like to request additional information, contact the Oklahoma Schools Insurance Group at P.O. Box 3068, Tulsa, Oklahoma 74101.

### Statements of Net Position June 30, 2021 and 2020

	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 4,400,849	\$ 5,953,403
Investments	9,405,295	8,239,282
Reinsurance receivable:		
Reinsurance receivable on paid and unpaid losses	107,248,342	86,096,822
Less reinsurance receivable on unpaid losses	(88,489,543)	(75,445,169)
Reinsurance receivable on paid losses	18,758,799	10,651,653
Accounts receivable	23,481	79,030
Prepaid expenses	12,627	12,627
Total current assets	32,601,051	24,935,995
Noncurrent assets:		
Long term investments	1,409,744	6,628,421
Total assets	\$ 34,010,795	\$ 31,564,416
_iabilities and Net Position		
Current liabilities:		
Unpaid losses and loss adjustment expenses:		
Gross case reserves	\$ 101,967,709	\$ 87,197,771
Less reinsurance recoverable on unpaid losses	(88,489,543)	(75,445,169)
Net unpaid losses and loss adjustment expenses	13,478,166	11,752,602
Accrued expenses	65,438	86,361
Prepaid member contributions	2,039,372	2,286,484
Total current liabilities	15,582,976	14,125,447
Noncurrent liabilities:		
Unpaid losses and loss adjustment expenses:		
Incurred but not reported (IBNR) reserves	4,519,000	3,664,000
Total liabilities	20,101,976	17,789,447
Net position:		
	13,908,819	13,774,969
Unrestricted	10,000,010	
Unrestricted Total net position	13,908,819	13,774,969

## Statements of Revenues, Expenses, and Changes in Net Position Years Ended June 30, 2021 and 2020

C 00.	2021	2020		
Operating revenues:				
Member contributions	\$ 51,610,260	\$ 43,471,382		
Operating expenses:				
Losses and loss adjustment expenses, net	16,414,213	12,229,381		
Reinsurance premiums	25,321,119	20,940,436		
Agent commissions	4,984,961	4,094,279		
Management fees	3,612,718	3,359,429		
Claims administration fees	719,233	647,117		
Actuarial and accounting	99,440	99,440		
Risk management services	166,328	166,397		
Other	372,580	491,037		
Total operating expenses	51,690,592	42,027,516		
Operating income (loss)	(80,332)	1,443,866		
Nonoperating revenues:				
Investment income	215,073	456,713		
Net change in the fair value of investments	(891)	29,721		
Net nonoperating revenues	214,182	486,434		
Change in net position	133,850	1,930,300		
Net position at beginning of year	13,774,969	11,844,669		
Net position at end of year	\$ 13,908,819	\$ 13,774,969		

See notes to financial statements.

### Statements of Cash Flows Years Ended June 30, 2021 and 2020

		2021	2020
Operating activities:		Towns a	
Member contributions received	\$	49,323,776	\$ 40,224,493
Prepaid member contributions received		2,039,372	2,286,484
Reinsurance premiums paid		(25,321,119)	(20,940,436)
Payments collected from reinsurers		50,803,580	22,538,114
Payments for claims, management and administrative fees			
and other operating expenses		(82,665,009)	(46,825,426)
Net cash used in operating activities	_	(5,819,400)	(2,716,771)
Investing activities:			
Purchases of investments		(4,000,000)	(35,000,000)
Proceeds from maturity and sales of investments		8,000,000	38,500,000
Interest and dividend income received		266,846	206,532
Net cash provided by investing activities	_	4,266,846	3,706,532
Net change in cash and cash equivalents		(1,552,554)	989,761
Cash and cash equivalents at beginning of year		5,953,403	4,963,642
Cash and cash equivalents at end of year	\$	4,400,849	\$ 5,953,403
Reconciliation of operating income (loss) to net cash			
used in operating activities:			
Operating income (loss)	\$	(80,332)	\$ 1,443,866
Adjustments to reconcile operating income (loss) to net cash provided by operating activities:			
Distributions payable to members applied to contributions		(12)	(1,478,521)
Changes in assets and liabilities:			V Mendeles
Reinsurance receivable on paid losses		(8,107,146)	(5,864,313)
Accounts receivable		55,549	(57,189)
Accrued expenses		(20,923)	29,528
Prepaid member contributions		(247,112)	518,116
Unpaid losses and loss adjustment expenses—case reserves		(-3.1)	_ , _ ,
and incurred but not reported (IBNR) reserves	_	2,580,564	2,691,742
Net cash used in operating activities	\$	(5,819,400)	\$ (2,716,771)

See notes to financial statements.

#### **Notes to Financial Statements**

#### Note 1. Organization and Significant Accounting Policies

**Organization:** Oklahoma Schools Insurance Group (OSIG) was established by an agreement with an effective date of July 1, 2001, and a duration of fifty years, unless sooner dissolved or extended. OSIG is an Interlocal Cooperation Act Agency of schools offering membership to 468 public school districts (the members) in Oklahoma with a mission to provide quality, cost effective, risk management products and services to its members. OSIG is owned by its members.

OSIG is governed by a seven-member Board of Trustees elected by its members. Trustee responsibilities include reviewing and ensuring compliance with OSIG's policies and services as contemplated in its establishing agreement and bylaws. Title to all assets acquired by OSIG is vested in it. Each participating member pays its share for all costs, premiums or other fees attributable to its respective participation in any plan, policy or service created in the establishing agreement and is responsible for its obligation under any contract entered into with OSIG. In the event of dissolution of OSIG, the funds and other assets not necessary to pay claims or the expenses of OSIG are to be distributed to the members in accordance with the bylaws as determined by the Board of Trustees.

**Financial statement presentation:** OSIG's financial statements are presented in accordance with the requirements of Governmental Accounting Standards Board (GASB) specific to enterprise fund activities. Under these requirements, OSIG is required to present a statement of net position classified between current and noncurrent assets and liabilities, a statement of revenues, expenses and changes in net position, with separate presentation for operating and nonoperating revenues and expenses and a statement of cash flows, using the direct method.

Basis of accounting: For financial reporting purposes, OSIG is considered a special-purpose government entity engaged only in business-type activities. Accordingly, OSIG's financial statements have been presented using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recorded when an obligation has been incurred.

Cash, cash equivalents and other deposits: OSIG considers investments with original maturities of three months or less to be cash equivalents. OSIG had no cash equivalents at June 30, 2021 or 2020.

**Investments:** Investments, which include U.S. Treasury bills, are reported at fair value. Certificates of deposit are recorded at cost which approximates fair value. Fair value is the last reported sales price at current exchange rates on a national exchange, as available, or estimated fair value as provided by the investment manager. All investments expected to be liquidated in the next fiscal year to cover claim payments are reported as current. Remaining investments are reported as noncurrent.

Allowance for doubtful accounts: Based on a review of the current status of existing receivables, OSIG's management determined that an allowance for doubtful accounts for reinsurance and accounts receivables at June 30, 2021 and 2020, was not necessary.

Reinsurance: In the ordinary course of business, OSIG has reinsured portions of its liability, property, and other insurance coverage to limit the amounts of potential losses on individual claims, although it does not discharge the primary responsibility of OSIG as direct insurance of the risks reinsured. Reinsurance is ceded on an excess of loss basis. OSIG does not report reinsured risks as liabilities unless it is probable that those risks will not be covered by reinsurers. Amounts recoverable from reinsurers are estimated in a manner consistent with the unpaid losses and loss adjustment expenses associated with the reinsurance policy.

**Unpaid losses and loss adjustment expenses:** The provision for unpaid losses and loss adjustment expenses includes the estimated costs of investigating and settling all claims incurred as of the date of the statements of net position.

#### **Notes to Financial Statements**

#### Note 1. Organization and Significant Accounting Policies (Continued)

Such amounts include estimates for case reserves and incurred but not reported (IBNR) claims and are determined on the basis of claims adjusters' evaluations and independent actuarial estimates. Unpaid losses and loss adjustment expenses are reported net of amounts that are expected to be recovered from reinsurers. Unpaid losses and loss adjustment expenses are not discounted for expected investment rates of return.

**Estimates:** The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

**Income taxes:** OSIG is a public entity organized under the laws of the state of Oklahoma and, as such, is considered to be an instrumentality of a political subdivision exempt from federal income taxes under Internal Revenue Code section 115.

Revenue recognition: Insurance contracts with members are for a one-year period beginning July 1 through June 30. Member contributions are determined on a member-by-member basis and are due at the beginning of each contract period and are recognized as revenue over the period of the contract. OSIG's program administrator calculates each member's contribution using premium rates provided by OSIG's reinsurer's loss rates within the retention as estimated by the actuary, and factors to include underwriting considerations, administrative expenses, claims adjustment expenses and agent commissions. Prepaid member contributions are amounts received for which coverage has not yet been provided.

**Premium deficiency:** A premium deficiency exists when the sum of expected claims costs (including an estimated liability for unreported claims) and all expected claims adjustment expenses, and coverage agreement acquisition costs exceed related unearned premiums. OSIG anticipates investment income in determining if a premium deficiency exists. At June 30, 2021 and 2020, OSIG determined no premium deficiency existed.

Classification of revenues: OSIG has classified its revenues as either operating or nonoperating revenues. Operating revenues include transactions that constitute OSIG's principal ongoing operations, such as providing coverage. Nonoperating revenues consist of other revenue sources not directly affiliated with operations, such as investment income.

Custodial credit risk—deposits: Custodial credit risk is the risk that in the event of bank failure, OSIG's cash deposits may be lost. OSIG does not have a deposit policy for custodial credit risk. As of June 30, 2021 and 2020, OSIG had fully insured cash on deposits with financial institutions of approximately \$500,000. As of June 30, 2021, approximately \$4,790,000 of OSIG's bank balance of approximately \$5,290,000 (carrying amount of approximately \$4,401,000) was uninsured and uncollateralized and therefore exposed to custodial credit risk. As of June 30, 2020, approximately \$6,405,000 of OSIG's bank balance of approximately \$6,905,000 (carrying amount of approximately \$5,953,000) was uninsured and uncollateralized and therefore exposed to custodial credit risk.

Credit risk—insurance carriers: As discussed in Note 5, OSIG utilizes reinsurance contracts to minimize its exposure on certain types of claims. Failure of the insurance carrier to honor its obligation under the insurance agreements could result in losses to OSIG. OSIG's management evaluates the financial condition of its insurance carriers to minimize its exposure to significant losses and believes the carriers presently used are financially sound and will be able to meet their contractual obligations. OSIG, through Arthur J. Gallagher, only places coverage with companies rated A-VII or better by A.M. Best, an industry- standard rating company.

#### Note 2. Investments

Custodial credit risk—investments: For an investment, custodial credit risk is the risk that OSIG will not be able to recover the value of its investments that are in the possession of its safekeeping custodians. All of OSIG's investments are held by its agent in OSIG's name. Accordingly, no investments are subject to custodial credit risk. At June 30, 2021 and 2020, OSIG held certificates of deposit with an original maturity exceeding three months, totaling \$6,815,067 and \$11,868,353, respectively. The certificates of deposits are fully insured by the Federal Deposit Insurance Corporation (FDIC).

Fair value hierarchy: OSIG categorizes its fair value measurements within the fair value hierarchy established by GASB 72. The hierarchy is based on the valuation inputs used to measure the fair value of the assets. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs, including quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets in markets that are not active, and other market corroborated inputs; Level 3 inputs are significant unobservable inputs. The categorization of investments within the hierarchy is based upon the pricing transparency of the instrument and should not be perceived as the particular investment's risk.

OSIG has the following Level 2 fair value of investments and their maturities as of June 30, 2021 are as follows:

		Investme	ent	Maturities (Ir	Yea	ars)				
Investment Type  Certificates of deposit	ent Type Fair Value		Less Than 1		1–5		6–10		More Than 10	
	\$ 6,815,067	\$ 5,405,323	\$	1,409,744	\$	3	\$	12		
U.S. Treasury bills	3,999,972	3,999,972				-		( <del>-)</del>		
Total	\$ 10,815,039	\$ 9,405,295	\$	1,409,744	\$	×.	\$			

OSIG has the following Level 2 fair value of investments and their maturities as of June 30, 2020 are as follows:

Investment Type  Certificates of deposit	Investment Maturities (In Years)							
	Fair Value	Less Than 1		1–5		6–10	More	Than 10
	\$ 11,868,353	\$ 5,239,932	\$	6,628,421	\$		\$	-
U.S. Treasury bills	2,999,350	2,999,350		<u> -</u>		14		>40
Total	\$ 14,867,703	\$ 8,239,282	\$	6,628,421	\$	- 5	\$	- 4

All investments expected to be liquidated in the next fiscal year to cover claim payments are reported as current in the accompanying statements of net position. Remaining investments are reported as noncurrent.

**Interest rate risk:** OSIG does not have a formal policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The majority of OSIG's investments are in certificates of deposit, which are subject to risks associated with rising interest rates.

Concentration of credit risk: OSIG does not have a formal policy that limits the amount of an investment into a single issuer. Exposure to concentration of credit risk is considered to exist when investments in any one issuer represent a significant percent of total investments of OSIG (any over 5% are disclosed). Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools and other pooled investments are excluded from this consideration.

#### Note 3. Administrative and Other Costs

For the years ended June 30, 2021 and 2020, the Board of Trustees contracted with Arthur J. Gallagher Risk Management Services (Gallagher) to serve as the program administrator. Under the terms of the contract with Gallagher, OSIG agreed to pay Gallagher a fee equal to 7% of member contributions for the years ended June 30, 2021 and 2020. Fees paid to Gallagher for the years ended June 30, 2021 and 2020, totaled approximately \$3,613,000 and \$3,359,000, respectively. In addition to their duties as administrator, Gallagher pays for loss control inspections, property appraisals and other risk management resources.

For the years ended June 30, 2021 and 2020, the Board of Trustees contracted with Alternative Service Concepts LLC (ASC) to be the third-party administrator responsible for claims processing. Fees paid to ASC for the years ended June 30, 2021 and 2020, totaled approximately \$719,000 and \$647,000, respectively. OSIG also pays a 10% commission independent insurance agents, which totaled approximately \$4,985,000 and \$4,094,000 for the years ended June 30, 2021 and 2020, respectively. Additionally, OSIG contracted with David Martin to serve as OSIG's executive director. Payments to David Martin for services rendered under the contract was approximately \$97,000 and \$95,000 during the years ended June 30, 2021 and 2020, respectively.

#### Note 4. Unpaid Losses and Loss Adjustment Expenses

The coverage offered by OSIG is on an occurrence basis except educators' legal liability, which is offered to members on a claims-made basis. The liability for unpaid losses and loss adjustment expenses is estimated, based upon an evaluation of reported claims and an estimate for IBNR claims. The IBNR reserve estimates expenses related to incidents which have already occurred, but have not yet been reported as a claim, and expected future development of claims already reported. The estimate is based on a study performed by an independent actuarial service with actual claims data as of June 30, 2021 and 2020.

The accuracy of these estimates cannot be determined prior to the ultimate settlement of each claim. Accordingly, the ultimate cost of settling these claims may vary significantly from the liabilities recorded at year-end and may do so in the near term.

There is a substantial liability for any additional reported claims that could be incurred by OSIG up to the maximum liability as defined under its excess reinsurance contracts.

At June 30, 2021 and 2020, the liability for unpaid losses and loss adjustment expenses excludes approximately \$88,490,000 and \$75,445,000, respectively, for unpaid claims expected to be recoverable from excess carriers.

#### **Notes to Financial Statements**

#### Note 4. Unpaid Losses and Loss Adjustment Expenses (Continued)

The following represents changes in the liability of unpaid losses and loss adjustment expenses for OSIG:

	Year Ended June 30, 2021				
	Case Reserves	IBNR	Total		
Net unpaid losses and loss adjustment	-				
expenses at beginning of year	\$ 11,752,602	\$ 3,664,000	\$ 15,416,602		
Incurred losses and loss adjustment expenses:					
Provision for insured events of the current year	13,071,457	2,549,000	15,620,457		
Change in provision for insured events					
of prior years	2,487,756	(1,694,000)	793,756		
Net incurred losses and loss adjustment expenses	15,559,213	855,000	16,414,213		
Payments:					
Losses and loss adjustment expenses attributable					
to insured events of the current year	5,244,608	0-0	5,244,608		
Losses and loss adjustment expenses attributable					
to insured events of prior years	8,589,041		8,589,041		
Net payments	13,833,649	*	13,833,649		
Unpaid losses and loss adjustment expenses at					
end of year, net of reinsurance receivable	\$ 13,478,166	\$ 4,519,000	\$ 17,997,166		

The provision for unpaid losses and loss adjustment expenses increased by approximately \$794,000 in 2021 due to unfavorable development on case-basis reserves of \$2,488,000 partially offset by expiration of IBNR risk on older policy years of \$1,694,000. The liability for unpaid losses and loss adjustment expenses at June 30, 2021 included approximately \$4,519,000 for IBNR claims.

#### Note 4. Unpaid Losses and Loss Adjustment Expenses (Continued)

	Year Ended June 30, 2020			
	Case Reserves	IBNR	Total	
Net unpaid losses and loss adjustment				
expenses at beginning of year	\$ 10,546,860	\$ 2,178,000	\$ 12,724,860	
Incurred losses and loss adjustment expenses:				
Provision for insured events of the current year Change in provision for insured events	10,818,526	2,038,000	12,856,526	
of prior years	(75,145)	(552,000)	(627,145)	
Net incurred losses and loss adjustment expenses	10,743,381	1,486,000	12,229,381	
Payments:				
Losses and loss adjustment expenses attributable				
to insured events of the current year	6,191,652	3	6,191,652	
Losses and loss adjustment expenses attributable				
to insured events of prior years	3,345,987	-	3,345,987	
Net payments	9,537,639	<u> </u>	9,537,639	
Unpaid losses and loss adjustment expenses at				
end of year, net of reinsurance receivable	\$ 11,752,602	\$ 3,664,000	\$ 15,416,602	

The provision for unpaid losses and loss adjustment expenses decreased by approximately \$627,000 in 2020 due to favorable development on case-basis reserves of \$75,000 offset by expiration of IBNR risk on older policy years of \$552,000. The liability for unpaid losses and loss adjustment expenses at June 30, 2020 included approximately \$3,664,000 for IBNR claims.

#### Note 5. Reinsurance Coverage/Structure

OSIG provides its members with property damage, automobile damage, general liability, auto liability, educators legal liability, boiler and machinery, school violent act protection, crime, and cyber liability coverages. Claims have historically been paid with funding from the annual member contributions, with claims in excess of specified thresholds covered by reinsurance coverage.

Thresholds for the years ended June 30, 2021 and 2020, were as follows:

	Per	Occurrence	Aggregate	
2021:		- 10 - 75		
Property and automobile damage	\$	250,000	*	N/A
Property and automobile damage—windstorm/hail/CAT		750,000	*	N/A
General, automobile and professional liability		100,000		5,981,589

#### **Notes to Financial Statements**

#### Note 5. Reinsurance Coverage/Structure (Continued)

	Per Occurrence			Aggregate	
2020:					
Property and automobile damage	\$	250,000	*	N/A	
Property and automobile damage—windstorm/hail		500,000	*	N/A	
General, automobile and professional liability		100,000		5,537,139	

\* Property insurance per occurrence reimbursements from reinsurers are subject to a corridor deductible of \$3,000,000. Each property claim that is not related to windstorm or hail damage in excess of \$250,000 first must satisfy the \$250,000 per occurrence threshold, with amounts over \$250,000 applied toward the corridor deductible. Each property claim related to windstorm, hail damage or CAT claims in excess of \$750,000 first must satisfy the \$750,000 per occurrence threshold, with amounts over \$750,000 applied toward the corridor deductible. No amounts are due under the agreement until the \$3,000,000 corridor deductible is satisfied.

In some instances, multiple members can be affected by the same loss event. These reinsurance thresholds are applied to the aggregate loss for these single events. The reinsurance contracts do not relieve OSIG from its obligation to its members.

Reinsurance was not utilized for either the boiler and machinery or crime coverage. Boiler and machinery coverage is 100% reinsured. The boiler and machinery reinsurance contract has a required deductible per claim of \$1,000, which is passed through to the member filing the claim. Crime coverage is self-insured by OSIG, with a maximum limit on each claim of \$10,000 and deductibles per claim of \$1,000.

During the years ended June 30, 2021 and 2020, there was a gross increase in recoverable claims cost, prior to netting cash received from reinsurers, of approximately \$71,955,000 and \$76,923,000, respectively.

#### Note 6. Commitments and Contingencies

**Legal matters:** In conducting its activities, OSIG, from time to time, is the subject of various claims arising from the ordinary course of business. OSIG reserves the underlying losses at best estimates as events transpire. In the opinion of management, the ultimate resolution of such claims is not expected to have a material adverse effect upon the financial statements of OSIG.

**COVID-19 Implications**: A pandemic, epidemic or outbreak of an infectious disease could adversely impact OSIG. Due to the evolving and highly uncertain nature of COVID-19, it currently is not possible to provide an estimate of any potential financial exposure or the indirect effect the outbreak may have on OSIG's results of operations, financial condition or liquidity. OSIG will continue to monitor the effects of COVID-19.

## **Required Supplementary Information**

#### 10-Year Loss Development

The following table illustrates how OSIG's earned member contributions and investment income (net of amounts ceded to reinsurance carriers) compare to related costs of loss (net of loss assumed by reinsurers) and other expenses assumed by OSIG as of the end of each of the last ten years. The rows of the table are defined as follows:

- (1) Total earned member contributions and investment revenues, net of costs for reinsurance.
- (2) Other administrative costs of OSIG, including overhead and claims expense not allocable to individual claims.
- (3) Incurred claims and allocated claim adjustment expenses (both paid and reserved, net of losses covered by reinsurance) as originally reported at the end of the first year in which the event that triggered coverage under the contract occurred (policy year).
- (4) Cumulative amounts paid as of the end of successive years for each policy year.
- (5) Latest reestimated amount of losses assumed by reinsurers for each policy year.
- (6) Increase or decrease in estimates of net incurred claims and allocated claim adjustment expenses for each policy year as of the end of successive years. This annual reestimation results from new information received on known claims, reevaluation of existing information on known claims, as well as emergence of new claims not previously reported.
- (7) Compares the latest reestimated incurred claims amount (line 6) and the estimate originally established (line 3). Shows whether the latest estimate of claims cost is greater or less than originally estimated. As data for individual policy years mature, the correlation between original estimates and reestimated amounts is commonly used to evaluate the accuracy of initial loss estimation methods.

(Continued)

Oklahoma Schools Insurance Group Required Supplementary Information - Schedule of Claims Development - Unaudited For the 10 Years Ended June 30, 2021 10-Year Loss Development

	2021	0000	2245	2014				4412	50.2	1,0000
(1) Premiums and investment revenue, as	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
originally reported at end of policy year:										
Earned.	\$ 51,824,44	2 \$ 43,957,816	\$ 33,625,687	\$ 26,423,157	\$ 25,536,509	\$ 23,935,709	\$ 25,003,145	\$ 24,339,336	\$ 21,853,448	\$ 22,232,030
Ceded to reinsurers	(25,321,11	9) (20,940,436)	15,352,691	11,204,265	11,652,147	10,794,487	10,588,820	11,660,027	10,626,030	12,323,603
Net earned	77,145,56	1 64,898,252	18,272,996	15,218,892	13,884,362	13,141,222	14,414,325	12,679,309	11,227,418	9,908,427
(2) Unallocated expenses, as originally										
reported at end of policy year	9,955,26	0 8,857,699	6,820,454	5,651,130	5,398,914	5,055,814	5,187,826	4,818,166	4,498,793	4,699,233
(3) Estimated losses and expenses, end of policy year:										
Incurred	42,111,00	3 49,083,889	15,673,463	14,161,187	13,551,154	8,117,000	7,628,500	5,919,500	8,073,854	8,778,575
Recoverable from reinsurers	26,490,54		5,450,063	5,424,260	4,304,154	64,000	26,500	124,500	112,854	612,425
Net Incurred	15,620,45		10,223,400	8,736,927	9,247,000	8,053,000	7,602,000	5,795,000	7,961,000	8,166,150
(4) Net paid (cumulative) as of:										
End of policy year	5,244,60	6,191,652	3,199,691	3,726,396	4,862,059	2,843,847	2,810,778	2.044.045	3,050,569	2,930,550
One year later		9,633,094	6,786,997	6,177,935	6,605,071	6,027,267	5,054,326	3,734,202	5,902,181	5,381,794
Two years later		4,444,441	6,015,997	7,213,606	8,104,624	6,947,359	6,305,373	5,080,503	6,236,599	5,949,150
Three years later			0,010,001	6,374,459	8,668,036	7,442,038	6,585,368	5,260,843	6,314,806	
Four years later				0,374,433					200	6,205,373
Five years later					7,478,666	7,704,211	7,303,736	5,287,810	6,338,490	6,264,951
Six years later						6,360,228	7,438,963	5,306,622	6,392,520	6,323,238
							6,071,184	5,379,065	6,803,392	6,426,126
Seven years later								3,980,712	6,800,990	6,426,594
Eight years later									4,401,263	6,426,814
Nine years later										5,690,868
(5) Reestimated ceded losses and expenses,										
recoverable from reinsurers	26,490,54	90,764,681	36,016,781	13,242,494	9,261,049	10,014,217	4,820,246	2,244,503	3,460,382	2,964,149
6) Reestimated net incurred losses and expenses:										
End of policy year	15,620,457	12,856,526	10,223,400	8,736,927	9,247,000	8.053.000	7,602,000	5,795,000	7,961,000	8,166,150
One year later		12,510,994	10,299,338	9,292,005	9,545,793	8,141,000	7,164,000	5,678,000	7,207,000	7,486,000
Two years later		1/462/4475-4	8,063,211	8,878,763	10,198,681	8,258,607	7,561,000	5,679,000	6,752,000	6,700,000
Three years later			0,000,017	7,469,164	10,052,386	8,243,873	7,857,981	5,535,000	6,675,000	6,466,000
Four years later				1,405,104	8,625,491	7,970,757	7,807,404	5,418,352	6,567,175	6,449,000
Five years later					0,020,491				441,040,000,000	
						6,486,893	7,919,129	5,362,177	6,501,151	6,443,489
Six years later							6,224,662	5,420,194	6,866,675	6,462,489
Seven years later								4,013,019	6,864,992	6,453,489
Eight years later									4,436,992	6,428,000
Nine years later										5,691,054
(7) (Decrease) increase in estimated net incurred										
losses and expenses from end of policy year	-	(345,532)	(2,160,189)	(1,267,763)	(621,509)	(1,566,107)	(1,377,338)	(1,781,981)	(3,524,008)	(2,475,096)
				19						



# Forecast Losses for 7/1/21-22

**Oklahoma Schools Insurance Group** 

APRIL 21, 2021

28 White Bridge Road, Suite 205 Nashville, TN 37205-1428 info@SelectActuarial.com

> 615-269-4469 SelectActuarial.com



## Loss Forecast for 7/1/21-22

## **Oklahoma Schools Insurance Group**

Report Date: April 21, 2021

**Report Notes** 

Based on data as of December 31, 2020

Prepared by

Digitally signed by Laura Sprouse, FCAS, MAAA Date: 2021-04-21 12:39:

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Section 6	Exhibits – Auto Physical Damage
Section 7	Exhibits – Property



## Section 1

## **Executive Summary**

The purpose of this report is to provide the Oklahoma Schools Insurance Group (OSIG) with an evaluation of the projected liabilities associated with its property and liability insurance programs. The specific objectives are (a) to forecast ultimate losses for the 7/1/21-22 period; and (b) to analyze the variability inherent in the forecast losses by deriving estimates at various percentiles or confidence levels. Throughout this report the term losses refers to both losses and allocated loss adjustment expenses.

The liability program will continue with a \$100,000 per occurrence retention. The results are summarized below.

Liability Program Forecast for 7/1/21-22 with \$100,000 Retention			
Total Expected Losses	\$3,910,000		
75 <sup>th</sup> Percentile Losses	\$4,333,000		
Exposure (students)	485,913		
Expected Rate	\$8.05		

The property program will change from a SIR plus corridor structure to a \$25,000 maintenance deductible with a large aggregate deductible, followed by a \$100,000 trailing deductible per occurrence, once the aggregate is reached. A separate forecast for members who purchase only automobile physical damage is shown along with the property program losses at two different aggregate limits. Also, auto physical damage claims due to over the road injuries do not erode the aggregate.

Property Program Forecast for 7/1/21-22						
	Primary Auto Physical Damage	Property with APD \$20M Aggregate	Property with APD \$25M Aggregate			
Total Expected Losses	\$124,000	\$22,941,000	\$26,852,000			
75 <sup>th</sup> Percentile Losses	\$138,000	\$23,988,000	\$28,637,000			
Exposure	1,369 vehicles	\$16.5 Billion	\$16.5 Billion			
Expected Loss Rate	\$90.26	\$0.139 per \$100	\$0.161 per \$100			
Retentions	\$100,000 Per Occurrence	\$25,000 Maintenance Deductible/\$100,000 Trailing Deductible	\$25,000 Maintenance Deductible/\$100,000 Trailing Deductible			



Tables at the end of this Executive Summary display the results of our analysis in greater detail. Table A summarizes the forecast losses, loss rate per exposure, total expected claims and expected large claims. Table B shows the aggregate distribution of the forecast losses.

### Discussion of Results

#### **Automobile Liability**

We project that OSIG will incur accident year 7/1/21-22 automobile liability losses of \$1,485,000, at a cost of \$114 per vehicle. This rate is about 8.0% less than the rate estimated in the previous actuarial report. We estimate a total of 223.9 claims with 2.7 of these claims expected to exceed \$100,000 (Exhibit 5). The total provision for large claims at the \$100,000 retention is \$267,000, which makes up about 18% of the total forecast. There is a 50% chance that losses will be less than \$1,451,000, and a 10% chance that losses will exceed \$1,944,000 (Exhibit 6).

#### **General Liability**

We project that OSIG will incur accident year 7/1/21-22 general liability losses of \$2,425,000, at a cost of \$4.99 per student. This rate is about the same as the rate estimated in the previous actuarial report. We estimate a total of 116.5 claims with 8.1 of these claims expected to exceed \$100,000 (Exhibit 5). The total provision for large claims at the \$100,000 retention is \$810,000, which makes up 33% of the total forecast. There is a 50% chance that losses will be less than \$2,360,000, and a 10% chance that losses will exceed \$3,237,000 (Exhibit 6).

#### **Auto Physical Damage**

For members that only purchase the primary APD policy, we estimate the losses within OSIG's \$100,000 retention to be \$124,000 which is a rate of \$90.26 per vehicle. We expect about 15.8 claims with an average size of \$7,800. There is a 50% probability that losses will be less than \$122,000 and a 10% probability that they could exceed \$155,000.

Most members participate in the property program which includes auto physical damage within the same limits. We have estimated that the losses included in the property forecast that are attributed to APD causes is about \$1,097,000 which is a rate of \$97.58 per vehicle.

#### **Property**

The structure of the proposed property program is different from the previous program. OSIG retains the first \$25,000 for all claims, with amounts in excess of \$25,000 applied to the aggregate. The exception is that auto physical damage claims due to over the road injuries will not erode the aggregate. The large aggregate deductible applies to all other claims regardless of size or cause of loss. Once the aggregate is reached, OSIG will have a \$100,000 trailing deductible for all claims, with the carrier picking up the losses excess of \$100,000.

We expect OSIG to incur about 327.4 claims with an average severity of \$124,000. Total expected losses before application of the insurance provisions are \$40,333,000. For any given claim, there is a 90.5%



probability that the claim will be less than \$100,000, and would be retained by OSIG, either though the aggregate retention or the trailing deductible. There is a 1.0% probability that a claim would exceed \$2,000,000, the 99<sup>th</sup> percentile and 0.1% probability that a claim could exceed \$13,800,000, the 99.9<sup>th</sup> percentile.

After applying the \$25,000 maintenance deductible, the \$20,000,000 aggregate deductible and the trailing deductible of \$100,000 we subtract the member deductibles of \$1,602,000 to get total program expected losses of \$22,941,000. There is a 25% probability that claims will be less than \$23,988,000 and a 10% probability that they could exceed \$24,559,000.

Raising the aggregate retention to \$25,000,000 also raises the expected program losses to \$26,582,000. The  $75^{th}$  percentile estimate is \$28,637,000, and the  $90^{th}$  percentile is \$29,287,000.

Automobile and General Liability (including E&O)

## Forecast Ultimate Losses for 7/1/21-22

	Autmobile Liability	General Liability	Total
Forecast Ultimate Losses	\$1,485,000	\$2,425,000	\$3,910,000
Exposure*	13,074	485,913	485,913
Cost per exposure	\$114	\$4.99	\$8.05
Per Occurrence Retention	\$100,000	\$100,000	
Forecast Claim Counts	223.9	116.5	340.4
Average Claim Size	\$6,600	\$20,800	\$11,500
Total Claims over \$100,000	2.7	8.1	10.8

<sup>\*</sup> Exposures are Vehicle for AL and Student Count for GL

## Distribution of Forecast Losses for 7/1/21-22 Assuming a \$100,000 SIR

Percentile	SIR Layer \$100,000	Layer \$900,000 xs \$100,000	Losses Limited to \$1,000,000	Losses Excess of \$1,000,000	Total Incurred Losses
20.0%	\$3,319,000	\$648,000	\$4,162,000	\$0	\$4,162,000
30.0%	\$3,512,000	\$773,000	\$4,436,000	\$0	\$4,440,000
40.0%	\$3,682,000	\$891,000	\$4,700,000	\$0	\$4,703,000
50.0%	\$3,849,000	\$1,014,000	\$4,927,000	\$0	\$4,938,000
60.0%	\$4,030,000	\$1,144,000	\$5,167,000	\$0	\$5,180,000
70.0%	\$4,224,000	\$1,296,000	\$5,457,000	\$0	\$5,479,000
75.0%	\$4,333,000	\$1,383,000	\$5,621,000	\$0	\$5,642,000
80.0%	\$4,468,000	\$1,483,000	\$5,805,000	\$0	\$5,832,000
85.0%	\$4,629,000	\$1,607,000	\$6,014,000	\$0	\$6,053,000
90.0%	\$4,853,000	\$1,773,000	\$6,306,000	\$0	\$6,342,000
95.0%	\$5,191,000	\$2,016,000	\$6,737,000	\$0	\$6,801,000
99.0%	\$5,884,000	\$2,588,000	\$7,631,000	\$680,000	\$7,759,000
Expected	\$3,910,000	\$1,085,000	\$4,995,000	\$17,000	\$5,012,000
Vehicles	13,074				
Students	485,913				
ost Per Student	\$8.05	\$2.23	\$10.28	\$0.03	\$10.31

### Forecast Ultimate Losses for 7/1/21-22

Auto Physical Damage - Primary Only Retention	\$100,000
Property with APD - Maintenance Deductible	\$25,000
Property with APD - Aggregate Retention	\$20,000,000
Property with APD - Trailing Deductible	\$100,000

	Auto Physical Damage Primary Only Members	Property/APD Program	Total (PR and APD)
Forecast Ultimate Losses	\$124,000	\$22,941,000	\$23,065,000
Exposure	1,369	\$165,080,000	
Cost per exposure*	\$90.26	\$0.139	\$0.140
Forecast Claim Counts	145.8	327.4	
Average Claim Severity	\$900	\$70,100	
V	ehicles at Program Limits	11,243	
	Rate at Program Limits	\$97.58	
APD Losses Includ	ded in Property Retention	\$1,097,000	

<sup>\*</sup> Exposures are Vehicles for APD, and \$100 TIV for Property

<sup>-</sup> Auto Physical Damage claims due to Over the Road accidents do not erode the aggregate

### Forecast Ultimate Losses for 7/1/21-22

Auto Physical Damage - Primary Only Retention	\$100,000
Property with APD - Maintenance Deductible	\$25,000
Property with APD - Aggregate Retention	\$25,000,000
Property with APD - Trailing Deductible	\$100,000

-	Auto Physical Damage Primary Only Members	Property/APD Program	Total (PR and APD)
Forecast Ultimate Losses	\$124,000	\$26,582,000	\$26,706,000
Exposure	1,369	\$165,080,000	
Cost per exposure*	\$90.26	\$0.161	\$0.162
Forecast Claim Counts	145.8	327.4	
Average Claim Severity	\$900	\$81,200	
11	ehicles at Program Limits	11,243	
V	Rate at Program Limits	\$97.58	
APD Losses Inclu	ded in Property Retention	\$1,097,000	

<sup>\*</sup> Exposures are Vehicles for APD, and \$100 TIV for Property

<sup>-</sup> Auto Physical Damage claims due to Over the Road accidents do not erode the aggregate

Oklahoma Schools Insurance Group Property with Auto Physical Damage

Table B - Property

Page 1

#### Forecast Ultimate Losses for 7/1/21-22

Maintenance Deductible Aggregate Deductible Trailing Deductible

\$25,000 \$20,000,000 \$100,000

(A) (B)		(C)	(D)	(E)	(F) Total	(G) Total Net	(H)
	Ultimate	Member	Retained	Unlimited	Program	of Member	Insured
Percentile	Claims	Deductibles	APD Losses	Losses	Losses	Deductibles	Excess
20.0%	312	\$1,388,000	\$25,000	\$26,017,000	\$24,061,000	\$22,570,000	\$1,775,000
30.0%	318	\$1,458,000	\$25,000	\$29,236,000	\$24,409,000	\$22,876,000	\$4,605,000
40.0%	323	\$1,522,000	\$50,000	\$32,444,000	\$24,694,000	\$23,121,000	\$7,531,000
50.0%	327	\$1,585,000	\$50,000	\$35,942,000	\$24,962,000	\$23,355,000	\$10,791,00
60.0%	332	\$1,650,000	\$75,000	\$40,027,000	\$25,232,000	\$23,591,000	\$14,648,00
70.0%	337	\$1,721,000	\$75,000	\$45,308,000	\$25,527,000	\$23,847,000	\$19,721,00
75.0%	340	\$1,762,000	\$75,000	\$48,615,000	\$25,688,000	\$23,988,000	\$22,950,00
80.0%	343	\$1,808,000	\$125,000	\$52,712,000	\$25,867,000	\$24,145,000	\$26,965,00
85.0%	346	\$1,863,000	\$125,000	\$57,928,000	\$26,077,000	\$24,329,000	\$32,111,00
90.0%	351	\$1,935,000	\$155,000	\$64,992,000	\$26,341,000	\$24,559,000	\$39,120,00
95.0%	358	\$2,046,000	\$155,000	\$75,935,000	\$26,721,000	\$24,890,000	\$49,930,00
99.0%	370	\$2,267,000	\$155,000	\$98,631,000	\$27,402,000	\$25,477,000	\$72,238,00
Expected	327	\$1,603,000	\$60,000	\$40,333,000	\$24,544,000	\$22,941,000	\$15,789,00
TIV in \$00s	\$165,080,000						
Rate		\$0.010		\$0.244	\$0.149	\$0,139	\$0.096

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) - Exhibit 5 (E) - Exhibit 4

<sup>(</sup>F) - Results of Monte Carlo simulation of claim frequency and severity with insurance limits applied Includes APD losses due to Over the Road accidents

<sup>(</sup>G) = (F), net of member deductibles (H) = (E) - (F)

Oklahoma Schools Insurance Group Property with Auto Physical Damage Table B - Property

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#### Forecast Ultimate Losses for 7/1/21-22

Maintenance Deductible Aggregate Deductible Trailing Deductible

\$25,000 \$25,000,000 \$100,000

(A) (B)		(C)	(D)	(E)	(F) Total	(G) Total Net	(H)
	Ultimate	Member	Retained	Unlimited	Program	of Member	Insured
Percentile	Claims	Deductibles	APD Losses	Losses	Losses	Deductibles	Excess
20.0%	312	\$1,388,000	\$25,000	\$26,017,000	\$26,017,000	\$24,546,000	\$0
30.0%	318	\$1,458,000	\$25,000	\$29,236,000	\$28,780,000	\$27,240,000	\$184,000
40.0%	323	\$1,522,000	\$50,000	\$32,444,000	\$29,233,000	\$27,660,000	\$3,019,000
50.0%	327	\$1,585,000	\$50,000	\$35,942,000	\$29,538,000	\$27,929,000	\$6,217,000
60.0%	332	\$1,650,000	\$75,000	\$40,027,000	\$29,835,000	\$28,191,000	\$10,009,000
70.0%	337	\$1,721,000	\$75,000	\$45,308,000	\$30,161,000	\$28,477,000	\$15,012,000
75.0%	340	\$1,762,000	\$75,000	\$48,615,000	\$30,346,000	\$28,637,000	\$18,203,000
80.0%	343	\$1,808,000	\$125,000	\$52,712,000	\$30,550,000	\$28,814,000	\$22,184,00
85.0%	346	\$1,863,000	\$125,000	\$57,928,000	\$30,784,000	\$29,024,000	\$27,300,00
90.0%	351	\$1,935,000	\$155,000	\$64,992,000	\$31,077,000	\$29,287,000	\$34,285,00
95.0%	358	\$2,046,000	\$155,000	\$75,935,000	\$31,502,000	\$29,668,000	\$45,087,00
99.0%	370	\$2,267,000	\$155,000	\$98,631,000	\$32,240,000	\$30,332,000	\$67,324,000
Expected	327	\$1,603,000	\$60,000	\$40,333,000	\$28,185,000	\$26,582,000	\$12,148,00
TV in \$00s	\$165,080,000						
Rate				\$0.244	\$0.171	\$0.161	\$0.074

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) - Exhibit 5 (E) - Exhibit 4

<sup>(</sup>F) - Results of Monte Carlo simulation of claim frequency and severity with insurance limits applied Includes APD losses due to Over the Road accidents

<sup>(</sup>G) = (F), net of member deductibles (H) = (E) - (F)

## Distribution of Forecast Losses for 7/1/21-22

Percentile	Members at Primary Limits	Other Members Included in Program	
20.0%	\$104,000	\$899,000	
30.0%	\$110,000	\$961,000	
40.0%	\$116,000	\$1,017,000	
50.0%	\$122,000	\$1,073,000	
60.0%.	\$128,000	\$1,132,000	
70.0%	\$135,000	\$1,198,000	
75.0%	\$138,000	\$1,236,000	
80.0%	\$143,000	\$1,281,000	
85.0%	\$148,000	\$1,334,000	
90.0%	\$155,000	\$1,404,000	
95.0%	\$166,000	\$1,516,000	
99.0%	\$189,000	\$1,749,000	
Expected	\$124,000	\$1,097,000	
Vehicles	1,369	11,243	
xpected Rate per Vehicle	\$90.26	\$97.58	

### Automobile Liability

## Distribution of Forecast Losses for 7/1/21-22 Assuming a \$100,000 SIR

Percentile	SIR Layer \$100,000	Layer \$900,000 xs \$100,000	Losses Limited to \$1,000,000	Losses Excess of \$1,000,000	Total Incurred Losses
20.0%	\$1,191,000	\$57,000	\$1,304,000	\$0	\$1,304,000
30.0%	\$1,280,000	\$90,000	\$1,424,000	\$0	\$1,424,000
40.0%	\$1,365,000	\$122,000	\$1,534,000	\$0	\$1,534,000
50.0%	\$1,451,000	\$156,000	\$1,638,000	\$0	\$1,638,000
60.0%	\$1,537,000	\$198,000	\$1,751,000	\$0	\$1,751,000
70.0%	\$1,633,000	\$243,000	\$1,870,000	\$0	\$1,870,000
75.0%	\$1,692,000	\$275,000	\$1,939,000	\$0	\$1,939,000
80.0%	\$1,754,000	\$309,000	\$2,018,000	\$0	\$2,019,000
85.0%	\$1,840,000	\$351,000	\$2,123,000	\$0	\$2,123,000
90.0%	\$1,944,000	\$409,000	\$2,245,000	\$0	\$2,245,000
95.0%	\$2,100,000	\$509,000	\$2,459,000	\$0	\$2,459,000
99.0%	\$2,495,000	\$740,000	\$2,869,000	\$0	\$2,892,000
Expected	\$1,485,000	\$195,000	\$1,680,000	\$0	\$1,680,000
Vehicles	13,074				
Students	485,913				
Cost Per Vehicle	\$114	\$15	\$128	\$0	\$128
Cost Per Student	\$3.06	\$0.40	\$3.46	\$0.00	\$3.46

Percentiles based on combined distributions for small and large losses
Aggregate small losses modeled using a lognormal distribution
Large claim size modeled using an inverse Weibull distribution
Large claim counts modeled using a Poisson Distribution

Mu = 13.98065
Sigma= 0.25000
Inverse Weibull
Tau = 3.89530
Theta = 138062.3
Poisson
Lambda = 2.68

### Distribution of Forecast Losses for 7/1/21-22 Assuming a \$100,000 SIR

Percentile	SIR Layer \$100,000	Layer \$900,000 xs \$100,000	Losses Limited to \$1,000,000	Losses Excess of \$1,000,000	Total Incurred Losses
20.0%	\$1,916,000	\$486,000	\$2,575,000	\$0	\$2,575,000
30.0%	\$2,078,000	\$595,000	\$2,815,000	\$0	\$2,817,000
40.0%	\$2,222,000	\$706,000	\$3,034,000	\$0	\$3,035,000
50.0%	\$2,360,000	\$811,000	\$3,244,000	\$0	\$3,249,000
60.0%	\$2,511,000	\$935,000	\$3,471,000	\$0	\$3,480,000
70.0%	\$2,673,000	\$1,078,000	\$3,727,000	\$0	\$3,746,000
75.0%	\$2,775,000	\$1,162,000	\$3,865,000	\$0	\$3,884,000
80.0%	\$2,896,000	\$1,264,000	\$4,025,000	\$0	\$4,048,000
85.0%	\$3,052,000	\$1,392,000	\$4,231,000	\$0	\$4,259,000
90,0%	\$3,237,000	\$1,554,000	\$4,500,000	\$0	\$4,554,000
95.0%	\$3,556,000	\$1,785,000	\$4,900,000	\$0	\$4,978,000
99.0%	\$4,224,000	\$2,322,000	\$5,740,000	\$648,000	\$5,932,000
Expected	\$2,425,000	\$890,000	\$3,315,000	\$17,000	\$3,332,000
Students	485,913				
ost Per Student	\$4.99	\$1.83	\$6.82	\$0.03	\$6.86

Percentiles based on combined distributions for small and large losses
Aggregate small losses modeled using a lognormal distribution
Large claim size modeled using an inverse Weibull distribution
Large claim counts modeled using a Poisson Distribution

Auto Physical Damage

### Distribution of Forecast Losses for 7/1/21-22

	Members at	Other Members
Percentile	Primary Limits	Unlimited
20.0%	\$104,000	\$899,000
30.0%	\$110,000	\$961,000
40.0%	\$116,000	\$1,017,000
50.0%	\$122,000	\$1,073,000
60.0%	\$128,000	\$1,132,000
70.0%	\$135,000	\$1,198,000
75.0%	\$138,000	\$1,236,000
80.0%	\$143,000	\$1,281,000
85.0%	\$148,000	\$1,334,000
90.0%	\$155,000	\$1,404,000
95.0%	\$166,000	\$1,516,000
99.0%	\$189,000	\$1,749,000
Expected	\$124,000	\$1,097,000
Vehicles	1,369	11,243
spected Rate per Vehicle	\$90.26	\$97.58
Forecast Claims	15.8	130.0
Severity	\$7,800	\$8,400

#### Forecast Ultimate Losses for 7/1/21-22

Maintenance Deductible Aggregate Deductible Trailing Deductible \$25,000 \$20,000,000 \$100,000

(A)	(B)	(C)	(D)	(E)	(F) Total	(G) Total Net	(H)
	Ultimate	Member	Retained	Unlimited	Program	of Member	Insured
Percentile	Claims	Deductibles	APD Losses	Losses	Losses	Deductibles	Excess
20.0%	312	\$1,388,000	\$25,000	\$26,017,000	\$24,061,000	\$22,570,000	\$1,775,000
30.0%	318	\$1,458,000	\$25,000	\$29,236,000	\$24,409,000	\$22,876,000	\$4,605,000
40.0%	323	\$1,522,000	\$50,000	\$32,444,000	\$24,694,000	\$23,121,000	\$7,531,000
50.0%	327	\$1,585,000	\$50,000	\$35,942,000	\$24,962,000	\$23,355,000	\$10,791,00
60.0%	332	\$1,650,000	\$75,000	\$40,027,000	\$25,232,000	\$23,591,000	\$14,648,000
70.0%	337	\$1,721,000	\$75,000	\$45,308,000	\$25,527,000	\$23,847,000	\$19,721,000
75.0%	340	\$1,762,000	\$75,000	\$48,615,000	\$25,688,000	\$23,988,000	\$22,950,00
80.0%	343	\$1,808,000	\$125,000	\$52,712,000	\$25,867,000	\$24,145,000	\$26,965,00
85.0%	346	\$1,863,000	\$125,000	\$57,928,000	\$26,077,000	\$24,329,000	\$32,111,00
90.0%	351	\$1,935,000	\$155,000	\$64,992,000	\$26,341,000	\$24,559,000	\$39,120,000
95.0%	358	\$2,046,000	\$155,000	\$75,935,000	\$26,721,000	\$24,890,000	\$49,930,000
99.0%	370	\$2,267,000	\$155,000	\$98,631,000	\$27,402,000	\$25,477,000	\$72,238,00
Expected	327	\$1,603,000	\$60,000	\$40,333,000	\$24,544,000	\$22,941,000	\$15,789,00
IV in \$00s	\$165,080,000						
Rate		\$0.010		\$0.244	\$0.149	\$0.139	\$0.096

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) - Exhibit 5 (E) - Exhibit 4

<sup>(</sup>F) - Results of Monte Carlo simulation of claim frequency and severity with insurance limits applied Includes APD losses due to Over the Road accidents

<sup>(</sup>G) = (F), net of member deductibles (H) = (E) - (F)

#### Forecast Ultimate Losses for 7/1/21-22

Maintenance Deductible Aggregate Deductible Trailing Deductible

\$25,000 \$25,000,000 \$100,000

(A) (B)		(C)	(D)	(E)	(F) Total	(G) Total Net	(H)
	Ultimate	Member	Retained	Unlimited	Program	of Member	Insured
Percentile	Claims	Deductibles	APD Losses	Losses	Losses	Deductibles	Excess
20.0%	312	\$1,388,000	\$25,000	\$26,017,000	\$26,017,000	\$24,546,000	\$0
30.0%	318	\$1,458,000	\$25,000	\$29,236,000	\$28,780,000	\$27,240,000	\$184,000
40.0%	323	\$1,522,000	\$50,000	\$32,444,000	\$29,233,000	\$27,660,000	\$3,019,000
50.0%	327	\$1,585,000	\$50,000	\$35,942,000	\$29,538,000	\$27,929,000	\$6,217,000
60.0%	332	\$1,650,000	\$75,000	\$40,027,000	\$29,835,000	\$28,191,000	\$10,009,000
70.0%	337	\$1,721,000	\$75,000	\$45,308,000	\$30,161,000	\$28,477,000	\$15,012,000
75.0%	340	\$1,762,000	\$75,000	\$48,615,000	\$30,346,000	\$28,637,000	\$18,203,000
80.0%	343	\$1,808,000	\$125,000	\$52,712,000	\$30,550,000	\$28,814,000	\$22,184,000
85.0%	346	\$1,863,000	\$125,000	\$57,928,000	\$30,784,000	\$29,024,000	\$27,300,000
90.0%	351	\$1,935,000	\$155,000	\$64,992,000	\$31,077,000	\$29,287,000	\$34,285,000
95.0%	358	\$2,046,000	\$155,000	\$75,935,000	\$31,502,000	\$29,668,000	\$45,087,000
99.0%	370	\$2,267,000	\$155,000	\$98,631,000	\$32,240,000	\$30,332,000	\$67,324,000
Expected	327	\$1,603,000	\$60,000	\$40,333,000	\$28,185,000	\$26,582,000	\$12,148,000
TIV in \$00s	\$165,080,000						
Rate				\$0,244	\$0.171	\$0.161	\$0.074

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) - Exhibit 5

<sup>(</sup>E) - Exhibit 4

<sup>(</sup>F) - Results of Monte Carlo simulation of claim frequency and severity with insurance limits applied Includes APD losses due to Over the Road accidents

<sup>(</sup>G) = (F), net of member deductibles (H) = (E) - (F)



### Section 2

### Considerations

### Background

Oklahoma Schools Insurance Group was formed in 2002 to insure the liability and property exposures for member school districts in the state of Oklahoma. The group purchases excess insurance for above a retention layer that varies by line of coverage. Arthur J. Gallagher Risk Management Services, Inc. manages OSIG. Select Actuarial Services has provided actuarial consulting services for OSIG, including loss forecasting and reserving studies since 2002.

### Scope

Select Actuarial Services has prepared this report for OSIG at the request of Jennifer McKenzie of Arthur J. Gallagher Risk Management Services, Program Manager for OSIG. The specific objectives are (a) to forecast the ultimate losses for 7/1/21-22 for property and liability; and (b) to analyze the variability inherent in the losses by deriving estimates at various percentiles or confidence levels.

This report is an actuarial analysis of data, conditions, and practices communicated as of January 26, 2021, to Select Actuarial Services as described in this report. While Select Actuarial Services believes these communications to be reliable, it has not attempted to audit the information and cannot guarantee the accuracy of any information supplied. However, the data have been reviewed for reasonableness and internal consistency, comparing the claims experience from year to year, and comparing to prior evaluations.

We have not anticipated any extraordinary changes to the social, legal and economic environment that may affect the frequency, cost or future reporting and settlement patterns of claims. In addition, our estimates do not include any provision for future claims arising out of causes not represented in the current data.

### Use and Distribution

The actuarial estimates in this report are based upon appropriate actuarial assumptions and procedures described in the section of this report entitled "Description of Exhibits." Select Actuarial Services assumes no responsibility for any loss or damage that might arise from the use of or reliance upon this report other than for the purposes set forth herein.

This report was prepared for the use of and is only to be relied upon by the management of the Oklahoma Schools Insurance Group. This report may also be provided to OSIG's auditors and insurance brokers. No portion of the report may be provided to any other party without Select Actuarial Services' prior consent. In the event that such consent is provided, the report must be provided in its entirety.



We recommend that any such party have its own actuary review this report to ensure that the party understands the assumptions and uncertainties inherent in our estimates.

### Qualifications and Standards of Practice

Laura Sprouse is a Fellow of the Casualty Actuarial Society and a Member of the American Academy of Actuaries. She meets the Qualification Standards of the American Academy of Actuaries to render actuarial opinions for property/casualty reserves. This report is prepared in accordance with Actuarial Standards of Practice No. 23, *Data Quality*, No. 41, *Actuarial Communications*, and No. 53, *Estimating Future Costs for Prospective Property/Casualty Risk Transfer and Risk Retention*.

### Coverage

OSIG began writing automobile liability, general liability, errors & omissions, auto physical damage and property coverage for member school districts in the state of Oklahoma in 2002. The Group purchases excess insurance above a retention layer which varies by coverage. This retention sits above the member deductibles, which vary by member and by year.

For the 7/1/21-22 year we are estimating the ultimate losses within a \$100,000 retention for automobile and general liability (including E&O). For Property claims we are estimating losses within an aggregate deductible of \$20,000,000 or \$25,000,000 excess of the member maintenance deductible of \$25,000, with a trailing deductible of \$100,000. In addition, OSIG will retain 100% of auto physical damage claims due to over the road accidents. OSIG's will have the benefit of all member deductibles. A few members purchase only auto physical damage coverage with primary limits of \$100,000.

#### Available Data

Loss information was provided by Jennifer McKenzie, Program Manager for OSIG. This loss information included detail loss runs as of December 31, 2020 and at prior annual evaluations. Exposure data for each member was provided and included vehicle counts, student population and total insured value.

Development is the process in which losses and claim counts for a given accident period change over time. Development is caused by late reporting of claims, case reserve changes, claims reopening, and actual payment and settlement of claims.

Ideally, a client's own patterns should be utilized whenever possible to reflect the client's unique claims administration, reporting procedures, and so forth. Since several historical valuations of the data were available, we have selected patterns based on OSIG's development, supplemented with a benchmark for Oklahoma public entities. A curve-fitting technique is used to smooth and extrapolate the observed development patterns.

### Trends and External Influences

Trends are defined as changes over time in underlying costs. Trend factors are used to adjust losses and exposure costs from past years to the level at which they would have been had they occurred during a



future period. This is vital since historical losses and exposure costs may have occurred in a different environment in terms of monetary inflation and/or benefit levels. Trends in average loss costs cannot be clearly discerned from available OSIG data. This analysis explicitly recognizes the effect of external influences upon expected claims costs. Economic inflation is measured by changes in the U.S. Claims Cost Indices as compiled by Willis Towers Watson. We have used the changes in the Consumer Price Index to measure inflation in property values.

#### **Actuarial Central Estimate**

The estimates of ultimate losses at the "expected" level in this analysis are actuarial central estimates - estimates that represent an expected value over the range of reasonably possible outcomes. Such a range of reasonably possible outcomes may not include all conceivable outcomes. For example, it would not include conceivable extreme events where the contribution of such events to an expected value estimate is not reliably measurable.

#### Loss Models

Statistical distributions are often used by the insurance industry to model the loss generating process. This technique allows for the projection of ultimate losses at the expected level and at various confidence levels or percentiles. The variation estimated in this modeling technique is the variation inherent in the historical experience; it does not include potential variation due to unanticipated changes in the environment or to misestimation of parameters.

In forecasting loss experience for 7/1/21-22 we have employed various curves and distributions to model the loss generating process. For the liability program we modeled small losses separately from large losses. Aggregate small losses for the forecast period are modeled by the lognormal probability distribution. Large claim frequencies are modeled by a Poisson distribution. The inverse Weibull distribution was used to model large claim severities. For the property program we modeled the losses using a total claim frequency and severity. A Poisson distribution was selected for frequency. Severity was modeled using a combination of a lognormal distribution and an inverse gamma distribution. We then used a Monte Carlo simulation to generate 10,000 sample years (250,000 sample years for property). The percentile estimates are derived from these outcomes. For example, 7,500 of the outcomes are below the 75<sup>th</sup> percentile, while 1,000 of the outcomes are above the 90<sup>th</sup> percentile.

### Subrogation and Recoveries

We have used data net of recoveries other than excess throughout this analysis. The effect of such recoveries is therefore implicit in our calculations and no other reductions for collateral sources other than excess insurance have been incorporated into the estimates.

#### Definitions

**Accident Period:** All of the events with occurrence dates during a period specified make up the corresponding accident period. The dollars associated with those events total the accident period's



losses, although they may be paid long after the end of the accident period. Losses are grouped by accident period throughout our analyses.

**Ultimate Losses:** The total amount that will eventually be paid on all losses for a particular accident period. Our estimate of the ultimate losses for an accident period is the sum of the paid losses, the case reserves, and the IBNR reserve.

Paid Losses: Dollars paid as of the latest available evaluation on losses incurred through the latest available evaluation.

**Case Reserves:** Reserves established on individual claims by the claims adjusters, as of the latest available evaluation. The case reserve plus the amount paid to date represents the adjuster's best estimate of the ultimate value of a particular claim.

**Reported Losses:** Paid losses plus case reserves as of the latest available evaluation.

**Loss Development:** The change in the paid losses or the reported losses over time. As more information is provided, individual claim estimates get closer and closer to the ultimate value of the claims. The increase in the total reported losses through time is the reported loss development. Similarly, as losses are paid out over time, the increase in total paid losses is the paid loss development.



### Section 3

### Description of Exhibits

### **Exhibit 1: Summary of Data**

Exhibit 1-A summarizes the number of reported claims, open claims, paid and reported losses, and exposures for each accident period evaluated as of December 31, 2020. In this Exhibit, all losses are shown gross of per occurrence retentions and net of member deductibles. The exposure data is also shown. The losses and exposures used in this forecast study are those of the current membership.

Exhibit 1-B contains a listing of large claims that are expected to exceed the forecast retentions in effect during the forecast period. These retentions vary by coverage, and by peril for property claims. The reported losses are multiplied by development and trend factors to determine which claims would exceed the retention. These trended and developed claim values are used to estimate the potential large claim experience for the forecast year.

### **Exhibit 2: Severity Distribution**

This exhibit shows the severity distribution fit to claims over \$100,000 for the liability lines and total claims for property. The claims are developed to ultimate and trended to the 7/1/21-22 level. An inverse Weibull curve was fitted to the liability claims. For property, a lognormal distribution provided a best fit for claims below \$75,000, and an inverse gamma distribution was fitted to claims greater than \$75,000. The two distributions were combined to form a single distribution. The curves assigns probabilities to various claim sizes and allows us to model the variation in the large claim experience. The percentiles of the empirical data (the trended developed claims in Exhibit 1-B) are compared to the percentiles derived from the curve.

### **Exhibit 3: Forecast Claim Counts**

Exhibit 3-A calculates the claim frequency for historical years and projects the number of claims for the 7/1/21-22 year. First the reported claims are developed to ultimate using the development factors from Appendix A. Next these ultimate claims are related to the underlying exposures, adjusted for inflation to the 7/1/21-22 level. A frequency rate is selected based on the experience of the more recent years and is multiplied by the forecast exposure to derive an estimate of the total number of claims.

For the liability lines, Exhibit 3-B estimates the ultimate number of large claims for 7/1/21-22 based on the claims in Exhibit 1-B that develop and trend over \$100,000.



### Exhibits 4 and 5: Liability

Exhibit 4 calculates the forecast small losses for the 7/1/21-22 period. In Exhibit 4-A, losses for historical accident periods below the large loss threshold are developed to ultimate and trended to the cost level of the forecast period using the trend factors from Appendix B. Losses that would exceed the forecast retention on an ultimate trended basis are removed from the reported and paid loss data. The remaining small losses are developed to ultimate using the loss development factors in Appendix A.

In Exhibit 4-B the ultimate small losses from Exhibit 4-A are compared to the underlying exposure, also trended to the forecast period. In this way, we can compare the experience of each year as if it had happened in 7/1/21-22. We also relate the ultimate small losses to the ultimate small claim counts to derive the small claim severity. The forecast small losses are determined by either selecting a loss rate to apply to the forecast exposure, or selecting the small claim severity to multiply by the forecast number of small claims.

In Exhibit 5, the small and large loss forecasts are combined to estimate the total ultimate losses for the forecast period. Large losses are capped to produce estimates of ultimate losses limited to \$100,000, \$1,000,000, as well as on an unlimited basis.

### Exhibits 4 and 5: Auto Physical Damage

Ultimate losses for auto physical damage are forecasted on an aggregate pure premium basis for losses limited to \$100,000 and unlimited. In Exhibit 4-A, claims that develop and trend over \$100,000 are subtracted from the reported losses and a provision for each claim limited to \$100,000 is added back to the developed and trended small losses. The limited ultimate losses are related to the underlying exposures to derive loss rates or pure premiums for each year. A rate is selected for the forecast year and multiplied by the exposures for those members in the primary APD program.

In Exhibit 4-B reported losses are developed to ultimate and trended to 7/1/21-22, then divided by the exposure to derive unlimited pure premiums. A rate is selected for the forecast period and applied to the exposures for the members participating in OSIG's property/APD program.

Exhibit 5 summarizes the results of the forecast.

### Exhibits 4 and 5: Property with APD

In Exhibit 4, the reported total losses, including member deductibles, are developed to ultimate and trended to the 7/1/21-22 level. The exposures, which are total insured values (TIV) are also adjusted for inflation using the Consumer Price Index. The ratio of the trended unlimited ultimate losses to the trended exposures is calculated a loss rate or pure premium. A rate is selected for the forecast period and multiplied by the forecast TIV to derive an estimate of the total unlimited losses.

An estimate of the member deductibles for 7/1/21-22 is derived in Exhibit 5 in a method analogous to Exhibit 4.



### Exhibit 6: Aggregate Loss Distribution with Percentiles

Exhibit 6 presents the results of the Monte Carlo simulation. Small and large losses for liability are modeled and the applicable deductibles are applied to estimate the expected losses and a range of percentiles.

APD losses are modeled in the aggregate using a single lognormal distribution.

An empirical distribution of annual auto physical damage losses above \$25,000 that were associated with over the road accidents was selected based on a review of the average annual losses for such claims over the last ten years.

Property losses are modeled by randomly generating the total number of claims expected, then randomly assigning a claim amount for each claim from the distribution in Exhibit 2. The insurance program is applied and member deductibles, also randomly generated based on claim size, are subtracted.

Expected losses are average values that one might expect to see if the 7/1/21-22 year were repeated multiple times. Actual losses will inevitably vary from expected losses. The results at various percentiles give an estimate of the amount of potential variation. For example, we estimate that there is a 75% probability that losses will be less than the  $75^{th}$  percentile, and a 90% probability that they won't exceed the  $90^{th}$  percentile.

### Appendix A: Loss and Claim Development Factors

Selected loss development factors are fit to an inverse power curve in Appendices A1 through A3, in order to extrapolate factors at the maturities needed. The selected factors are based on analysis in OSIG's reserves study.

### **Appendix B: Trend Factors**

Trend factors are calculated to adjust losses for inflation based on an index of countrywide claims costs.

Trend factors for insured values for property are based on the Consumer Price Index. Vehicle counts and student population are not inflation sensitive and are not adjusted.



## Section 4

## Exhibits – Automobile Liability

Exhibit 1	Summary of Data Large Loss Listing
Exhibit 2	Large Loss Severity Distribution
Exhibit 3	Forecast Total Claim Counts Forecast Large Claim Counts
Exhibit 4	Trended and Developed Small Losses Forecast Small Losses
Exhibit 5	Forecast Losses for 7/1/21-22
Exhibit 6	Aggregate Distribution of Forecast with Percentiles
Appendix A	Loss Development Factors
Appendix B	Loss Trend Factors

# Summary of Loss and Exposure Data Total Experience Net of Member Deductibles

(A)	(B)	(C)	(D) Reported	(E) Loss	(F) Loss	(G) Loss	(H)
Accident Period	Evaluation Date	Maturity (months)	NonZero Claims	and Expense Payments	and Expense Reserves	and Expense Incurred	Vehicles
7/1/10-11	12/31/2020	126	179	\$853,004	\$0	\$853,004	8,131
7/1/11-12	12/31/2020	114	168	\$871,953	\$0	\$871,953	6,286
7/1/12-13	12/31/2020	102	157	\$651,731	\$0	\$651,731	6,586
7/1/13-14	12/31/2020	90	184	\$722,774	\$0	\$722,774	7,116
7/1/14-15	12/31/2020	78	221	\$1,217,197	\$95,768	\$1,312,965	8,621
7/1/15-16	12/31/2020	66	217	\$1,063,914	\$92,596	\$1,156,510	9,085
7/1/16-17	12/31/2020	54	203	\$1,015,637	\$233,181	\$1,248,819	9,865
7/1/17-18	12/31/2020	42	166	\$621,489	\$372,673	\$994,162	9,799
7/1/18-19	12/31/2020	30	195	\$783,981	\$280,563	\$1,064,544	11,261
7/1/19-20	12/31/2020	18	190	\$895,638	\$609,875	\$1,505,513	12,613
7/1/20-21	12/31/2020	6	65	\$149,126	\$361,620	\$510,746	13,059
7/1/21-22							13,074

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

<sup>-</sup> Loss and Exposure data contains only current OSIG members as of 12/31/2020

Large Claim Listing
Claims Exceeding \$100,000 after Development and Trend

(A)	(B)	(C)	(D)	(E)	(F)	(G)
Occurrence #	Loss Date	Net Paid	Net Incurred	Severity Factor	Trend Factor	Loss After Development & Trend
90075	8/18/2010	\$134,999	\$134,999	1.000	1.405	\$189,758
P625-10-90105	8/27/2010	\$76,778	\$76,778	1.000	1.405	\$107,921
90305	12/8/2010	\$103,684	\$103,684	1.000	1.405	\$145,741
P625-11-90851	9/9/2011	\$96,221	\$96,221	1.001	1.357	\$130,662
91477	9/19/2012	\$135,786	\$135,786	1.001	1.321	\$179,461
92239	1/7/2014	\$130,707	\$130,707	1.001	1.285	\$168,171
93008	3/23/2015	\$206,102	\$206,102	1.002	1.247	\$257,592
P625-15-93019	3/26/2015	\$13,582	\$85,200	1.002	1.247	\$106,485
93063	4/20/2015	\$219,224	\$219,224	1.002	1.247	\$273,991
93397	10/10/2015	\$12,808	\$105,404	1.004	1.202	\$127,222
93477	11/19/2015	\$174,557	\$174,557	1.004	1.202	\$210,690
94052	9/29/2016	\$126,307	\$126,307	1.008	1.160	\$147,749
94363	3/23/2017	\$37,521	\$128,040	1.008	1.160	\$149,775
94907	1/30/2018	\$9,947	\$178,250	1.020	1.125	\$204,585
95622	3/8/2019	\$24,657	\$131,100	1.062	1.093	\$152,255
P625-19-96065	10/2/2019	\$90,750	\$90,750	1.127	1.064	\$108,841
96137	10/29/2019	\$2,905	\$293,000	1.127	1.064	\$351,409
96204	11/15/2019	\$120,601	\$120,601	1.127	1.064	\$144,643
P625-19-96206	11/15/2019	\$30,379	\$110,379	1.127	1.064	\$132,382
96766	10/29/2020	\$0	\$128,000	1.127	1.032	\$148,889

\$1,747,517 \$2,775,091

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

Automobile Liability

### Fitted Large Claim Distribution Claims Developed and Trended over \$100,000

	Inverse Weibull Distribution			
	Tau =	3.89530		
	Theta =	138,062.32		
Percentile	Observed	Fitted		
5%	\$107,849	\$108,551		
10%	\$108,749	\$114,441		
15%	\$124,465	\$119,572		
20%	\$129,974	\$124,322		
25%	\$131,952	\$128,883		
30%	\$140,965	\$133,443		
35%	\$145,357	\$138,194		
40%	\$146,946	\$142,944		
45%	\$148,376	\$147,885		
50%	\$149,332	\$153,205		
55%	\$150,891	\$159,096		
60%	\$158,621	\$165,557		
65%	\$172,123	\$172,967		
70%	\$182,550	\$181,518		
75%	\$193,465	\$191,779		
80%	\$205,806	\$204,510		
85%	\$217,725	\$221,802		
90%	\$259,232	\$248,025		
95%	\$277,862	\$298,190		
99%	\$336,700	\$453,245		
Expected	\$171,911	\$172,749		
Limited to \$100,000		\$100,000		
Limited to \$1,000,000		\$173,000		
Unlimited		\$173,000		

### **Automobile Liability**

### **Projected Total Claim Frequency**

(A)	(B) Number of	(C)	(D)	(E)	(F)	(G)	(H) Frequency
Accident	Nonzero		Ultimate	Exposures	Exposure	Trended	per 1,000
Period	Claims	CCDF	Claims	(Vehicles)	Trend	Exposures	Vehicles
7/1/10-11	179	1.000	179.0	8,131	1.000	8,131	22.0
7/1/11-12	168	1.000	168.0	6,286	1.000	6,286	26.7
7/1/12-13	157	1.000	157.0	6,586	1.000	6,586	23.8
7/1/13-14	184	1.000	184.0	7,116	1.000	7,116	25.9
7/1/14-15	221	1.000	221.0	8,621	1.000	8,621	25.6
7/1/15-16	217	1.000	217.0	9,085	1.000	9,085	23.9
7/1/16-17	203	1.000	203.0	9,865	1.000	9,865	20.6
7/1/17-18	166	1.000	166.0	9,799	1.000	9,799	16.9
7/1/18-19	195	1.000	195.0	11,261	1.000	11,261	17.3
7/1/19-20	190	1.002	190.3	12,613	1.000	12,613	15.1
7/1/20-21	65	2.003	130.2	13,059	1.000	13,059	10.0
Total	1,945		2,010.5	102,421		102,421	19.6

	7/1/20-21	7/1/21-22
(I) Selected Frequency	17.1	17.1
(J) Forecast Exposure	13,059	13,074
(K) Forecast Total Claims	223.7	223.9
L) Expected % Unreported	50.1%	

177.0

(M) Ultimate Claims

<sup>(</sup>B) - Exhibit 1-A

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) - (B) \* (C)

<sup>(</sup>E), (J) = Exhibit 1-A

<sup>(</sup>F) - no trend for vehicle counts

<sup>(</sup>G) = (E) \* (F)

<sup>(</sup>H) = (D) / (G)

<sup>(</sup>I) = Average of 17-18 and 18-19

<sup>(</sup>K) = (I) \* (J)

### Projected Large Claim Frequency Claims Exceeding \$100,000 per Occurrence

(A)	(B) Number of	(C)	(D)	(E)	(F) Frequency
Accident	Claims		Ultimate	Trended	per 1,000
Period	>\$100,000	CCDF	Claims	Exposures	Vehicles
7/1/10-11	3	1.000	3.0	8,131	0.37
7/1/11-12	1	1.000	1.0	6,286	0.16
7/1/12-13	1	1.000	1.0	6,586	0.15
7/1/13-14	1	1.000	1.0	7,116	0.14
7/1/14-15	3	1.000	3.0	8,621	0.35
7/1/15-16	2	1.000	2.0	9,085	0.22
7/1/16-17	2	1.000	2.0	9,865	0.20
7/1/17-18	1	1.000	1.0	9,799	0.10
7/1/18-19	1	1.000	1.0	11,261	0.09
7/1/19-20	4	1.002	4.0	12,613	0.32
7/1/20-21	1	2.003	2.0	13,059	0.15
Total	20		21.0	102,421	0.21
				7/1/20-21	7/1/21-22
		(G) Selec	cted Frequency	0.20	0.20
		(H) For	ecast Exposure	13,059	13,074
	(I) Forecas	st Number o	f Large Claims	2.1	2.7

(J) Forecast Number of Small Claims

174.9

221.3

<sup>(</sup>B) - Exhibit 1-B

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) - (B) \* (C)

<sup>(</sup>E) = Exhibit 3-A

<sup>(</sup>F) = (D) / (E) \* 1,000

<sup>(</sup>G) = All years average

<sup>(</sup>H) - Exhibit 1-A

<sup>(1) = (</sup>G) \* (H)

<sup>(</sup>J) = (K), Exhibit 3-A - (I)

Automobile Liability

### Estimation of Ultimate Small Losses At the Forecast Loss Level

	(A)	(B) Reported	(C) Trend	(D) Reported	(E) Ultimate
Accident	Reported	on Large	Factor to	Develop.	on Small
Period	Losses	Losses	7/1/21-22	Factor	Claims
7/1/10-11	\$853,004	\$315,462	1.405	1.000	\$755,581
7/1/11-12	\$871,953	\$96,221	1.357	1.001	\$1,053,387
7/1/12-13	\$651,731	\$135,786	1.321	1.001	\$681,894
7/1/13-14	\$722,774	\$130,707	1.285	1.001	\$761,766
7/1/14-15	\$1,312,965	\$510,526	1.247	1.002	\$1,002,907
7/1/15-16	\$1,156,510	\$279,961	1.202	1.004	\$1,057,991
7/1/16-17	\$1,248,819	\$254,347	1.160	1.008	\$1,163,290
7/1/17-18	\$994,162	\$178,250	1.125	1.020	\$936,455
7/1/18-19	\$1,064,544	\$131,100	1.093	1.062	\$1,084,067
7/1/19-20	\$1,505,513	\$614,729	1.064	1.129	\$1,070,075
7/1/20-21	\$510,746	\$128,000	1.032	2.258	\$891,845
Total	\$10,892,721	\$2,775,091			\$10,459,258

	(F)	(G) Paid	(H) Trend	(I) Paid	(J) Ultimate
Accident	Paid	on Large	Factor to	Develop.	on Small
Period	Losses	Losses	7/1/21-22	Factor	Claims
7/1/10-11	\$853,004	\$315,462	1.405	1.001	\$755,836
7/1/11-12	\$871,953	\$96,221	1.357	1.001	\$1,054,205
7/1/12-13	\$651,731	\$135,786	1.321	1.003	\$683,046
7/1/13-14	\$722,774	\$130,707	1.285	1.005	\$764,520
7/1/14-15	\$1,217,197	\$438,909	1.247	1.010	\$980,258
7/1/15-16	\$1,063,914	\$187,366	1.202	1.021	\$1,075,757
7/1/16-17	\$1,015,637	\$163,828	1.160	1.046	\$1,033,276
7/1/17-18	\$621,489	\$9,947	1.125	1.104	\$759,639
7/1/18-19	\$783,981	\$24,657	1.093	1.249	\$1,036,412
7/1/19-20	\$895,638	\$244,634	1.064	1.629	\$1,128,169
7/1/20-21	\$149,126	\$0	1.032	4.628	\$712,171
Total	\$8,846,444	\$1,747,517			\$9,983,289

<sup>(</sup>A) and (F) - Exhibit 1-A

<sup>(</sup>B) and (G) - Exhibit 1-B

<sup>(</sup>C) and (H) - Appendix B

<sup>(</sup>D) - Appenidx A1

<sup>(</sup>E) = [(A) - (B)] \* (C) \* (D)

<sup>(</sup>I) - Appendix A2

<sup>(</sup>J) = [(F) - (G)] \* (H) \* (I)

### Calculation of Forecast Ultimate Losses for 7/1/21-22 Less than \$100,000 per Occurrence

(A)	(B) Trended	(C) Ultmate	(D) Small	(E)	(F) Small	(F) Loss Rate
Accident	Ultimate	Small		Trended		
Period	12.12/11.12/22		Claim		Loss	Limited to
Perioa	Losses	Claims	Severity	Exposures	Rate	\$100,000
7/1/10-11	\$756,000	176.0	\$4,300	8,131	\$93	\$130
7/1/11-12	\$1,054,000	167.0	\$6,300	6,286	\$168	\$184
7/1/12-13	\$682,000	156.0	\$4,400	6,586	\$104	\$119
7/1/13-14	\$763,000	183.0	\$4,200	7,116	\$107	\$121
7/1/14-15	\$992,000	218.0	\$4,600	8,621	\$115	\$150
7/1/15-16	\$1,067,000	215.0	\$5,000	9,085	\$117	\$139
7/1/16-17	\$1,098,000	201.0	\$5,500	9,865	\$111	\$132
7/1/17-18	\$848,000	165.0	\$5,100	9,799	\$87	\$97
7/1/18-19	\$1,060,000	194.0	\$5,500	11,261	\$94	\$103
7/1/19-20	\$1,099,000	186.3	\$5,900	12,613	\$87	\$119
7/1/20-21	\$802,000	128.2	\$6,300	13,059	\$61	\$69
Total	\$10,221,000	1,989.5	\$5,100	102,421	\$100	\$119
				7/1/20-21	7/1/21-22	
	(G) Selected Sr	nall Loss Seve	rity	\$5,300	\$5,500	
	(H) Forecast Sr	nall Claim Cou	ınts	174.9	221.3	
	(I) Forecast Sm	all Losses		\$927,000	\$1,217,000	
	(J) Exposures			13,059	13,074	
	(K) Forecast Sm	all Loss Rate		\$71	\$93	

<sup>(</sup>B) - Average of Columns (E) and (J)

<sup>(</sup>C) - Difference in Column (C) from Exhibits 3-A and 3-B

<sup>(</sup>D) = (B) / (C)

<sup>(</sup>E) - Exhibit 1-A

<sup>(</sup>F) = (B) / (E)

<sup>(</sup>G) - Average of 16-17 through 19-20

<sup>(</sup>H) - Exhibit 3-B

<sup>(1) = (</sup>G) \* (H)

<sup>(</sup>J) - Exhibit 1-A

<sup>(</sup>K) = (I) / (J)

### Forecast Ultimate Losses for 7/1/21-22 Total Experience Net of Member Deductibles

		7/1/20-21	7/1/21-22
(1) Forecast Sm	nall Losses	\$927,000	\$1,217,000
{Exhibit 4			
(2) Forecast Nu {Exhibit 3	Imber of Claims over \$100,000 -B}	2.1	2.7
(3) Expected Se { Exhibit 2	verity of Losses over \$100,000: 2 }		
	Limited to \$100,000	\$100,000	\$100,000
	Limited to \$1,000,000	\$168,000	\$173,000
	Unlimited	\$168,000	\$173,000
(4) Projected To			
{ Line(1) + [	Line(2) * Line (3)] }		
	Limited to \$100,000	\$1,139,000	\$1,485,000
	Limited to \$1,000,000	\$1,283,000	\$1,680,000
	Unlimited	\$1,283,000	\$1,680,000
(5) Forecast Ve	hicle Counts	13,059	13,074
(6) Projected Co			
{ Line (4) / L		18.1	
	Limited to \$100,000	\$87	\$114
	Limited to \$1,000,000	\$98	\$128
	Unlimited	\$98	\$128
(7) Projected to { Exhibit 3-A		177.0	223.9
(8) Average Sev	verity { Line (4) / Line (7) }		
	Limited to \$100,000	\$6,400	\$6,600
	77 70 70 42 424 424	¢7.200	
	Limited to \$1,000,000	\$7,200	\$7,500

Automobile Liability

### Distribution of Forecast Losses for 7/1/21-22 Assuming a \$100,000 SIR

Percentile	SIR Layer \$100,000	Layer \$900,000 xs \$100,000	Losses Limited to \$1,000,000	Losses Excess of \$1,000,000	Total Incurred Losses
20.0%	\$1,191,000	\$57,000	\$1,304,000	\$0	\$1,304,000
30.0%	\$1,280,000	\$90,000	\$1,424,000	\$0	\$1,424,000
40.0%	\$1,365,000	\$122,000	\$1,534,000	\$0	\$1,534,000
50.0%	\$1,451,000	\$156,000	\$1,638,000	\$0	\$1,638,000
60.0%	\$1,537,000	\$198,000	\$1,751,000	\$0	\$1,751,000
70.0%	\$1,633,000	\$243,000	\$1,870,000	\$0	\$1,870,000
75.0%	\$1,692,000	\$275,000	\$1,939,000	\$0	\$1,939,000
80.0%	\$1,754,000	\$309,000	\$2,018,000	\$0	\$2,019,000
85.0%	\$1,840,000	\$351,000	\$2,123,000	\$0	\$2,123,000
90.0%	\$1,944,000	\$409,000	\$2,245,000	\$0	\$2,245,000
95.0%	\$2,100,000	\$509,000	\$2,459,000	\$0	\$2,459,000
99.0%	\$2,495,000	\$740,000	\$2,869,000	\$0	\$2,892,000
Expected	\$1,485,000	\$195,000	\$1,680,000	\$0	\$1,680,000
Vehicles	13,074				
Students	485,913				
Cost Per Vehicle	\$114	\$15	\$128	\$0	\$128
Cost Per Student	\$3.06	\$0.40	\$3.46	\$0.00	\$3.46

Percentiles based on combined distributions for small and large losses
Aggregate small losses modeled using a lognormal distribution
Large claim size modeled using an inverse Weibull distribution
Large claim counts modeled using a Poisson Distribution

Mu = 13.98065
Sigma= 0.25000
Inverse Weibull
Tau = 3.89530
Theta = 138062.3
Poisson
Lambda = 2.68

**Automobile Liability** 

# Estimation of Cumulative Reported Loss Development Factors Using "The Method of Least Squares"

Curve:  $Y = A(1/(X+C))^B + 1$  (Modified Inverse Power Curve)

		Tra	nsformed \	alues for l	Regression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	х	Cumulative Factor Y
	1 9						126	1.000
24	1.127	-3.3673	-2.0658	11.339	4.2675	6.9562	114	1.001
36	1.037	-3.7136	-3.3001	13.791	10.8904	12.2550	102	1.001
48	1.011	-3.9703	-4.5067	15.763	20.3102	17.8928	90	1.001
60	1.006	-4.1744	-5.1152	17.426	26.1649	21.3527	78	1.002
							66	1.004
							54	1.008
							42	1.020
							30	1.062
							18	1.129
							6	2.258
	Sum	-15.2255	-14.9877	58.3180	61.6329	58.4567		
Av	erage	-3.8064	-3.7469	14.5795	15.4082	14.6142		

N =	4		
A =	5.900E+04		
B =	3.870	R^2 =	0.99509
C =	5		

<sup>\* -</sup> Appendix A4 from IBNR Study

# Estimation of Cumulative Paid Loss Development Factors Using "The Method of Least Squares"

Curve:  $Y = A(1/(X+C))^B + 1$  (Modified Inverse Power Curve)

		Tra	nsformed	Values for F	Regression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	х	Cumulative Factor Y
12	2.027	-5.1761	0.0262	26.793	0.0007	-0.1358	126	1.001
24	1.394	-5.2417	-0.9306	27.476	0.8660	4.8779	114	1.001
36	1.154	-5.3033	-1.8700	28.125	3.4969	9.9172	102	1.003
48	1.071	-5.3613	-2.6393	28.743	6.9661	14.1503	90	1.005
60	1.030	-5.4161	-3.4999	29.334	12.2494	18.9559	78	1.010
						1.0000	66	1.021
							54	1.046
							42	1.104
							30	1.249
						- 1	18	1.629
							6	4.628
9	Sum	-26.4986	-8.9136	140.4711	23.5791	47.7655		
Av	erage	-5.2997	-1.7827	28.0942	4.7158	9.5531		

N =	5		
A =	7.323E+32		
B =	14.615	R^2 =	0.99956
C =	165		

<sup>\* -</sup> Appendix A5 from IBNR Study

### Automobile Liability

# Estimation of Cumulative Reported Claim Development Factors Using "The Method of Least Squares"

Curve:  $Y = A(1/(X+C))^B + 1$  (Modified Inverse Power Curve)

de Comp		Tra	nsformed \	/alues for F	Regression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	х	Cumulative Factor Y
12	1.002					1	126	1.000
24	1.002						114	1.000
							102	1.000
							90	1.000
							78	1.000
	/ //						66	1.000
							54	1.000
							42	1.000
		)					30	1.000
							18	1.002
						91	6	2.003
5	Sum	0.0000	0.0000	0.0000	0.0000	0.0000		
Av	erage	0.0000	0.0000	0.0000	0.0000	0.0000		

N =	2		
A =			
B =		R^2 =	
C =	0		

<sup>\* -</sup> Appendix A6 from IBNR study

U.S. Claims Cost Index Automobile Liability

(A)	(B)	(C) Annual	(D)	(E)	(F) Trend Factor
		Percent	Accident	Interpolated	to
Year	Index	Increase	Period	Index	7/1/21-22
2005	100.0				
2006	104.3	4.3%			
2007	109.2	4.7%			
2008	113.7	4.0%			
2009	119.4	5.0%			
2010	123.5	3.5%			
2011	128.3	3.9%	7/1/10-11	125.9	1.405
2012	132.4	3.2%	7/1/11-12	130.4	1.357
2013	135.6	2.4%	7/1/12-13	134.0	1.321
2014	139.8	3.1%	7/1/13-14	137.7	1.285
2015	143.9	2.9%	7/1/14-15	141.9	1.247
2016	150.4	4.5%	7/1/15-16	147.2	1.202
2017	154.6	2.8%	7/1/16-17	152.5	1.160
2018	159.9	3.4%	7/1/17-18	157.2	1.125
2019	163.8	2.5%	7/1/18-19	161.8	1.093
2020	168.8	3.0%	7/1/19-20	166.3	1.064
2021*	174.2	3.2%	7/1/20-21	171.5	1.032
2022*	179.7	3.2%	7/1/21-22	176.9	1.000

<sup>(</sup>B) and (C) - Willis Towers Watson Claim Cost Index, willistowerswatson.com Jeremy Pecora and Emily Thompson, September 9, 2020

<sup>\* 2021</sup> Estimated based on average of last six years

<sup>(</sup>E) - Linear interpolation of column (B)

<sup>(</sup>F) - [(E), forecast period] / [(E), current period]



## Section 5

### Exhibits – General Liability

Exhibit 1	Summary of Data Large Loss Listing
Exhibit 2	Large Loss Severity Distribution
Exhibit 3	Forecast Total Claim Counts Forecast Large Claim Counts
Exhibit 4	Trended and Developed Small Losses Forecast Small Losses
Exhibit 5	Forecast Losses for 7/1/21-22
Exhibit 6	Aggregate Distribution of Forecast with Percentiles
Appendix A	Loss Development Factors
Appendix B	Loss Trend Factors

# Summary of Loss and Exposure Data Total Experience Net of Member Deductibles

(A)	(B)	(C)	(D) Reported	(E) Loss	(F) Loss	(G) Loss	(H)
Accident Period	Evaluation Date	Maturity (months)	NonZero Claims	and Expense Payments	and Expense Reserves	and Expense Incurred	Students
7/1/10-11	12/31/2020	126	107	\$2,261,935	\$16,851	\$2,278,786	329,896
7/1/11-12	12/31/2020	114	81	\$3,304,050	\$0	\$3,304,050	291,458
7/1/12-13	12/31/2020	102	109	\$676,161	\$35,349	\$711,510	270,724
7/1/13-14	12/31/2020	90	85	\$882,277	\$41,036	\$923,313	313,502
7/1/14-15	12/31/2020	78	115	\$2,100,639	\$109,481	\$2,210,120	367,551
7/1/15-16	12/31/2020	66	119	\$1,859,289	\$50,280	\$1,909,569	368,608
7/1/16-17	12/31/2020	54	131	\$2,883,553	\$588,701	\$3,472,255	380,503
7/1/17-18	12/31/2020	42	77	\$809,903	\$1,119,383	\$1,929,286	372,123
7/1/18-19	12/31/2020	30	112	\$582,791	\$2,221,698	\$2,804,489	427,871
7/1/19-20	12/31/2020	18	95	\$138,511	\$1,390,041	\$1,528,552	472,188
7/1/20-21	12/31/2020	6	48	\$57,898	\$797,635	\$855,533	485,913
7/1/21-22							485,913

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

<sup>-</sup> Loss and Exposure data contains only current OSIG members as of 12/31/2020

Large Claim Listing
Claims Exceeding \$100,000 after Development and Trend

(A)	(B)	(C)	(D)	(E)	(F)	(G) Loss After
				Severity	Trend	Developmen
Occurrence #	Loss Date	Net Paid	Net Incurred	Factor	Factor	& Trend
90054	7/29/2010	\$117,074	\$117,074	1.000	1.385	\$162,209
P625-10-90080	8/19/2010	\$94,545	\$94,545	1.000	1.385	\$130,994
90084	8/22/2010	\$115,615	\$115,615	1.000	1.385	\$160,187
90118	9/1/2010	\$136,645	\$136,645	1.000	1.385	\$189,324
90205	10/14/2010	\$123,444	\$123,444	1.000	1.385	\$171,033
90236	10/25/2010	\$290,942	\$290,942	1.000	1.385	\$403,104
90297	12/6/2010	\$162,221	\$162,221	1.000	1.385	\$224,759
90313	12/14/2010	\$106,663	\$106,663	1.000	1.385	\$147,784
P625-11-90589	1/4/2011	\$72,819	\$72,819	1.000	1.385	\$100,892
90519	3/11/2011	\$122,502	\$122,502	1.000	1.385	\$169,729
90838	6/30/2011	\$280,047	\$280,047	1.000	1.385	\$388,010
P625-11-91010	8/25/2011	\$84,730	\$84,730	1,000	1,339	\$113,523
91394	9/1/2011	\$149,418	\$149,418	1.000	1.339	\$200,193
91388	10/25/2011	\$443,010	\$443,010	1.000	1.339	\$593,554
P625-11-90962	10/26/2011	\$95,962	\$95,962	1.000	1.339	\$128,572
P625-11-90991	10/28/2011	\$97,912	\$97,912	1.000	1.339	\$131,184
91040	11/11/2011	\$1,708,795	\$1,708,795	1.000	1.339	\$2,289,478
91564	5/28/2012	\$210,533	\$210,533	1.000	1.339	\$282,077
92222	12/23/2013	\$150,266	\$150,266	1.001	1.269	\$190,910
92382	1/29/2014	\$100,352	\$100,352	1.001	1.269	\$127,494
92492	4/1/2014	\$66,964	\$108,000	1.001	1.269	\$137,212
92867	4/4/2014	\$176,221	\$176,221	1.001	1.269	\$223,885
92975	9/1/2014	\$113,715	\$142,500	1.003	1.234	\$176,486
92999	3/2/2015	\$240,862	\$240,862	1.003	1.234	\$298,308
P625-15-93000	3/11/2015	\$83,728	\$83,728	1.003	1.234	\$103,697
93289	3/22/2015	\$211,827	\$211,827	1.003	1.234	\$262,348
P625-15-93028	3/22/2015	\$87,019	\$87,019	1.003	1.234	\$107,773
94241	4/16/2015	\$366,221	\$366,221	1.003	1.234	\$453,565
93143	5/15/2015	\$141,576	\$141,576	1.003	1.234	\$175,342
P625-15-93609	12/3/2015	\$93,180	\$93,180	1.008	1.196	\$112,404
93680	3/7/2016	\$185,028	\$185,028	1.008	1.196	\$223,202
94063	3/24/2016	\$153,730	\$153,730	1.008	1.196	\$185,447
94446	5/5/2016	\$167,801	\$167,801	1.008	1.196	\$202,421
P625-16-93885	7/8/2016	\$94,128	\$94,128	1.021	1.158	\$111,288
P625-16-94009	9/13/2016	\$92,961	\$92,961	1.021	1.158	\$109,908
P625-16-94168	11/3/2016	\$100,630	\$100,630	1.021	1.158	\$118,974
94291	12/16/2016	\$146,328	\$146,328	1.021	1.158	\$173,004
P625-17-94450	1/26/2017	\$53,482	\$87,000	1.021	1.158	\$102,860
94280	1/27/2017	\$1,325,161	\$1,325,161	1.021	1.158	\$1,566,735
P625-17-94491	5/17/2017	\$87,382	\$87,382	1.021	1.158	\$103,312
95484	6/26/2017	\$68,381	\$160,000	1.021	1.158	\$189,168
P625-17-94689	8/9/2017	\$14,477	\$93,000	1.053	1.124	\$110,005
96032	9/12/2017	\$69,399	\$160,000	1.053	1.124	\$189,256
95106	9/14/2017	\$23,759	\$141,500	1.053	1.124	\$167,373
P625-17-95154	12/1/2017	\$66,550	\$95,000	1.053	1.124	\$112,371

Large Claim Listing
Claims Exceeding \$100,000 after Development and Trend

(A)	(B)	(C)	(D)	(E)	(F)	(G) Loss After
				Severity	Trend	Developmen
Occurrence #	Loss Date	Net Paid	Net Incurred	Factor	Factor	& Trend
95506	1/11/2018	\$12,887	\$167,582	1.053	1.124	\$198,225
94898	1/25/2018	\$85,804	\$119,000	1.053	1.124	\$140,759
P625-18-95394	1/25/2018	\$66,787	\$96,000	1.053	1.124	\$113,554
P625-18-95168	3/2/2018	\$41,094	\$95,958	1.053	1.124	\$113,505
95055	5/3/2018	\$9,913	\$117,850	1.053	1.124	\$139,399
95249	5/15/2018	\$103,313	\$316,301	1.053	1.124	\$374,137
95302	7/25/2018	\$17,101	\$111,500	1.136	1.092	\$138,218
95270	9/4/2018	\$30,929	\$112,333	1.136	1.092	\$139,250
95512	9/29/2018	\$25,909	\$196,000	1.136	1.092	\$242,965
96372	2/20/2019	\$19,103	\$111,729	1.136	1.092	\$138,501
96369	3/14/2019	\$16,392	\$801,668	1.136	1.092	\$993,763
96161	3/15/2019	\$6,165	\$127,000	1.136	1.092	\$157,432
95837	4/29/2019	\$37,812	\$107,200	1.136	1.092	\$132,887
P625-19-96141	4/29/2019	\$9,778	\$85,000	1.136	1.092	\$105,368
96788	12/4/2019	\$0	\$128,000	1.350	1.061	\$183,354
96285	12/5/2019	\$0	\$128,000	1.350	1.061	\$183,354
P625-19-96281	11/22/2019	\$0	\$70,000	1.350	1.061	\$100,272
P625-20-96661	8/27/2020	\$11,776	\$90,000	1.648	1.030	\$152,862
96736	10/6/2020	\$0	\$128,000	1.648	1.030	\$217,403
96723	10/12/2020	\$0	\$138,500	1.648	1.030	\$235,237
P625-20-96762	10/27/2020	\$7,068	\$75,000	1.648	1.030	\$127,385

\$9,395,837 \$12,726,900

\$16,349,184

<sup>(</sup>A) through (D) - Provided by Jennifer McKenzie, Arthur J. Gallagher Risk Services

<sup>(</sup>E) = RLDF / CCDF

<sup>(</sup>F) - Appendix B

<sup>(</sup>G) = (D) \* (E) \* (F)

General Liability

## Fitted Large Claim Distribution Claims Developed and Trended over \$100,000

Inverse Weibull Distribution Tau = 2.74503 Theta = 145,256.2 Percentile Observed **Fitted** 5% \$103,408 \$108,551 10% \$108,841 \$115,772 15% \$112,100 \$122,422 20% \$113,523 \$128,693 25% \$127,412 \$135,154 30% \$131,089 \$141,614 35% \$137,967 \$148,455 40% \$139,399 \$155,486 45% \$154,005 \$163,086 50% \$164,791 \$171,447 55% \$172,511 \$180,758 \$191,019 60% \$183,354 65% \$189,190 \$202,990 70% \$194,568 \$217,242 75% \$213,658 \$234,723 80% \$224,759 \$257,336 85% \$267,280 \$288,689 90% \$381,074 \$337,714 95% \$558,557 \$438,804 99% \$1,819,695 \$794,329 Expected \$247,715 \$211,807 Limited to \$100,000 \$100,000 Limited to \$1,000,000 \$210,000

Unlimited

\$212,000

### **Projected Total Claim Frequency**

(A)	(B) Number of	(C)	(D)	(E)	(F)	(G)	(H) Frequency
Accident	Nonzero		Ultimate	Exposures	Exposure	Trended	per 1,000
Period	Claims	CCDF	Claims	(Students)	Trend	Exposures	Students
7/1/10-11	107	1.000	107.0	329,896	1.000	329,896	0.32
7/1/11-12	81	1.000	81.0	291,458	1.000	291,458	0.28
7/1/12-13	109	1.000	109.0	270,724	1.000	270,724	0.40
7/1/13-14	85	1.000	85.0	313,502	1.000	313,502	0.27
7/1/14-15	115	1.000	115.0	367,551	1.000	367,551	0.31
7/1/15-16	119	1.000	119.0	368,608	1.000	368,608	0.32
7/1/16-17	131	1.000	131.0	380,503	1.000	380,503	0.34
7/1/17-18	77	1.000	77.0	372,123	1.000	372,123	0.21
7/1/18-19	112	1.002	112.2	427,871	1.000	427,871	0.26
7/1/19-20	95	1.011	96.1	472,188	1.000	472,188	0.20
7/1/20-21	48	2.150	103.2	485,913	1.000	485,913	0.21
Total	1,079		1,135.5	4,080,337		4,080,337	0.28

	7/1/21-22
(I) Selected Frequency	0.24
(J) Forecast Exposure	485,913
(K) Forecast Total Claims	116.5

<sup>(</sup>B) - Exhibit 1-A

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) - (B) \* (C)

<sup>(</sup>E) = Exhibit 1-A

<sup>(</sup>F) - no trend for student population

<sup>(</sup>G) = (E) \* (F)

<sup>(</sup>H)=(D)/(G)

<sup>(</sup>I) = Same as Prior

<sup>(</sup>J) - Exhibit 1-A

<sup>(</sup>K) = (I) \* (J)

General Liability

### Projected Large Claim Frequency Claims Exceeding \$100,000 per Occurrence

(A)	(B) Number of	(C)	(D)	(E)	(F) Frequency
Accident	Claims		Ultimate	Trended	per 1,000
Period	>\$100,000	CCDF	Claims	Exposures	Students
7/1/10-11	11	1.000	11.0	329,896	0.033
7/1/11-12	7	1.000	7.0	291,458	0.024
7/1/12-13	0	1.000	0.0	270,724	0.000
7/1/13-14	4	1.000	4.0	313,502	0.013
7/1/14-15	7	1.000	7.0	367,551	0.019
7/1/15-16	4	1.000	4.0	368,608	0.011
7/1/16-17	8	1.000	8.0	380,503	0.021
7/1/17-18	10	1.000	10.0	372,123	0.027
7/1/18-19	8	1.002	8.0	427,871	0.019
7/1/19-20	3	1.011	3.0	472,188	0.006
7/1/20-21	4	2.150	8.6	485,913	0.018
Total	66		70.7	4,080,337	0.017

	7/1/21-22
(G) Selected Frequency	0.017
(H) Forecast Exposure	485,913
(I) Forecast Number of Large Claims	8.1
(J) Forecast Number of Small Claims	108.4

<sup>(</sup>B) - Exhibit 1-B

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) - (B) \* (C)

<sup>(</sup>E) = Exhibit 3-A

<sup>(</sup>F) = (D) / (E) \* 1,000

<sup>(</sup>G) = Average of 11-12 through 18-19

<sup>(</sup>H) - Exhibit 1-A

<sup>(1) = (</sup>G) \* (H)

<sup>(</sup>J) = (K) from Exhibit 3-A - (I)

### Estimation of Ultimate Small Losses At the Forecast Loss Level

Accident	(A) Reported	(B) Reported on Large	(C) Trend Factor to	(D) Reported Develop.	(E) Ultimate on Small
Period	Losses	Losses	7/1/21-22	Factor	Claims
7/1/10-11	\$2,278,786	\$1,622,518	1.385	1.000	\$909,000
7/1/11-12	\$3,304,050	\$2,790,361	1.339	1.000	\$688,000
7/1/12-13	\$711,510	\$0	1.302	1.001	\$927,000
7/1/13-14	\$923,313	\$534,838	1.269	1.001	\$494,000
7/1/14-15	\$2,210,120	\$1,273,733	1.234	1.003	\$1,160,000
7/1/15-16	\$1,909,569	\$599,739	1.196	1.008	\$1,580,000
7/1/16-17	\$3,472,255	\$2,093,590	1.158	1.021	\$1,630,000
7/1/17-18	\$1,929,286	\$1,402,191	1.124	1.053	\$624,000
7/1/18-19	\$2,804,489	\$1,652,429	1.092	1.138	\$1,430,000
7/1/19-20	\$1,528,552	\$326,000	1.061	1.365	\$1,742,000
7/1/20-21	\$855,533	\$431,500	1.030	3.544	\$1,548,000
Total	\$21,927,462	\$12,726,900	_		\$12,732,00

	(F)	(G) Paid	(H) Trend	(I) Paid	(J) Ultimate
Accident	Paid	on Large	Factor to	Develop.	on Small
Period	Losses	Losses	7/1/21-22	Factor	Claims
7/1/10-11	\$2,261,935	\$1,622,518	1.385	1.001	\$886,000
7/1/11-12	\$3,304,050	\$2,790,361	1.339	1.001	\$689,000
7/1/12-13	\$676,161	\$0	1.302	1.003	\$883,000
7/1/13-14	\$882,277	\$493,802	1.269	1.007	\$496,000
7/1/14-15	\$2,100,639	\$1,244,948	1.234	1.016	\$1,073,00
7/1/15-16	\$1,859,289	\$599,739	1.196	1.042	\$1,570,000
7/1/16-17	\$2,883,553	\$1,968,454	1.158	1.118	\$1,185,00
7/1/17-18	\$809,903	\$493,983	1.124	1.369	\$486,000
7/1/18-19	\$582,791	\$163,188	1.092	2.305	\$1,056,000
7/1/19-20	\$138,511	\$0	1.061	6.374	\$937,000
7/1/20-21	\$57,898	\$18,844	1.030	37.181	\$1,496,000
Total	\$15,557,007	\$9,395,837			\$10,757,00

<sup>(</sup>A) and (F) - Exhibit 1-A

<sup>(</sup>B) and (G) - Exhibit 1-B

<sup>(</sup>C) and (H) - Appendix B

<sup>(</sup>D) - Appenidx A1

<sup>(</sup>E) = [(A) - (B)] \* (C) \* (D)

<sup>(</sup>I) - Appendix A2

<sup>(</sup>J) = [(F) - (G)] \* (H) \* (I)

### Calculation of Forecast Ultimate Losses for 7/1/21-22 Less than \$100,000 per Occurrence

(A)	(B)	(C)	(D)	(E)	(F)	(F)
	Trended	Ultmate	Small			Loss Rate
Accident	Ultimate	Small	Claim	Trended	Small Loss	Limited to
Period	Losses	Claims	Severity	Exposures	Rate	\$100,000
7/1/10-11	\$898,000	96.0	\$9,400	329,896	\$2.72	\$6.06
7/1/11-12	\$689,000	74.0	\$9,300	291,458	\$2.36	\$4.77
7/1/12-13	\$905,000	109.0	\$8,300	270,724	\$3.34	\$3.34
7/1/13-14	\$495,000	81.0	\$6,100	313,502	\$1.58	\$2.85
7/1/14-15	\$1,117,000	108.0	\$10,300	367,551	\$3.04	\$4.94
7/1/15-16	\$1,575,000	115.0	\$13,700	368,608	\$4.27	\$5.36
7/1/16-17	\$1,630,000	123.0	\$13,300	380,503	\$4.28	\$6.39
7/1/17-18	\$624,000	67.0	\$9,300	372,123	\$1.68	\$4.36
7/1/18-19	\$1,430,000	104.2	\$13,700	427,871	\$3.34	\$5.21
7/1/19-20	\$1,742,000	93.1	\$18,700	472,188	\$3.69	\$4.32
7/1/20-21	\$1,548,000	94.6	\$16,400	485,913	\$3.19	\$4.01
Total	\$12,653,000	1,064.9	\$11,900	4,080,337	\$3.10	\$4.72
					7/1/21-22	
	(G) Forecast Sn	nall Loss Rate			\$3.32	
	(H) Exposure				485,913	
	(I) Forecast Sn	nall Losses			\$1,615,000	

(J) Forecast Small Claim Counts

(K) Forecast Small Claim Severity

108.4

\$14,900

<sup>(</sup>B) - Average of Columns (E) and (J) through 14-15, (E) for other years

<sup>(</sup>C) - Difference in Column (C) from Exhibits 3-A and 3-B

<sup>(</sup>D) = (B) / (C)

<sup>(</sup>E) - Exhibit 1-A

<sup>(</sup>F) = (B) / (E)

<sup>(</sup>G) - Average of 14-15 through 18-19

<sup>(</sup>H) - Exhibit 3-B

<sup>(1) = (</sup>G) \* (H)

<sup>(</sup>J) - Exhibit 3-B

<sup>(</sup>K) = (I) / (J)

General Liability

### Forecast Ultimate Losses for 7/1/21-22 **Total Experience Net of Member Deductibles**

	7/1/21-22
(1) Forecast Small Losses	\$1,615,000
{Exhibit 4-B}	
(2) Forecast Number of Claims over \$100,000	8.1
{Exhibit 3-B}	
(3) Expected Severity of Losses over \$100,000:	
{ Exhibit 2 }	
Limited to \$100,000	\$100,000
Limited to \$1,000,000	\$210,000
Unlimited	\$212,000
(4) Projected Total Losses	
{ Line(1) + [Line(2) * Line (3)] }	
Limited to \$100,000	\$2,425,000
Limited to \$1,000,000	\$3,315,000
Unlimited	\$3,332,000
(5) Forecast Student Population	485,913
(6) Projected Cost per Student	
{ Line (4) / Line (5) }	
Limited to \$100,000	\$4.99
Limited to \$1,000,000	\$6.82
Unlimited	\$6.86
7) Projected Total Claims	116.5
Exhibit 3-A }	
(8) Average Severity { Line (4) / Line (7) }	
Limited to \$100,000	\$20,800
Limited to \$1,000,000	\$28,500
Unlimited	\$28,600

### Distribution of Forecast Losses for 7/1/21-22 Assuming a \$100,000 SIR

Percentile	SIR Layer \$100,000	Layer \$900,000 xs \$100,000	Losses Limited to \$1,000,000	Losses Excess of \$1,000,000	Total Incurred Losses
20.0%	\$1,916,000	\$486,000	\$2,575,000	\$0	\$2,575,000
30.0%	\$2,078,000	\$595,000	\$2,815,000	\$0	\$2,817,000
40.0%	\$2,222,000	\$706,000	\$3,034,000	\$0	\$3,035,000
50.0%	\$2,360,000	\$811,000	\$3,244,000	\$0	\$3,249,000
60.0%	\$2,511,000	\$935,000	\$3,471,000	\$0	\$3,480,000
70.0%	\$2,673,000	\$1,078,000	\$3,727,000	\$0	\$3,746,000
75.0%	\$2,775,000	\$1,162,000	\$3,865,000	\$0	\$3,884,000
80.0%	\$2,896,000	\$1,264,000	\$4,025,000	\$0	\$4,048,000
85.0%	\$3,052,000	\$1,392,000	\$4,231,000	\$0	\$4,259,000
90.0%	\$3,237,000	\$1,554,000	\$4,500,000	\$0	\$4,554,000
95.0%	\$3,556,000	\$1,785,000	\$4,900,000	\$0	\$4,978,000
99.0%	\$4,224,000	\$2,322,000	\$5,740,000	\$648,000	\$5,932,000
Expected	\$2,425,000	\$890,000	\$3,315,000	\$17,000	\$3,332,000
Students	485,913				
ost Per Student	\$4.99	\$1.83	\$6.82	\$0.03	\$6.86

Percentiles based on combined distributions for small and large losses
Aggregate small losses modeled using a lognormal distribution
Large claim size modeled using an inverse Weibull distribution
Large claim counts modeled using a Poisson Distribution

# Estimation of Cumulative Reported Loss Development Factors Using "The Method of Least Squares"

		Tra	nsformed \	Values for R	Regression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y
12	1.618	-6.2383	-0,4805	38.917	0.2309	2.9973	126	1.000
24	1.211	-6.2615	-1.5548	39.206	2.4173	9.7352	114	1.000
36	1.089	-6.2841	-2.4233	39.490	5.8725	15.2286	102	1.001
48	1.030	-6.3063	-3.4974	39.769	12.2319	22.0556	90	1.001
60	1.015	-6.3279	-4.1964	40.043	17.6096	26.5544	78	1.003
72	1.005	-6.3491	-5.2983	40.312	28.0722	33.6398	66	1.008
							54	1.021
							42	1.053
							30	1.138
							18	1.365
							6	3.544
5	Sum	-37.7673	-17.4507	237.7368	66.4343	110.2108		
Av	erage	-6.2946	-2.9084	39.6228	11.0724	18.3685		

N =	6		
A =	2.322E+115		
B =	42.664	R^2 =	0.99771
C =	500		

<sup>\* -</sup> Appendix A4 from IBNR Study

# Estimation of Cumulative Paid Loss Development Factors Using "The Method of Least Squares"

		Tra	nsformed \	Values for R	Regression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y
12	13.257	-4.4773	2.5061	20.047	6.2805	-11.2206	126	1.001
24	3.417	-4.6052	0.8826	21.208	0.7789	-4.0644	114	1.001
36	1.632	-4.7185	-0.4584	22.264	0.2101	2.1629	102	1.003
48	1.249	-4.8203	-1.3886	23.235	1.9281	6.6933	90	1.007
60	1.056	-4.9127	-2.8788	24.134	8.2872	14.1423	78	1.016
72	1.028	-4.9972	-3.5752	24.972	12.7821	17.8661	66	1.042
84	1.012	-5.0752	-4.4315	25.757	19.6378	22.4904	54	1.118
96	1.004	-5.1475	-5.5661	26.497	30.9811	28.6513	42	1.369
						1.00	30	2.305
	I						18	6.374
							6	37.181
S	Sum	-38.7538	-14.9098	188.1139	80.8860	76.7213		
Av	erage	-4.8442	-1.8637	23.5142	10.1107	9.5902		

=	8		
=	9.468E+23		
=	11.781	R^2 =	0.99732
=	76		

<sup>\* -</sup> Appendix A5 from IBNR Study

## **General Liability**

## **Estimation of Cumulative Reported Claim Development Factors** Using "The Method of Least Squares"

7.10		Tra	nsformed \	/alues for I	Regression	- 1	Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y
12	1.038	-3.5553	-3.2715	12.640	10.7025	11.6312	126	1.000
24	1.004	-3.8501	-5.5052	14.824	30.3070	21.1957	114	1.000
36	1.001	-4.0775	-7.2296	16.626	52.2673	29.4790	102	1.000
		7.74					90	1.000
		}					78	1.000
							66	1.000
							54	1.000
	1						42	1.000
							30	1.002
							18	1.011
		. –					6	2.150
	Sum	-11.4830	-16.0063	44.0904	93.2768	62.3060		
Av	erage	-3.8277	-5.3354	14.6968	31.0923	20.7687		

N =	3		
A =	1.919E+10		1
B =	7.580	R^2 =	1.00000
C =	23		

<sup>\* -</sup> Appendix A6 from IBNR study

U.S. Claims Cost Index General Liability

(A)	(B)	(C)	(D)	(E)	(F)
					Trend
		Annual			Factor
		Percent	Accident	Interpolated	to
Year	Index	Increase	Period	Index	7/1/21-22
2005	100.0				
2006	104.4	4.4%			
2007	109.0	4.5%			
2008	113.2	3.8%			
2009	115.7	2.3%			
2010	118.4	2.3%			
2011	122.8	3.7%	7/1/10-11	120.6	1.385
2012	126.7	3.2%	7/1/11-12	124.7	1.339
2013	129.9	2.5%	7/1/12-13	128.3	1.302
2014	133.5	2.8%	7/1/13-14	131.7	1.269
2015	137.2	2.8%	7/1/14-15	135.3	1.234
2016	142.1	3.6%	7/1/15-16	139.6	1.196
2017	146.4	3.0%	7/1/16-17	144.2	1.158
2018	150.9	3.1%	7/1/17-18	148.7	1.124
2019	155.2	2.8%	7/1/18-19	153.0	1.092
2020	159.7	2.9%	7/1/19-20	157.4	1,061
2021*	164.6	3.0%	7/1/20-21	162.1	1.030
2022*	169.6	3.0%	7/1/21-22	167.1	1.000

<sup>(</sup>B) and (C) - Willis Towers Watson Claim Cost Index, willistowerswatson.com Jeremy Pecora and Emily Thompson, September 9, 2020 2021 Estimated based on average of last six years

<sup>(</sup>E) - Linear interpolation of (B)

<sup>(</sup>F) = (E, forecast period) / (E)



# Section 6

# Exhibits – Auto Physical Damage

Exhibit 1	Summary of Data Large Loss Listing
Exhibit 2	NA
Exhibit 3	Forecast Total Claim Counts
Exhibit 4	Forecast Losses Limited to \$100,000 Forecast Unlimited Losses
Exhibit 5	Forecast Losses for 7/1/21-22
Exhibit 6	Aggregate Distribution of Forecast with Percentiles
Appendix A	Loss Development Factors
Appendix B	Loss Trend Factors

### Summary of Loss and Exposure Data Total Experience Net of Member Deductibles

(A)	(B)	(C)	(D) Reported	(E)	(F)	(G) Expense	(H) Expense	(I) Total Loss	(1)
Accident	Evaluation	Maturity	NonZero	Losses	Loss	& Legal	& Legal	and Expenses	
Period	Date	(months)	Claims	Paid	Reserves	Paid	Reserves	Incurred	Vehicles
7/1/10-11	12/31/2020	126	95	\$452,378	\$0	\$13,212	\$0	\$465,590	7,176
7/1/11-12	12/31/2020	114	83	\$449,529	\$0	\$24,283	\$0	\$473,811	7,842
7/1/12-13	12/31/2020	102	79	\$499,643	\$0	\$25,067	\$0	\$524,710	6,769
7/1/13-14	12/31/2020	90	68	\$465,193	\$0	\$20,671	\$0	\$485,864	5,999
7/1/14-15	12/31/2020	78	111	\$692,138	\$0	\$36,947	\$0	\$729,085	6,591
7/1/15-16	12/31/2020	66	94	\$417,675	\$1,001	\$37,003	\$2,203	\$457,882	8,327
7/1/16-17	12/31/2020	54	110	\$640,403	\$1,000	\$39,849	\$2,744	\$683,996	8,658
7/1/17-18	12/31/2020	42	109	\$899,794	\$1,000	\$56,339	\$31	\$957,164	9,425
7/1/18-19	12/31/2020	30	117	\$586,373	\$5,631	\$62,058	\$32,363	\$686,425	9,633
7/1/19-20	12/31/2020	18	133	\$1,012,817	\$12,720	\$62,934	\$18,434	\$1,106,905	12,117
7/1/20-21	12/31/2020	6	60	\$386,357	\$169,511	\$13,999	\$3,804	\$573,671	12,612
7/1/21-22									12,612
			1059	\$6,502,300	\$190,863	\$392,360	\$59,579	\$7,145,103	

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

<sup>-</sup> Loss and Exposure data contains only current OSIG members as of 12/31/2020

Large Claim Listing
Claims Exceeding \$100,000 after Development and Trend

(A)	(B)	(C)	(D)	(G)		(H)
Occurrence #	Loss Date	Net Paid Loss & ALAE	Net Incurred Loss & ALAE	Severity Factor	Trend Factor	Trended Ultimate Claim
0050	5/22/2011	\$92,221	\$92,221	1.000	1.228	\$113,306
91392	7/14/2012	\$89,430	\$89,430	1.001	1.205	\$107,843
92831	12/3/2014	\$129,683	\$129,683	1.002	1.166	\$151,572
94879	1/11/2018	\$318,916	\$318,916	1.023	1.110	\$362,140
P625-19-95984	8/29/2019	\$94,843	\$94,843	1.114	1.048	\$110,662
0079	4/21/2020	\$162,961	\$162,961	1.114	1.048	\$190,142
		\$888.053	\$888.053			

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

## Projected Total Claim Frequency

(A)	(B) Number of	(C)	(D)	(E)	(F)	(G)	(H) Frequency
Accident	Nonzero		Ultimate	Exposures	Exposure	Trended	per 1,000
Period	Claims	CCDF	Claims	(Vehicles)	Trend	Exposures	Vehicles
7/1/10-11	95	1.000	95.0	7,176	1.000	7,176	13.2
7/1/11-12	83	1.000	83.0	7,842	1.000	7,842	10.6
7/1/12-13	79	1.000	79.0	6,769	1.000	6,769	11.7
7/1/13-14	68	1.000	68.0	5,999	1.000	5,999	11.3
7/1/14-15	111	1.000	111.0	6,591	1.000	6,591	16.8
7/1/15-16	94	1.000	94.0	8,327	1.000	8,327	11.3
7/1/16-17	110	1.000	110.0	8,658	1.000	8,658	12.7
7/1/17-18	109	1.000	109.0	9,425	1.000	9,425	11.6
7/1/18-19	117	1.000	117.0	9,633	1.000	9,633	12.1
7/1/19-20	133	1.000	133.0	12,117	1.000	12,117	11.0
7/1/20-21	60	2.167	130.0	12,612	1.000	12,612	10.3
Total	1,059		1,129.0	95,149		95,149	11.9

	7/1/21-22
(I) Selected Frequency	11.6
(J) Forecast Exposure	12,612
Primary Only Members	1,369
Property Program Members	11,243
(K) Forecast Total Claims	145.8
Primary Only Members	15.8
Property Program Members	130.0

<sup>(</sup>B) - Exhibit 1-A

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) - (B) \* (C)

<sup>(</sup>E) and (J) = Exhibit 1-A

<sup>(</sup>F) - no trend for vehicle counts

<sup>(</sup>G) = (E) \* (F)

<sup>(</sup>H) = (D) / (G) \*1000

<sup>(</sup>I) = average of 17-18 through 19-20

<sup>(</sup>K) = (I) \* (J) / 1000

# Estimation of Forecast Losses for 7/1/21-22 Members at Primary Limit of \$100,000 per Occurrence

(A)	(B)	(C)	(E) Trend	(F) Reported	Ultimate	Provision	(G) Ultimate	(H)	(I) Limited
Accident Period	Reported Losses	Large Losses	Factor to 7/1/21-22	Develop. Factor	Small Losses	For Large Losses	Limited Losses	Vehicles	Loss Rate
Periou	Losses	Losses	1/1/21-22	ructor	Losses	Losses	Losses	venicies	Kate
7/1/10-11	\$465,590	\$92,221	1.228	1.000	\$458,737	\$100,000	\$558,737	7,176	\$77.86
7/1/11-12	\$473,811	\$0	1.215	1.000	\$575,627	\$0	\$575,627	7,842	\$73.40
7/1/12-13	\$524,710	\$89,430	1.205	1.001	\$524,901	\$100,000	\$624,901	6,769	\$92.32
7/1/13-14	\$485,864	\$0	1.187	1.001	\$577,263	\$0	\$577,263	5,999	\$96.23
7/1/14-15	\$729,085	\$129,683	1.166	1.002	\$700,578	\$100,000	\$800,578	6,591	\$121.46
7/1/15-16	\$457,882	\$0	1.146	1.005	\$527,297	\$0	\$527,297	8,327	\$63.32
7/1/16-17	\$683,996	\$0	1.129	1.011	\$780,454	\$0	\$780,454	8,658	\$90.15
7/1/17-18	\$957,164	\$318,916	1.110	1.023	\$724,751	\$100,000	\$824,751	9,425	\$87.51
7/1/18-19	\$686,425	\$0	1.080	1.050	\$778,663	\$0	\$778,663	9,633	\$80.84
7/1/19-20	\$1,106,905	\$257,804	1.048	1.114	\$990,727	\$200,000	\$1,190,727	12,117	\$98.27
7/1/20-21	\$573,671	\$0	1.022	2.426	\$1,422,332	\$0	\$1,422,332	12,612	\$112.78
Total	\$7,145,103	\$888,053			\$8,061,331	\$600,000	\$8,661,331	95,149	\$91.03

(J) Selected Loss Rate \$90.26

(K) Forecast Vehicle Count 1,369

(L) Forecast Uitimate Losses \$124,000

(A) - Exhibit 1-A

(B) - Exhibit 1-B

(C) = (A) - (B)

(D) - Appenidx B

(E) - Appendix A1

(G) = (D) \* (E) \* (F)

(H) and (K) - Exhibit 1-A

(1) = (G) / (H)

(J) = Average of 14-15 through 19-20

(L) = (J) \* (K)

# Estimation of Forecast Losses for 7/1/21-22 All Other Members Unlimited Losses

(A)	(B)	(C)	(E) Trend	(F) Reported	Ultimate	Provision	(G) Ultimate	(H)	(1)
Accident	Reported	Large	Factor to	Develop.	Small	For Large	Limited		Loss
Period	Losses	Losses	7/1/21-22	Factor	Losses	Losses	Losses	Vehicles	Rate
7/1/10-11	\$465,590	\$0	1.228	1.000	\$572,043	\$0	\$572,043	7,176	\$79.71
7/1/11-12	\$473,811	\$0	1.215	1.000	\$575,627	\$0	\$575,627	7,842	\$73.40
7/1/12-13	\$524,710	\$0	1.205	1.001	\$632,744	\$0	\$632,744	6,769	\$93.48
7/1/13-14	\$485,864	\$0	1.187	1.001	\$577,263	\$0	\$577,263	5,999	\$96.23
7/1/14-15	\$729,085	\$0	1.166	1.002	\$852,151	\$0	\$852,151	6,591	\$129.29
7/1/15-16	\$457,882	\$0	1.146	1.005	\$527,297	\$0	\$527,297	8,327	\$63.32
7/1/16-17	\$683,996	\$0	1.129	1.011	\$780,454	\$0	\$780,454	8,658	\$90.15
7/1/17-18	\$957,164	\$0	1.110	1.023	\$1,086,891	\$0	\$1,086,891	9,425	\$115.32
7/1/18-19	\$686,425	\$0	1.080	1.050	\$778,663	\$0	\$778,663	9,633	\$80.84
7/1/19-20	\$1,106,905	\$0	1.048	1.114	\$1,291,531	\$0	\$1,291,531	12,117	\$106.59
7/1/20-21	\$573,671	\$0	1.022	2.426	\$1,422,332	\$0	\$1,422,332	12,612	\$112.78
Total	\$7,145,103	\$0			\$9,096,996	\$0	\$9,096,996	95,149	\$95.61

(J) Selected Loss Rate \$97.58

(K) Forecast Vehicle Count 11,243

(L) Forecast Uitimate Losses \$1,097,000

- (A) Exhibit 1-A
- (B) Exhibit 1-B
- (C) = (A) (B)
- (D) Appenidx B
- (E) Appendix A1
- (G) = (D) \* (E) \* (F)
- (H) and (K) Exhibit 1-A
- (1) = (G) / (H)
- (J) = Average of 14-15 through 19-20
- (L) = (J) \* (K)

## Forecast Ultimate Losses for 7/1/21-22 Total Experience Net of Member Deductibles

	(A)	(B)	(C)
	Vehicles	Forecast Loss Rate	Ultimate Losses
Primary Limits of \$100,000	1,369	\$90.26	\$124,000
Unlimited	11,243	\$97.58	\$1,097,000
Total Forecast for 7/1/20-21	12,612	\$96.81	\$1,221,000

<sup>(</sup>A) - Provided by OSIG

<sup>(</sup>B) - Exhibit 4

<sup>(</sup>C) = (A) \* (B)

## Distribution of Forecast Losses for 7/1/21-22

	Members at	Other Members
Percentile	Primary Limits	Unlimited
20.0%	\$104,000	\$899,000
30.0%	\$110,000	\$961,000
40.0%	\$116,000	\$1,017,000
50.0%	\$122,000	\$1,073,000
60.0%	\$128,000	\$1,132,000
70.0%	\$135,000	\$1,198,000
75.0%	\$138,000	\$1,236,000
80.0%	\$143,000	\$1,281,000
85.0%	\$148,000	\$1,334,000
90.0%	\$155,000	\$1,404,000
95.0%	\$166,000	\$1,516,000
99.0%	\$189,000	\$1,749,000
Expected	\$124,000	\$1,097,000
Vehicles	1,369	11,243
xpected Rate per Vehicle	\$90.26	\$97.58
Forecast Claims	15.8	130.0
Severity	\$7,800	\$8,400

# Estimation of Cumulative Reported Loss Development Factors Using "The Method of Least Squares"

		Tra	nsformed \	/alues for R	egression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	х	Cumulative Factor Y
12	1.177	-5.8916	-1.7311	34.711	2.9968	10.1992	126	1.000
24	1.069	-5.9243	-2.6675	35.097	7.1156	15.8031	114	1.000
36	1.037	-5.9558	-3.3001	35.472	10.8910	19.6551	102	1.001
48	1.015	-5.9865	-4.1964	35.838	17.6096	25.1214	90	1.001
		4.7.0				200	78	1.002
							66	1.005
							54	1.011
							42	1.023
							30	1.050
							18	1.114
							6	2.426
	Sum	-23.7582	-11.8952	141.1179	38.6130	70.7788		
Av	erage	-5.9395	-2.9738	35.2795	9.6533	17.6947		

N =	4		
A =	1.743E+64		4
B =	25.405	R^2 =	0.99505
C =	350		

<sup>\* -</sup> Appendix A4 from IBNR Study

# Estimation of Cumulative Reported Claim Development Factors Using "The Method of Least Squares"

		Tra	nsformed \	alues for F	Regression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y
12	1.000						126	1.000
24	1.000						114	1.000
							102	1.000
	3.11						90	1.000
							78	1.000
	14						66	1.000
							54	1.000
						N.	42	1.000
							30	1.000
							18	1.000
						_ 11	6	2.167
	Sum	0.0000	0.0000	0.0000	0.0000	0.0000		
Av	erage	0.0000	0.0000	0.0000	0.0000	0.0000		

N =	2	
A =		
B =		R^2 =
C =	0	

<sup>\* -</sup> Appendix A6 from IBNR study

U.S. Claims Cost Index Auto Physical Damage

(A)	(B)	(C) Annual	(D)	(E)	(F) Trend Factor
		Percent	Accident	Interpolated	to
Year	Index	Increase	Period	Index	7/1/21-22
2005	100.0				
2006	102.4	2.4%			
2007	105.1	2.7%			
2008	107.9	2.6%			
2009	118.2	9.6%			
2010	120.3	1.7%			
2011	122.6	1.9%	7/1/10-11	121.4	1.228
2012	123.1	0.4%	7/1/11-12	122.8	1.215
2013	124.5	1.2%	7/1/12-13	123.8	1.205
2014	126.9	1.9%	7/1/13-14	125.7	1.187
2015	129.0	1.6%	7/1/14-15	127.9	1.166
2016	131.4	1.9%	7/1/15-16	130.2	1.146
2017	132.8	1.1%	7/1/16-17	132.1	1.129
2018	135.9	2.3%	7/1/17-18	134.4	1.110
2019	140.3	3.3%	7/1/18-19	138.1	1.080
2020	144.4	2.9%	7/1/19-20	142.4	1.048
2021*	147.6	2.2%	7/1/20-21	146.0	1.022
2022*	150.8	2.2%	7/1/21-22	149.2	1.000

<sup>(</sup>B) and (C) - Willis Towers Watson Claim Cost Index, willistowerswatson.com Jeremy Pecora and Emily Thompson, September 9, 2020 \*2021 Estimated based on average of last six years

<sup>(</sup>E) - Linear interpolation of column (B)

<sup>(</sup>F) - [(E), forecast period] / [(E), current period]



# Section 7

# Exhibits – Property with APD

Exhibit 1	Summary of Data
Exhibit 2	Claim Severity Distribution
Exhibit 3	Forecast Total Claim Counts
Exhibit 4	Forecast Total Losses for 7/1/21-22
Exhibit 5	Forecast Member Deductibles for 7/1/21-22
Exhibit 6	Aggregate Distribution of Forecast with Percentiles
Appendix A	Loss Development Factors
Appendix B	Loss Trend Factors
	Exposure Trend Factors

### Summary of Loss and Exposure Data Total Experience Net of Member Deductibles

(A)	(B)	(C)	(D) Reported	(E)	(F) Total Net	(G)	(H) Total net	(I) Gross of	(J) Total
Accident	Evaluation	Maturity	NonZero	Member	Paid Losses	Case	Incurred Losses	Member	Insured Value
Period	Date	(months)	Claims	Deductibles	& Expenses	Reserves	& Expenses	Deductibles	in \$100s
7/1/05-06	12/31/2020	186	171	\$536,000	\$2,822,883	\$0	\$2,822,883	\$3,358,883	\$45,372,745
7/1/06-07	12/31/2020	174	210	\$1,145,000	\$5,424,180	\$0	\$5,424,180	\$6,569,180	\$57,370,353
7/1/07-08	12/31/2020	162	220	\$1,122,500	\$27,248,717	\$0	\$27,248,717	\$28,371,217	\$62,925,938
7/1/08-09	12/31/2020	150	183	\$1,049,000	\$13,254,298	\$0	\$13,254,298	\$14,303,298	\$66,426,354
7/1/09-10	12/31/2020	138	236	\$1,079,000	\$16,098,237	\$0	\$16,098,237	\$17,177,237	\$70,400,877
7/1/10-11	12/31/2020	126	210	\$943,000	\$24,317,661	\$0	\$24,317,661	\$25,260,661	\$74,175,355
7/1/11-12	12/31/2020	114	160	\$462,000	\$3,739,202	\$0	\$3,739,202	\$4,201,202	\$69,686,902
7/1/12-13	12/31/2020	102	152	\$729,500	\$5,579,422	\$0	\$5,579,422	\$6,308,922	\$62,594,433
7/1/13-14	12/31/2020	90	151	\$285,000	\$4,569,014	\$0	\$4,569,014	\$4,854,014	\$68,701,308
7/1/14-15	12/31/2020	78	196	\$801,500	\$7,006,691	\$597,734	\$7,604,425	\$8,405,925	\$78,210,987
7/1/15-16	12/31/2020	66	168	\$612,000	\$13,088,323	\$1,435,854	\$14,524,177	\$15,136,177	\$79,094,269
7/1/16-17	12/31/2020	54	217	\$1,061,000	\$9,124,585	\$1,631,509	\$10,756,094	\$11,817,094	\$90,180,374
7/1/17-18	12/31/2020	42	187	\$574,500	\$15,213,203	\$7,093,152	\$22,306,355	\$22,880,855	\$88,680,169
7/1/18-19	12/31/2020	30	217	\$1,012,500	\$26,074,218	\$6,809,954	\$32,884,172	\$33,896,672	\$117,640,96
7/1/19-20	12/31/2020	18	223	\$1,086,000	\$35,172,103	\$41,276,467	\$76,448,570	\$77,534,570	\$152,720,24
7/1/20-21	12/31/2020	6	111	\$575,500	\$3,024,866	\$2,923,321	\$5,948,187	\$6,523,687	\$164,261,74
7/1/21-22									\$165,080,00
			3012	\$13,074,000	\$211,757,601	\$61,767,991	\$273,525,592	\$286,599,592	

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

<sup>-</sup> Loss and Exposure data contains only current OSIG members as of 12/31/2020

Property with Auto Physical Damage

# Fitted Claim Distribution All Claims

Percentile	Observed	Fitted	
	-3-2	April 1	
5%	\$1,736	\$1,895	
10%	\$2,303	\$2,591	
15%	\$2,843	\$3,250	
20%	\$3,448	\$3,923	
25%	\$4,170	\$4,619	
30%	\$4,940	\$5,366	
35%	\$5,624	\$6,188	
40%	\$6,462	\$7,083	
45%	\$7,581	\$8,097	
50%	\$8,908	\$9,267	
55%	\$10,341	\$10,621	
60%	\$12,234	\$12,249	
65%	\$15,013	\$14,262	
70%	\$17,768	\$16,860	
75%	\$22,077	\$20,449	
80%	\$29,314	\$25,940	
85%	\$41,778	\$36,420	
90%	\$67,493	\$86,166	
95%	\$165,991	\$348,377	
97.5%	\$928,353	\$1,040,099	
99.0%	\$3,320,301	\$2,000,000	
99.5%	\$9,064,525	\$3,410,324	
99.9%	\$25,059,159	\$13,780,783	
Average Severity	\$185,277	\$124,183	

Property with Auto Physical Damage

## **Projected Total Claim Frequency**

(A)	(B) Number of	(C)	(D)	(E)	(F)	(G)	(H) Frequency
Accident	Nonzero		Ultimate	Exposures	Exposure	Trended	per \$1M
Period	Claims	CCDF	Claims	TIV (\$100s)	Trend	Exposures	TIV
7/1/05-06	171	1.000	171.0	\$45,372,745	1.341	\$60,831,534	0.0281
7/1/06-07	210	1.000	210.0	\$57,370,353	1.301	\$74,646,357	0.0281
7/1/07-08	220	1.000	220.0	\$62,925,938	1.259	\$79,222,527	0.0278
7/1/08-09	183	1.000	183.0	\$66,426,354	1.238	\$82,224,664	0.0223
7/1/09-10	236	1.000	236.0	\$70,400,877	1.230	\$86,574,423	0.0273
7/1/10-11	210	1.000	210.0	\$74,175,355	1.201	\$89,082,852	0.0236
7/1/11-12	160	1.000	160.0	\$69,686,902	1.171	\$81,572,904	0.0196
7/1/12-13	152	1.000	152.0	\$62,594,433	1.150	\$71,998,695	0.0211
7/1/13-14	151	1.000	151.0	\$68,701,308	1.133	\$77,823,435	0.0194
7/1/14-15	196	1.000	196.0	\$78,210,987	1.123	\$87,838,368	0.0223
7/1/15-16	168	1.000	168.0	\$79,094,269	1.115	\$88,221,401	0.0190
7/1/16-17	217	1.000	217.0	\$90,180,374	1.097	\$98,903,125	0.0219
7/1/17-18	187	1.000	187.0	\$88,680,169	1.072	\$95,080,281	0.0197
7/1/18-19	217	1.000	217.0	\$117,640,965	1.050	\$123,510,258	0.0176
7/1/19-20	223	1.000	223.0	\$152,720,243	1.034	\$157,924,473	0.0141
7/1/20-21	111	2.167	240.5	\$164,261,745	1.018	\$167,275,050	0.0144
Total	3,012	_	3,141.5	\$1,348,443,018		\$1,522,730,346	0.0206

7/1/21-22

(I) Selected Frequency 0.0198

(J) Forecast Exposure \$165,080,000

(K) Forecast Total Claims 327.4

<sup>(</sup>B) - Exhibit 1-A

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) - (B) \* (C)

<sup>(</sup>E) and (J) = Exhibit 1-A

<sup>(</sup>F) - Appndix B2

<sup>(</sup>G) = (E) \* (F)

<sup>(</sup>H) = (D) / (G) \* 10,000

<sup>(</sup>I) - Average of 14-15 through 19-20

<sup>(</sup>K) = (1) \* (J) / 10,000

Property with Auto Physical Damage

# Calculation of Forecast Ultimate Losses for 7/1/21-22 Unlimited Losses

(A)	(B)	(C)	(D)	(E) Trended	(F)	(G)
Accident	Reported		Loss Trend	Ultimate	Trended	Loss
Period	Losses	RLDF	Factor	Claims	Exposures	Rate
7/1/05-06	\$3,358,883	1.000	1.478	\$4,964,915	\$60,831,534	\$0.082
7/1/06-07	\$6,569,180	1.000	1.420	\$9,327,381	\$74,646,357	\$0.125
7/1/07-08	\$28,371,217	1.000	1.369	\$38,848,550	\$79,222,527	\$0.490
7/1/08-09	\$14,303,298	1.000	1.314	\$18,791,896	\$82,224,664	\$0,229
7/1/09-10	\$17,177,237	1.000	1.240	\$21,308,522	\$86,574,423	\$0.246
7/1/10-11	\$25,260,661	1.000	1.201	\$30,331,658	\$89,082,852	\$0.340
7/1/11-12	\$4,201,202	1.000	1.207	\$5,072,711	\$81,572,904	\$0.062
7/1/12-13	\$6,308,922	1.001	1.201	\$7,580,553	\$71,998,695	\$0.105
7/1/13-14	\$4,854,014	1.001	1.165	\$5,659,797	\$77,823,435	\$0.073
7/1/14-15	\$8,405,925	1.002	1.134	\$9,556,759	\$87,838,368	\$0.109
7/1/15-16	\$15,136,177	1.005	1.102	\$16,769,246	\$88,221,401	\$0.190
7/1/16-17	\$11,817,094	1.011	1.072	\$12,807,721	\$98,903,125	\$0.129
7/1/17-18	\$22,880,855	1.023	1.071	\$25,062,940	\$95,080,281	\$0.264
7/1/18-19	\$33,896,672	1.050	1.069	\$38,047,905	\$123,510,258	\$0.308
7/1/19-20	\$77,534,570	1.114	1.044	\$90,186,866	\$157,924,473	\$0.571
7/1/20-21	\$6,523,687	2.426	1.018	\$16,111,076	\$167,275,050	\$0.096
Total	\$286,599,592			\$350,428,496	\$1,522,730,346	\$0.188

7/1/21-22

(H) Forecast Loss Rate \$0.244

(I) Forecast Exposures \$165,080,000

(J) Forecast Ultimate Losses \$40,333,000

<sup>(</sup>B) - Exhibit 1

<sup>(</sup>C) - Appendix A1

<sup>(</sup>D) - Appendix B1

<sup>(</sup>E) = (B) \* (C) \* (D)

<sup>(</sup>F) - Exhibit 3

<sup>(</sup>G) = (E) / (F)

<sup>(</sup>H) - Average of 10-11 through 19-20

<sup>(</sup>I) - Exhibit 1

<sup>(</sup>J) = (H) \* (I)

Property with Auto Physical Damage

## Calculation of Forecast Member Deductibles for 7/1/21-22

(A)	(B)	(C)	(D)
Accident	Member	Reported	Average
Period	Deductibles	Claims	Deductible
7/1/05-06	\$536,000	171	\$3,135
7/1/06-07	\$1,145,000	210	\$5,452
7/1/07-08	\$1,122,500	220	\$5,102
7/1/08-09	\$1,049,000	183	\$5,732
7/1/09-10	\$1,079,000	236	\$4,572
7/1/10-11	\$943,000	210	\$4,490
7/1/11-12	\$462,000	160	\$2,888
7/1/12-13	\$729,500	152	\$4,799
7/1/13-14	\$285,000	151	\$1,887
7/1/14-15	\$801,500	196	\$4,089
7/1/15-16	\$612,000	168	\$3,643
7/1/16-17	\$1,061,000	217	\$4,889
7/1/17-18	\$574,500	187	\$3,072
7/1/18-19	\$1,012,500	217	\$4,666
7/1/19-20	\$1,086,000	223	\$4,870
7/1/20-21	\$575,500	111	\$5,185
Total	\$13,074,000	3,012	\$4,341
	(E) Selected A	verage Deductible	\$4,900
	(F) Fore	ecast Total Claims	327.4
	420 200 200		The state of the state of

(G) Forecast Deductible Losses \$1,603,000

<sup>(</sup>B) and (C) - Exhibit 1

<sup>(</sup>D) = (B) / (C)

<sup>(</sup>E) - Judgmentally selected based on recent years

<sup>(</sup>F) - Exhibit 3

<sup>(</sup>G) = (E) \* (F)

### Forecast Ultimate Losses for 7/1/21-22

Maintenance Deductible Aggregate Deductible Trailing Deductible

\$25,000 \$20,000,000 \$100,000

(A)	(B)	(C)	(D)	(E)	(F) Total	(G) Total Net	(H)
	Ultimate	Member	Retained	Unlimited	Program	of Member	Insured
Percentile	Claims	Deductibles	APD Losses	Losses	Losses	Deductibles	Excess
20.0%	312	\$1,388,000	\$25,000	\$26,017,000	\$24,061,000	\$22,570,000	\$1,775,000
30.0%	318	\$1,458,000	\$25,000	\$29,236,000	\$24,409,000	\$22,876,000	\$4,605,000
40.0%	323	\$1,522,000	\$50,000	\$32,444,000	\$24,694,000	\$23,121,000	\$7,531,000
50.0%	327	\$1,585,000	\$50,000	\$35,942,000	\$24,962,000	\$23,355,000	\$10,791,000
60.0%	332	\$1,650,000	\$75,000	\$40,027,000	\$25,232,000	\$23,591,000	\$14,648,000
70.0%	337	\$1,721,000	\$75,000	\$45,308,000	\$25,527,000	\$23,847,000	\$19,721,000
75.0%	340	\$1,762,000	\$75,000	\$48,615,000	\$25,688,000	\$23,988,000	\$22,950,000
80.0%	343	\$1,808,000	\$125,000	\$52,712,000	\$25,867,000	\$24,145,000	\$26,965,000
85.0%	346	\$1,863,000	\$125,000	\$57,928,000	\$26,077,000	\$24,329,000	\$32,111,000
90.0%	351	\$1,935,000	\$155,000	\$64,992,000	\$26,341,000	\$24,559,000	\$39,120,000
95.0%	358	\$2,046,000	\$155,000	\$75,935,000	\$26,721,000	\$24,890,000	\$49,930,000
99.0%	370	\$2,267,000	\$155,000	\$98,631,000	\$27,402,000	\$25,477,000	\$72,238,000
Expected	327	\$1,603,000	\$60,000	\$40,333,000	\$24,544,000	\$22,941,000	\$15,789,000
IV in \$00s	\$165,080,000						
Rate		\$0.010		\$0.244	\$0.149	\$0.139	\$0.096

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) - Exhibit 5

<sup>(</sup>E) - Exhibit 4

<sup>(</sup>F) - Results of Monte Carlo simulation of claim frequency and severity with insurance limits applied Includes APD losses due to Over the Road accidents

<sup>(</sup>G) = (F), net of member deductibles (H) = (E) - (F)

### Forecast Ultimate Losses for 7/1/21-22

Maintenance Deductible Aggregate Deductible Trailing Deductible \$25,000 \$25,000,000 \$100,000

(A)	(B)	(C)	(D)	(E)	(F) Total	(G) Total Net	(H)
	Ultimate	Member	Retained	Unlimited	Program	of Member	Insured
Percentile	Claims	Deductibles	APD Losses	Losses	Losses	Deductibles	Excess
20.0%	312	\$1,388,000	\$25,000	\$26,017,000	\$26,017,000	\$24,546,000	\$0
30.0%	318	\$1,458,000	\$25,000	\$29,236,000	\$28,780,000	\$27,240,000	\$184,000
40.0%	323	\$1,522,000	\$50,000	\$32,444,000	\$29,233,000	\$27,660,000	\$3,019,000
50.0%	327	\$1,585,000	\$50,000	\$35,942,000	\$29,538,000	\$27,929,000	\$6,217,000
60.0%	332	\$1,650,000	\$75,000	\$40,027,000	\$29,835,000	\$28,191,000	\$10,009,00
70.0%	337	\$1,721,000	\$75,000	\$45,308,000	\$30,161,000	\$28,477,000	\$15,012,00
75.0%	340	\$1,762,000	\$75,000	\$48,615,000	\$30,346,000	\$28,637,000	\$18,203,000
80.0%	343	\$1,808,000	\$125,000	\$52,712,000	\$30,550,000	\$28,814,000	\$22,184,000
85.0%	346	\$1,863,000	\$125,000	\$57,928,000	\$30,784,000	\$29,024,000	\$27,300,00
90.0%	351	\$1,935,000	\$155,000	\$64,992,000	\$31,077,000	\$29,287,000	\$34,285,00
95.0%	358	\$2,046,000	\$155,000	\$75,935,000	\$31,502,000	\$29,668,000	\$45,087,00
99.0%	370	\$2,267,000	\$155,000	\$98,631,000	\$32,240,000	\$30,332,000	\$67,324,00
Expected	327	\$1,603,000	\$60,000	\$40,333,000	\$28,185,000	\$26,582,000	\$12,148,00
IV in \$00s	\$165,080,000						
Rate				\$0.244	\$0.171	\$0.161	\$0.074

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) - Exhibit 5

<sup>(</sup>E) - Exhibit 4

<sup>(</sup>F) - Results of Monte Carlo simulation of claim frequency and severity with insurance limits applied Includes APD losses due to Over the Road accidents

<sup>(</sup>G) = (F), net of member deductibles

<sup>(</sup>H) = (E) - (F)

# Estimation of Cumulative Reported Loss Development Factors Losses Limited to \$250,000 per Occurrence Using "The Method of Least Squares"

		Tra	nsformed	Values for F	Regression	-	Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	х	Cumulative Factor Y
12	1.177	-5.8916	-1.7311	34.711	2.9968	10.1992	186	1.000
24	1.069	-5.9243	-2.6675	35.097	7.1156	15.8031	174	1.000
36	1.037	-5.9558	-3.3001	35.472	10.8910	19.6551	162	1.000
48	1.015	-5.9865	-4.1964	35.838	17.6096	25.1214	150	1.000
							138	1.000
							126	1.000
							114	1.000
							102	1.001
							90	1.001
							78	1.002
							66	1.005
							54	1.011
9	Sum	-23.7582	-11.8952	141.1179	38.6130	70.7788	42	1.023
Av	erage	-5.9395	-2.9738	35.2795	9.6533	17.6947	30	1.050
							18	1.114
							6	2.426

N	=	4		
Δ.	=	1.743E+64		
E	3 =	25.405	R^2 =	0.99505
	=	350		A CAMA

<sup>\* -</sup> Appendix A4 from IBNR Study

# Estimation of Cumulative Reported Claim Development Factors Using "The Method of Least Squares"

40.7.w		Tra	nsformed \	/alues for I	Regression		Fitte	ed Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y
12	1.000						186	1.000
24	1.000						174	1.000
							162	1.000
							150	1.000
	- 4 ()	1					138	1.000
							126	1.000
							114	1.000
		į.					102	1.000
							90	1.000
							78	1.000
							66	1.000
							54	1.000
	Sum	0.0000	0.0000	0.0000	0.0000	0.0000	42	1.000
Αv	/erage	0.0000	0.0000	0.0000	0.0000	0.0000	30	1.000
							18	1.000
							6	2.167
N =	2							
A =	i h							
B =	81							

<sup>\* -</sup> Appendix A6 from IBNR study

Property with Auto Physical Damage

Derivation of Loss Trend Factors
Base on U.S. Claims Cost Index - Commerical Property

(A)	(B)	(C) Annual	(D)	(E)	(F) Trend Factor
		Percent	Accident	Interpolated	to
Year	Index	Increase	Period	Index	7/1/21-22
2005	100.0				
2006	104.7	4.7%	7/1/05-06	102.3	1.478
2007	108.4	3.6%	7/1/06-07	106.5	1.420
2008	112.5	3.8%	7/1/07-08	110.5	1.369
2009	117.7	4.6%	7/1/08-09	115.1	1.314
2010	126.2	7.2%	7/1/09-10	121.9	1.240
2011	125.8	-0.3%	7/1/10-11	126.0	1.201
2012	124.8	-0.8%	7/1/11-12	125.3	1.207
2013	127.1	1.9%	7/1/12-13	126.0	1.201
2014	132.6	4.3%	7/1/13-14	129.9	1.165
2015	134.1	1.1%	7/1/14-15	133.4	1.134
2016	140.3	4.6%	7/1/15-16	137.2	1.102
2017	141.8	1.0%	7/1/16-17	141.0	1.072
2018	140.7	-0.7%	7/1/17-18	141.2	1.071
2019	142.3	1.1%	7/1/18-19	141.5	1.069
2020	147.3	3.5%	7/1/19-20	144.8	1.044
2021*	149.9	1.8%	7/1/20-21	148.6	1.018
2022*	152.6	1.8%	7/1/21-22	151.3	1.000

<sup>(</sup>B) and (C) - Willis Towers Watson Claim Cost Index, willistowerswatson.com Jeremy Pecora and Emily Thompson, September 9, 2020

<sup>\* 2021</sup> Estimated based on average of last six years

<sup>(</sup>E) - Linear interpolation of column (B)

<sup>(</sup>F) - [(E), forecast period] / [(E), current period]

Property with Auto Physical Damage

# Derivation of Exposure Trend Factors Based on the Consumer Price Index

(A)	(B)	(C) Annual	(D)	(E)	(F) Trend Facto
		Percent	Accident	Interpolated	to
Year	Index	Increase	Period	Index	7/1/21-22
2005	195.3				
2006	201.6	3.2%	7/1/05-06	198.4	1.341
2007	207.3	2.9%	7/1/06-07	204.5	1.301
2008	215.3	3,8%	7/1/07-08	211.3	1.259
2009	214.6	-0.3%	7/1/08-09	214.9	1.238
2010	218.1	1.6%	7/1/09-10	216.3	1.230
2011	224.9	3.1%	7/1/10-11	221.5	1.201
2012	229.6	2.1%	7/1/11-12	227.3	1.171
2013	233.0	1.5%	7/1/12-13	231.3	1.150
2014	236.7	1.6%	7/1/13-14	234.8	1.133
2015	237.0	0.1%	7/1/14-15	236.9	1.123
2016	240.0	1.3%	7/1/15-16	238.5	1.115
2017	245.1	2.1%	7/1/16-17	242.6	1.097
2018	251.1	2.4%	7/1/17-18	248.1	1.072
2019	255.7	1.8%	7/1/18-19	253.4	1.050
2020	258.9	1.3%	7/1/19-20	257.3	1.034
2021*	263.6	1,8%	7/1/20-21	261.2	1.018
2022*	268.4	1.8%	7/1/21-22	266.0	1.000

<sup>(</sup>B) and (C) - CPI data published by U.S. Department of Labor, Bureau of Statistics

<sup>\* -</sup> future trend estimated based on last three years

<sup>(</sup>E) - Linear interpolation of column (B)

<sup>(</sup>F) - [(E), forecast period] / [(E), current period]



# Reserve Evaluation

# **Oklahoma Schools Insurance Group**

APRIL 21, 2021

28 White Bridge Road, Suite 205 Nashville, TN 37205-1428 info@SelectActuarial.com

> 615-269-4469 SelectActuarial.com



## Reserve Evaluation

# **Oklahoma Schools Insurance Group**

Report Date: April 21, 2021

**Report Notes** 

Based on data as of December 31, 2020

Prepared by

Saura J. Sprouse Digitally signed by Laura Sprouse, FCAS, MAAA Date: 2021-04-21 12:42:39

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# Section 1

# **Executive Summary**

The purpose of this report is to provide the Oklahoma Schools Insurance Group (OSIG) with an evaluation of the projected liabilities associated with the retained losses and allocated loss adjustment expenses for its property and liability programs. The specific objectives are (a) to estimate the liability for unpaid losses and allocated loss adjustment expenses as of December 31, 2020 and projected to June 30, 2021; and (b) to analyze the variability inherent in the outstanding losses and IBNR reserves by deriving estimates at various percentiles or confidence levels. Throughout this report the term losses refers to both losses and allocated loss adjustment expenses.

The table below shows the outstanding losses projected as of June 30, 2021, broken down between case reserves and IBNR reserves. Losses shown are undiscounted.

	Estimated Unpaid Liabi	lities as of June 30, 202	21
	Case Reserves	IBNR Reserves	Total Reserve
Liability	\$6,085,000	\$1,984,000	\$8,069,000
Property	\$4,506,803	\$2,864,000	\$7,371,000
Total	\$10,591,803	\$4,848,000	\$15,440,000

Tables at the end of this Executive Summary display the results of our analysis in greater detail. Table A summarizes the ultimate and outstanding losses and IBNR by policy year. Table B shows the IBNR estimates at various percentiles. Table C shows the change in experience since the previous actuarial report. Tables 1 and 2 for each coverage show the projected reserves as of June 30, 2021 and the change in experience since the previous actuarial report.

## Discussion of Results

### **Automobile Liability**

Outstanding losses as of December 31, 2020, are \$2,115,000 undiscounted. This includes \$1,676,000 in case reserves and \$439,000 in IBNR reserves. The estimated required reserves as of June 30, 2021 are expected to be \$1,854,000 with \$432,000 of this due to IBNR (Exhibits 5-A&B).

Compared to the projections in the previous actuarial study as of June 30, 2020, reported losses have developed about \$497,000 less than expected in total. The 20-21 year losses are significantly below



expected levels as the pandemic continues to affect in person instruction and bus ridership and routes. We have reduced the ultimate losses from the forecast estimate of \$1,583,000 to \$1,117,000. There were also some smaller reductions on years 14-15 through 19-20. In total, the selected ultimate losses for years through 20-21 have been decreased by \$631,000 (Exhibit 4-A).

### **General Liability**

Outstanding losses as of December 31, 2020, are \$6,540,000 undiscounted. This includes \$5,095,000 in case reserves and \$1,445,000 in IBNR reserves. The estimated required reserves as of June 30, 2021 are expected to be \$6,245,000 with \$1,552,000 of this due to IBNR (Exhibits 5-A&B).

Compared to the projections in the previous actuarial study as of June 30, 2020, reported losses have developed about \$202,000 more than expected in total. The 20-21 year losses are above expected levels with four claims already reported over \$75,000, and slightly higher claim frequency than the prior year. We have increased the ultimate losses from the forecast estimate of \$2,434,000 to \$2,536,000. There were also increases to the 18-19 and 19-20 years and decreases to years 11-12 through 17-18. In total, the selected ultimate losses for years through 20-21 have been increased by \$247,000 (Exhibit 4-A).

### **Property including Auto Physical Damage**

Outstanding losses as of December 31, 2020, are \$8,544,000 undiscounted. This includes \$4,834,000 in case reserves and \$3,721,000 in IBNR reserves. The IBNR includes \$834,000 for the corridor layer as OSIG has \$2,166,000 of reported losses in the corridor so far. The estimated required reserves as of June 30, 2021 are expected to be \$7,371,000 with \$2,864,000 of this due to IBNR (Exhibit 5-A&B). We would expect that the corridor will be reached by June 30.

Compared to the projections in the previous actuarial study as of June 30, 2020, total losses increased significantly due to the costs of storms in the spring of 2020. The effects on OSIG's retained losses was minor in comparison. We increased the ultimate losses for the 19-20 year by \$372,000, which was offset by reductions on prior years. In total, the ultimate losses for years through 20-21 were increased by \$156,000.

## COVID-19

As school systems suspended in person learning at the start of the pandemic and moved to various forms of hybrid learning for the current year, the biggest impact to OSIG has been the reduction in claim frequency for automobile liability. General liability losses which lagged for 19-20 seem to have rebounded as ultimate losses were increased for 20-21 and also for a number of historical years. It will be a number of years before the effects of the pandemic are known.

Automobile and General Liability

## Projection of Outstanding Losses As of June 30, 2021

(A)	(B)	(C)	(D)	(E)	(F)	(G)
A - Miles	11010000	Projected	Projected	Projected	IDMO	Outstanding
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$233,996	\$233,996	\$233,996	\$0	\$0	\$0
7/1/03-04	\$1,197,571	\$1,197,571	\$1,197,571	\$0	\$0	\$0
7/1/04-05	\$1,107,309	\$1,107,309	\$1,107,309	\$0	\$0	\$0
7/1/05-06	\$1,704,377	\$1,704,377	\$1,704,377	\$0	\$0	\$0
7/1/06-07	\$1,488,442	\$1,488,442	\$1,488,442	\$0	\$0	\$0
7/1/07-08	\$2,192,521	\$2,192,521	\$2,192,521	\$0	\$0	\$0
7/1/08-09	\$2,582,887	\$2,582,887	\$2,582,887	\$0	\$0	\$0
7/1/09-10	\$1,975,261	\$1,975,261	\$1,975,261	\$0	\$0	\$0
7/1/10-11	\$2,691,333	\$2,672,333	\$2,684,333	\$12,000	\$7,000	\$19,000
7/1/11-12	\$2,408,511	\$2,408,511	\$2,408,511	\$0	\$0	\$0
7/1/12-13	\$1,404,317	\$1,380,317	\$1,404,317	\$24,000	\$0	\$24,000
7/1/13-14	\$1,506,842	\$1,484,842	\$1,506,842	\$22,000	\$0	\$22,000
7/1/14-15	\$2,759,000	\$2,642,000	\$2,753,000	\$111,000	\$6,000	\$117,000
7/1/15-16	\$2,820,000	\$2,715,000	\$2,807,000	\$92,000	\$13,000	\$105,000
7/1/16-17	\$3,778,000	\$3,130,000	\$3,738,000	\$608,000	\$40,000	\$648,000
7/1/17-18	\$2,639,000	\$1,852,000	\$2,496,000	\$644,000	\$143,000	\$787,000
7/1/18-19	\$3,281,000	\$1,903,000	\$3,075,000	\$1,172,000	\$206,000	\$1,378,000
7/1/19-20	\$3,455,000	\$1,457,000	\$2,929,000	\$1,472,000	\$526,000	\$1,998,000
7/1/20-21	\$3,653,000	\$682,000	\$2,610,000	\$1,928,000	\$1,043,000	\$2,971,000
Total	\$42,878,366	\$34,809,366	\$40,894,366	\$6,085,000	\$1,984,000	\$8,069,000

<sup>(</sup>B) through (D) - Exhibit 5-B, sum of AL and GL losses within OSIG Retention

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)

## Oklahoma Schools Insurance Group Automobile and General Liability

## Percentile Distribution of IBNR For Liability Coverages As of June 30, 2021

percentile	Ultimate Losses	IBNR Reserve	Total Reserve
Expected	\$42,878,366	\$1,984,000	\$8,069,000
40%	\$42,341,000	\$1,447,000	\$7,532,000
50%	\$42,709,000	\$1,815,000	\$7,900,000
60%	\$43,078,000	\$2,184,000	\$8,269,000
70%	\$43,462,000	\$2,568,000	\$8,653,000
75%	\$43,700,000	\$2,806,000	\$8,891,000
80%	\$43,944,000	\$3,050,000	\$9,135,000
90%	\$44,664,000	\$3,770,000	\$9,855,000
95%	\$45,207,000	\$4,313,000	\$10,398,000

Total Expected Ultimate Losses	\$42,878,366
Total Paid Losses as of 6/30/21	\$34,809,366
Total Case Reserves as of 6/30/21	\$6,085,000
Total IBNR Reserves as of 6/30/21	\$1,984,000
Total Outstanding Losses as of 6/30/21	\$8,069,000

<sup>-</sup> Based on a Monte Carlo simulation of 10,000 sample outcomes AL and GL losses modeled by accident year using a lognormal distribution Losses are limited to program aggregate limits each year.

### Comparison of Results with Previous Estimates as of 06/30/20

(A)	(B) Actual Reported	(C) Projected Reported	(D) Actual Reported	(E)	(I) Actual Paid	(J) Projected Paid	(K) Actual Paid	(L)	(F) Expected Ultimate	(F) Actual Ultimate	(H)
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	Difference
7/1/02-03	\$233,996	\$233,996	\$233,996	0.0%	\$233,996	\$233,996	\$233,996	0.0%	\$233,996	\$233,996	0.0%
7/1/03-04	\$1,197,571	\$1,197,571	\$1,197,571	0.0%	\$1,197,571	\$1,197,571	\$1,197,571	0.0%	\$1,197,571	\$1,197,571	0.0%
7/1/04-05	\$1,107,309	\$1,107,309	\$1,107,309	0.0%	\$1,107,309	\$1,107,309	\$1,107,309	0.0%	\$1,107,309	\$1,107,309	0.0%
7/1/05-06	\$1,704,377	\$1,704,377	\$1,704,377	0.0%	\$1,704,377	\$1,704,377	\$1,704,377	0.0%	\$1,704,377	\$1,704,377	0.0%
7/1/06-07	\$1,488,442	\$1,488,442	\$1,488,442	0.0%	\$1,488,442	\$1,488,442	\$1,488,442	0.0%	\$1,488,442	\$1,488,442	0.0%
7/1/07-08	\$2,192,521	\$2,192,521	\$2,192,521	0.0%	\$2,192,521	\$2,192,521	\$2,192,521	0.0%	\$2,192,521	\$2,192,521	0.0%
7/1/08-09	\$2,582,887	\$2,582,887	\$2,582,887	0.0%	\$2,582,887	\$2,582,887	\$2,582,887	0.0%	\$2,582,887	\$2,582,887	0.0%
7/1/09-10	\$1,975,261	\$1,975,261	\$1,975,261	0.0%	\$1,975,261	\$1,975,261	\$1,975,261	0.0%	\$1,975,261	\$1,975,261	0.0%
7/1/10-11	\$2,681,419	\$2,681,725	\$2,681,419	0.0%	\$2,663,590	\$2,668,822	\$2,664,567	-0.2%	\$2,682,333	\$2,691,333	0.3%
7/1/11-12	\$2,408,325	\$2,408,726	\$2,408,325	0.0%	\$2,408,325	\$2,408,675	\$2,408,325	0.0%	\$2,409,511	\$2,408,511	0.0%
7/1/12-13	\$1,403,664	\$1,413,420	\$1,403,664	-0.7%	\$1,368,315	\$1,388,355	\$1,368,315	-1.4%	\$1,432,317	\$1,404,317	-2.0%
7/1/13-14	\$1,506,686	\$1,507,769	\$1,506,686	-0.1%	\$1,472,888	\$1,485,177	\$1,473,650	-0.8%	\$1,509,842	\$1,506,842	-0.2%
7/1/14-15	\$2,796,598	\$2,803,456	\$2,751,026	-1.9%	\$2,573,301	\$2,668,252	\$2,585,901	-3.1%	\$2,816,000	\$2,759,000	-2.0%
7/1/15-16	\$2,883,164	\$2,905,361	\$2,800,334	-3.6%	\$2,628,083	\$2,750,398	\$2,662,863	-3.2%	\$2,946,000	\$2,820,000	-4.3%
7/1/16-17	\$3,654,251	\$3,701,215	\$3,716,637	0.4%	\$2,653,988	\$3,088,080	\$2,748,389	-11.0%	\$3,787,000	\$3,778,000	-0.2%
7/1/17-18	\$2,554,653	\$2,624,679	\$2,415,505	-8.0%	\$1,170,471	\$1,729,490	\$1,420,619	-17.9%	\$2,755,000	\$2,639,000	-4.2%
7/1/18-19	\$2,662,205	\$2,820,042	\$2,949,471	4.6%	\$985,597	\$1,535,585	\$1,345,739	-12.4%	\$3,141,000	\$3,281,000	4.5%
7/1/19-20	\$2,495,717	\$2,671,549	\$2,782,097	4.1%	\$764,831	\$1,136,146	\$1,030,060	-9.3%	\$3,284,000	\$3,455,000	5.2%
7/1/20-21		\$1,443,659	\$1,271,780	-11.9%		\$376,102	\$207,024	-45.0%	\$4,017,000	\$3,653,000	-9.1%
Total	\$37,529,045	\$39,463,962	\$39,169,307	-0.7%	\$31,171,753	\$33,717,447	\$32,397,815	-3.9%	\$43,262,366	\$42,878,366	-0.9%

Difference in Actual and Expected Losses -\$294,655

Change in Ultimates -\$384,000

<sup>(</sup>B), (F), (I) and (M) - From Previous actuarial report as of 6/30/2020

<sup>(</sup>C) and (J) - Based on information available as of 6/30/2020

<sup>(</sup>D) and (K) - Exhibit 1-C

<sup>(</sup>D) and (K) - Exhibit 1-(E) = [(D) / (C)] - 1 (G) and (N) - Exhibit 3 (H) = [(G) / (F)] - 1 (L) = [(K) / (J)] - 1 (O) = [(N) / (M)] - 1

## Oklahoma Schools Insurance Group Property including Auto Physical Damage

## Projection of Outstanding Losses As of June 30, 2021

(A)	(B)	(C)	(D) Projected	(E) Projected	(F) Projected	(G)	(H)
Accident		Ultimate	Paid	Reported	Case	IBNR	Outstandin
Period	SIR	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$100k/\$200k	\$312,045	\$312,045	\$312,045	\$0	\$0	\$0
7/1/03-04	\$100k/\$200k	\$1,287,169	\$1,287,169	\$1,287,169	\$0	\$0	\$0
7/1/04-05	\$100k/\$200k	\$1,266,993	\$1,266,993	\$1,266,993	\$0	\$0	\$0
7/1/05-06	\$100k/\$200k	\$2,616,997	\$2,616,997	\$2,616,997	\$0	\$0	\$0
7/1/06-07	\$100k/\$200k	\$2,604,514	\$2,604,514	\$2,604,514	\$0	\$0	\$0
7/1/07-08	\$100k/\$200k	\$3,915,481	\$3,915,481	\$3,915,481	\$0	\$0	\$0
7/1/08-09	\$100k/\$200k	\$4,560,396	\$4,560,396	\$4,560,396	\$0	\$0	\$0
7/1/09-10	\$100k/\$200k	\$4,870,041	\$4,870,041	\$4,870,041	\$0	\$0	\$0
7/1/10-11	\$100k/\$200k \$100k/\$200k	\$3,569,472	\$3,569,472	\$3,569,472	\$0	\$0	\$0
							6
Subtotal		\$25,003,107	\$25,003,107	\$25,003,107	\$0	\$0	\$0
7/1/11-12	\$250,000	\$3,282,543	\$3,282,543	\$3,282,543	\$0	\$0	\$0
7/1/12-13	\$250,000	\$3,032,675	\$3,032,675	\$3,032,675	\$0	\$0	\$0
7/1/13-14	\$250,000	\$2,506,177	\$2,506,177	\$2,506,177	\$0	\$0	\$0
7/1/14-15	\$250,000	\$3,730,000	\$3,496,525	\$3,723,459	\$226,933	\$7,000	\$233,000
7/1/15-16	\$250,000	\$3,744,000	\$3,685,735	\$3,730,609	\$44,874	\$13,000	\$58,000
7/1/16-17	\$250,000	\$4,749,000	\$4,636,025	\$4,714,644	\$78,618	\$34,000	\$113,000
7/1/17-18	\$250,000	\$5,311,000	\$4,817,288	\$5,229,625	\$412,337	\$81,000	\$494,000
7/1/18-19	\$250,000	\$4,792,000	\$4,557,184	\$4,635,057	\$77,872	\$157,000	\$235,000
7/1/19-20	\$250,000 / \$500,000	\$9,722,000	\$8,504,947	\$9,040,299	\$535,352	\$682,000	\$1,217,00
7/1/20-21	\$250,000 / \$750,000	\$10,497,000	\$6,976,138	\$8,606,954	\$1,630,816	\$1,890,000	\$3,521,00
Subtotal		\$51,366,394	\$45,495,237	\$48,502,040	\$3,006,803	\$2,864,000	\$5,871,000
Corridor Losses							
7/1/11-12	\$2,700,000	\$735,946	\$735,946	\$735,946	\$0	\$0	\$0
7/1/12-13	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$0	\$0	\$0
7/1/13-14	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/14-15	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/15-16	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/16-17	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/17-18	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/18-19	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/19-20	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/20-21	\$3,000,000	\$3,000,000	\$1,500,000	\$3,000,000	\$1,500,000	\$0	\$1,500,00
		\$15,935,946	\$14,435,946	\$15,935,946	\$1,500,000	\$0	\$1,500,00
Subtotal		415/505/5 .5	411,100,010	4 10 - 11 / 0	C. Secondora		CAST CONTRACTOR

<sup>(</sup>C) - Ultimate losses are equal to limited reported losses in (E) through 10-11 Exhibit 3 for 11-12 to present

<sup>(</sup>D) and (E) - Projected using loss deveopment factors

<sup>(</sup>F) = (E) - (D)

<sup>(</sup>G) = (C) - (E)

<sup>(</sup>H)=(C)-(D)

## Oklahoma Schools Insurance Group

Property including Auto Physical Damage

## Percentile Distribution of IBNR For Property Coverages As of June 30, 2021

Expected	\$92,305,448	\$2,864,000	\$7,371,000
40%	\$91,487,000	\$2,046,000	\$6,553,000
50%	\$92,135,000	\$2,694,000	\$7,201,000
60%	\$92,833,000	\$3,392,000	\$7,899,000
70%	\$93,569,000	\$4,128,000	\$8,635,000
75%	\$94,005,000	\$4,564,000	\$9,071,000
80%	\$94,475,000	\$5,034,000	\$9,541,000
90%	\$95,766,000	\$6,325,000	\$10,832,000
95%	\$96,842,000	\$7,401,000	\$11,908,000

Total Expected Ultimate Losses	\$92,305,448
Total Paid Losses as of 6/30/21	\$84,934,290
Total Case Reserves as of 6/30/21	\$4,506,803
Total IBNR Reserves as of 6/30/21	\$2,864,000
Total Outstanding Losses as of 6/30/21	\$7,371,000

### Oklahoma Schools Insurance Group

Property including Auto Physical Damage

### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1, 18	Prior	Expected	Actual		Prior	Current	
	Reported	Reported	Reported		Ultimate	Ultimate	
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	Differenc
Limited to SIR							
7/1/11-12	\$3,282,543	\$3,282,543	\$3,282,543	0.0%	\$3,282,543	\$3,282,543	0.0%
7/1/12-13	\$3,032,675	\$3,032,675	\$3,032,675	0.0%	\$3,032,675	\$3,032,675	0.0%
7/1/13-14	\$2,506,177	\$2,506,177	\$2,506,177	0.0%	\$2,510,352	\$2,506,177	-0.2%
7/1/14-15	\$3,720,690	\$3,720,690	\$3,720,690	0.0%	\$3,740,662	\$3,730,000	-0.3%
7/1/15-16	\$3,724,762	\$3,732,711	\$3,724,762	-0.2%	\$3,744,000	\$3,744,000	0.0%
7/1/16-17	\$4,699,189	\$4,754,826	\$4,699,199	-1.2%	\$4,833,000	\$4,749,000	-1.7%
7/1/17-18	\$5,038,789	\$5,151,762	\$5,192,157	0.8%	\$5,310,000	\$5,311,000	0.0%
7/1/18-19	\$4,660,002	\$4,762,950	\$4,562,010	-4.2%	\$4,910,000	\$4,792,000	-2.4%
7/1/19-20	\$8,100,294	\$9,242,787	\$8,729,260	-5.6%	\$9,350,000	\$9,722,000	4.0%
7/1/20-21	170,550,550	\$4,311,381	\$3,782,666	-12.3%	\$10,497,000	\$10,497,000	0.0%
Total	\$38,765,120	\$44,498,500	\$43,232,139	-2.8%	\$51,210,232	\$51,366,394	0.3%
Unlimited							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$6,136,455	\$6,136,455	\$6,136,455	0.0%	\$6,136,455	\$6,136,455	0.0%
7/1/13-14	\$4,590,290	\$4,590,290	\$4,590,290	0.0%	\$4,590,290	\$4,590,290	0.0%
7/1/14-15	\$7,768,693	\$7,768,693	\$7,768,693	0.0%	\$7,787,000	\$7,800,000	0.2%
7/1/15-16	\$14,849,611	\$14,882,239	\$14,849,611	-0.2%	\$14,941,000	\$15,002,000	0.4%
7/1/16-17	\$11,283,323	\$11,357,082	\$11,283,333	-0.6%	\$11,474,000	\$11,583,000	0.9%
7/1/17-18	\$21,777,841	\$22,078,724	\$22,481,686	1.8%	\$22,496,000	\$24,033,000	6.8%
7/1/18-19	\$29,947,726	\$31,057,731	\$32,890,372	5.9%	\$32,439,000	\$38,849,000	19.8%
7/1/19-20	\$44,221,069	\$51,030,933	\$76,536,545	50.0%	\$52,528,000	\$103,434,000	96.9%
7/1/20-21		\$8,898,941	\$5,948,187	-33.2%	\$30,111,000	\$30,111,000	0.0%
Total	\$144,593,496	\$161,819,575	\$186,503,660	15.3%	\$186,521,233	\$245,557,233	31.7%
SIR + Corridor							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$5,432,675	\$5,432,675	\$5,432,675	0.0%	\$5,432,675	\$5,432,675	0.0%
7/1/13-14	\$3,906,177	\$3,906,177	\$3,906,177	0.0%	\$3,910,352	\$3,906,177	-0.1%
7/1/14-15	\$5,120,690	\$5,120,690	\$5,120,690	0.0%	\$5,140,662	\$5,130,000	-0.2%
7/1/15-16	\$5,124,762	\$5,132,711	\$5,124,762	-0.2%	\$5,144,000	\$5,144,000	0.0%
7/1/16-17	\$6,099,189	\$6,154,826	\$6,099,199	-0.9%	\$6,233,000	\$6,149,000	-1.3%
7/1/17-18	\$6,438,789	\$6,551,762	\$6,592,157	0.6%	\$6,710,000	\$6,711,000	0.0%
7/1/18-19	\$6,060,002	\$6,162,950	\$5,962,010	-3.3%	\$6,310,000	\$6,192,000	-1.9%
7/1/19-20	\$9,500,294	\$10,642,787	\$10,129,260	-4.8%	\$10,750,000	\$11,122,000	3.5%
7/1/20-21		\$7,311,381	\$5,948,187	-18.6%	\$13,497,000	\$13,497,000	0.0%
Total	\$51,701,066	\$60,434,446	\$58,333,606	-3.5%	\$67,146,177	\$67,302,340	0.2%

<sup>(</sup>B) and (F) - From Previous actuarial report as of 6/30/2020

<sup>(</sup>C) - Derived from (B) and (F) using loss development patterns

<sup>(</sup>D) - Exhibit 1-C

<sup>(</sup>E) = [(D)/(C)] - 1

<sup>(</sup>G) - Exhibit 3

<sup>(</sup>H) = [(G)/(F)] - 1

General Liability including E&O

# Projected Outstanding Losses As of June 30, 2021

(A)	(B) Estimated	(C) Projected	(D) Projected	(E) Limited	(F)	(G)
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$168,909	\$168,909	\$168,909	\$0	\$0	\$0
7/1/03-04	\$840,274	\$840,274	\$840,274	\$0	\$0	\$0
7/1/04-05	\$488,972	\$488,972	\$488,972	\$0	\$0	\$0
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	\$0	\$0	\$0
7/1/06-07	\$953,237	\$953,237	\$953,237	\$0	\$0	\$0
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	\$0	\$0	\$0
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	\$0	\$0	\$0
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	\$0	\$0	\$0
7/1/10-11	\$1,848,000	\$1,829,000	\$1,841,000	\$12,000	\$7,000	\$19,000
7/1/11-12	\$1,460,000	\$1,460,000	\$1,460,000	\$0	\$0	\$0
7/1/12-13	\$779,000	\$755,000	\$779,000	\$24,000	\$0	\$24,000
7/1/13-14	\$807,000	\$785,000	\$807,000	\$22,000	\$0	\$22,000
7/1/14-15	\$1,649,000	\$1,601,000	\$1,645,000	\$44,000	\$4,000	\$48,000
7/1/15-16	\$1,701,000	\$1,660,000	\$1,692,000	\$32,000	\$9,000	\$41,000
7/1/16-17	\$2,563,000	\$2,062,000	\$2,530,000	\$468,000	\$33,000	\$501,000
7/1/17-18	\$1,678,000	\$1,122,000	\$1,564,000	\$442,000	\$114,000	\$556,000
7/1/18-19	\$2,157,000	\$1,014,000	\$2,001,000	\$987,000	\$156,000	\$1,143,000
7/1/19-20	\$1,936,000	\$391,000	\$1,620,000	\$1,229,000	\$316,000	\$1,545,000
7/1/20-21	\$2,536,000	\$190,000	\$1,623,000	\$1,433,000	\$913,000	\$2,346,000
Total	\$26,682,844	\$20,437,844	\$25,130,844	\$4,693,000	\$1,552,000	\$6,245,000

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Projected using loss develpment factors

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)

#### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B) Actual	(C) Expected	(D) Actual	(E)	(F) Actual	(G) Expected	(H) Actual	(1)	(J) Expected	(K) Actual	(L)
Accident	Reported Losses	Reported Losses	Reported Losses	Percent	Paid Losses	Paid Losses	Paid Losses	Percent	Ultimate Losses	Ultimate Losses	Percent
Period	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	Difference
7/1/02-03	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	0.0%
7/1/03-04	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	0.0%
7/1/04-05	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	0.0%
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	0.0%
7/1/06-07	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	0.0%
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	0.0%
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	0.0%
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	0.0%
7/1/10-11	\$1,838,086	\$1,838,392	\$1,838,086	0.0%	\$1,820,257	\$1,825,489	\$1,821,235	-0.2%	\$1,839,000	\$1,848,000	0.5%
7/1/11-12	\$1,459,814	\$1,460,214	\$1,459,814	0.0%	\$1,459,814	\$1,460,164	\$1,459,814	0.0%	\$1,461,000	\$1,460,000	-0.1%
7/1/12-13	\$778,348	\$788,103	\$778,348	-1.2%	\$742,998	\$763,038	\$742,998	-2.6%	\$807,000	\$779,000	-3.5%
7/1/13-14	\$806,844	\$807,927	\$806,844	-0.1%	\$773,047	\$785,336	\$773,808	-1.5%	\$810,000	\$807,000	-0,4%
7/1/14-15	\$1,633,386	\$1,638,779	\$1,643,386	0.3%	\$1,568,217	\$1,596,716	\$1,574,030	-1.4%	\$1,649,000	\$1,649,000	0.0%
7/1/15-16	\$1,763,087	\$1,781,422	\$1,686,295	-5.3%	\$1,607,814	\$1,684,958	\$1,636,015	-2.9%	\$1,816,000	\$1,701,000	-6.3%
7/1/16-17	\$2,448,996	\$2,485,907	\$2,511,382	1.0%	\$1,690,600	\$2,015,356	\$1,748,276	-13.3%	\$2,556,000	\$2,563,000	0.3%
7/1/17-18	\$1,616,250	\$1,667,410	\$1,499,593	-10.1%	\$590,742	\$989,555	\$799,130	-19.2%	\$1,768,000	\$1,678,000	-5.1%
7/1/18-19	\$1,623,731	\$1,740,721	\$1,916,027	10.1%	\$333,296	\$710,724	\$561,758	-21.0%	\$1,994,000	\$2,157,000	8.2%
7/1/19-20	\$1,084,651	\$1,260,483	\$1,472,605	16.8%	\$60,174	\$214,201	\$131,065	-38.8%	\$1,733,000	\$1,936,000	11.7%
7/1/20-21		\$729,879	\$789,033	8.1%		\$67,786	\$57,898	-14.6%	\$2,434,000	\$2,536,000	4.2%
Total	\$22,622,036	\$23,768,082	\$23,970,256	0.9%	\$18,215,803	\$19,682,167	\$18,874,869	-4.1%	\$26,435,844	\$26,682,844	0.9%

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 6/30/2020 (C) and (G) - Based on information available as of 6/30/2020 (D) and (H) - Exhibit 1-C
(E) = [(D) / (C)] - 1
(I) = [(H) / (G)] - 1
(K) - Exhibit 3

<sup>(</sup>L) = [(K)/(J)] - 1

# Projected Outstanding Losses As of June 30, 2021

(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Estimated	Projected	Projected	Limited	10110	0.1110.10
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$65,087	\$65,087	\$65,087	\$0	\$0	\$0
7/1/03-04	\$357,297	\$357,297	\$357,297	\$0	\$0	\$0
7/1/04-05	\$618,336	\$618,336	\$618,336	\$0	\$0	\$0
7/1/05-06	\$450,928	\$450,928	\$450,928	\$0	\$0	\$0
7/1/06-07	\$535,205	\$535,205	\$535,205	\$0	\$0	\$0
7/1/07-08	\$759,907	\$759,907	\$759,907	\$0	\$0	\$0
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	\$0	\$0	\$0
7/1/09-10	\$703,413	\$703,413	\$703,413	\$0	\$0	\$0
7/1/10-11	\$843,333	\$843,333	\$843,333	\$0	\$0	\$0
7/1/11-12	\$948,511	\$948,511	\$948,511	\$0	\$0	\$0
7/1/12-13	\$625,317	\$625,317	\$625,317	\$0	\$0	\$0
7/1/13-14	\$699,842	\$699,842	\$699,842	\$0	\$0	\$0
7/1/14-15	\$1,110,000	\$1,041,000	\$1,108,000	\$67,000	\$2,000	\$69,000
7/1/15-16	\$1,119,000	\$1,055,000	\$1,115,000	\$60,000	\$4,000	\$64,000
7/1/16-17	\$1,215,000	\$1,068,000	\$1,208,000	\$140,000	\$7,000	\$147,000
7/1/17-18	\$961,000	\$730,000	\$932,000	\$202,000	\$29,000	\$231,000
7/1/18-19	\$1,124,000	\$889,000	\$1,074,000	\$185,000	\$50,000	\$235,000
7/1/19-20	\$1,519,000	\$1,066,000	\$1,309,000	\$243,000	\$210,000	\$453,000
7/1/20-21	\$1,117,000	\$492,000	\$987,000	\$495,000	\$130,000	\$625,000
Total	\$16,196,000	\$14,371,522	\$15,763,522	\$1,392,000	\$432,000	\$1,824,000

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Projected using loss deveopment factors

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)

#### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B) Actual	(C) Expected	(D) Actual	(E)	(F) Actual	(G) Expected	(H) Actual	(1)	(J) Expected	(K) Actual	(L)
	Reported	Reported	Reported		Paid	Paid	Paid		Ultimate	Ultimate	
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	Difference
7/1/02-03	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	0.0%
7/1/03-04	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	0.0%
7/1/04-05	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	0.0%
7/1/05-06	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	0.0%
7/1/06-07	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	0.0%
7/1/07-08	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	0.0%
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	0.0%
7/1/09-10	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	0.0%
7/1/10-11	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	0.0%
7/1/11-12	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	0.0%
7/1/12-13	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	0.0%
7/1/13-14	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	0.0%
7/1/14-15	\$1,163,213	\$1,164,677	\$1,107,640	-4.9%	\$1,005,084	\$1,071,537	\$1,011,872	-5.6%	\$1,167,000	\$1,110,000	-4.9%
7/1/15-16	\$1,120,077	\$1,123,939	\$1,114,040	-0.9%	\$1,020,269	\$1,065,439	\$1,026,848	-3.6%	\$1,130,000	\$1,119,000	-1.0%
7/1/16-17	\$1,205,255	\$1,215,308	\$1,205,255	-0.8%	\$963,388	\$1,072,724	\$1,000,113	-6.8%	\$1,231,000	\$1,215,000	-1.3%
7/1/17-18	\$938,403	\$957,268	\$915,912	-4.3%	\$579,729	\$739,935	\$621,489	-16.0%	\$987,000	\$961,000	-2.6%
7/1/18-19	\$1,038,474	\$1,079,320	\$1,033,444	-4.3%	\$652,301	\$824,861	\$783,981	-5.0%	\$1,147,000	\$1,124,000	-2.0%
7/1/19-20	\$1,411,066	\$1,411,066	\$1,309,491	-7.2%	\$704,657	\$921,945	\$898,995	-2.5%	\$1,551,000	\$1,519,000	-2.1%
7/1/20-21		\$713,780	\$482,746	-32.4%		\$308,317	\$149,126	-51.6%	\$1,583,000	\$1,117,000	-29.4%
Total	\$14,907,010	\$15,695,881	\$15,199,051	-3.2%	\$12,955,950	\$14,035,280	\$13,522,946	-3.7%	\$16,826,522	\$16,195,522	-3.8%

<sup>(</sup>B), (F) and (J) – From Previous actuarial report as of 6/30/2020 (C) and (G) – Based on information available as of 6/30/2020 (D) and (H) - Exhibit 1-C
(E) = [(D) / (C]] – 1
(J) = [(H) / (G)] – 1
(K) - Exhibit 3
(L) = [(K) / (J)] – 1

### Projection of Outstanding Losses As of June 30, 2021

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Accident		Ultimate	Projected Paid	Projected Reported	Projected Case	IBNR	Outstanding
Period	SIR	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$100k/\$200k	\$312,045	\$312,045	\$312,045	\$0	\$0	\$0
7/1/03-04	\$100k/\$200k	\$1,287,169	\$1,287,169	\$1,287,169	\$0	\$0	\$0
7/1/04-05	\$100k/\$200k	\$1,266,993	\$1,266,993	\$1,266,993	\$0	\$0	\$0
7/1/05-06	\$100k/\$200k	\$2,616,997	\$2,616,997	\$2,616,997	\$0	\$0	\$0
7/1/06-07	\$100k/\$200k	\$2,604,514	\$2,604,514	\$2,604,514	\$0	\$0	\$0
7/1/07-08	\$100k/\$200k	\$3,915,481	\$3,915,481	\$3,915,481	\$0	\$0	\$0
7/1/08-09	\$100k/\$200k	\$4,560,396	\$4,560,396	\$4,560,396	\$0	\$0	\$0
7/1/09-10	\$100k/\$200k	\$4,870,041	\$4,870,041	\$4,870,041	\$0	\$0	\$0
7/1/10-11	\$100k/\$200k	\$3,569,472	\$3,569,472	\$3,569,472	\$0	\$0	\$0
7/1/11-12	\$250,000 /\$2.7M corridor	\$4,018,489	\$4,018,489	\$4,018,489	\$0	\$0	\$0
7/1/12-13	\$250,000 /\$2.4M corridor	\$5,432,675	\$5,432,675	\$5,432,675	\$0	\$0	\$0
7/1/13-14	\$250,000 /\$1.4M corridor	\$3,906,177	\$3,906,177	\$3,906,177	\$0	\$0	\$0
7/1/14-15	\$250,000 /\$1.4M corridor	\$5,130,000	\$4,896,525	\$5,123,459	\$226,933	\$7,000	\$233,000
7/1/15-16	\$250,000 /\$1.4M corridor	\$5,144,000	\$5,085,735	\$5,130,609	\$44,874	\$13,000	\$58,000
7/1/16-17	\$250,000 /\$1.4M corridor	\$6,149,000	\$6,036,025	\$6,114,644	\$78,618	\$34,000	\$113,000
7/1/17-18	\$250,000 /\$1.4M corridor	\$6,711,000	\$6,217,288	\$6,629,625	\$412,337	\$81,000	\$494,000
7/1/18-19	\$250,000 /\$1.4M corridor	\$6,192,000	\$5,957,184	\$6,035,057	\$77,872	\$157,000	\$235,000
7/1/19-20	\$250k/\$500k + \$1.4M corr.	\$11,122,000	\$9,904,947	\$10,440,299	\$535,352	\$682,000	\$1,217,000
7/1/20-21	\$250k/\$750k + \$3.0M corr.	\$13,497,000	\$8,476,138	\$11,606,954	\$3,130,816	\$1,890,000	\$5,021,000
Total		\$92,305,448	\$84,934,290	\$89,441,094	\$4,506,803	\$2,864,000	\$7,371,000

<sup>(</sup>C) - Ultimate losses are equal to limited reported losses in (E) through 10-11 Exhibit 3 for 11-12 to present

<sup>(</sup>D) and (E) - Projected using loss deveopment factors

<sup>(</sup>F) = (E) - (D)

<sup>(</sup>G)=(C)-(E)

<sup>(</sup>H) = (C) - (D)

### Oklahoma Schools Insurance Group

Property including Auto Physical Damage

### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Prior	Expected	Actual		Prior	Current	
	Reported	Reported	Reported		Ultimate	Ultimate	
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	Differenc
Period	0/30/2020	12/31/2020	12/31/2020	Dijjerence	0/30/2020	12/31/2020	Dijjerene
Limited to SIR							
7/1/11-12	\$3,282,543	\$3,282,543	\$3,282,543	0.0%	\$3,282,543	\$3,282,543	0.0%
7/1/12-13	\$3,032,675	\$3,032,675	\$3,032,675	0.0%	\$3,032,675	\$3,032,675	0.0%
7/1/13-14	\$2,506,177	\$2,506,177	\$2,506,177	0.0%	\$2,510,352	\$2,506,177	-0.2%
7/1/14-15	\$3,720,690	\$3,720,690	\$3,720,690	0.0%	\$3,740,662	\$3,730,000	-0.3%
7/1/15-16	\$3,724,762	\$3,732,711	\$3,724,762	-0.2%	\$3,744,000	\$3,744,000	0.0%
7/1/16-17	\$4,699,189	\$4,754,826	\$4,699,199	-1.2%	\$4,833,000	\$4,749,000	-1.7%
7/1/17-18	\$5,038,789	\$5,151,762	\$5,192,157	0.8%	\$5,310,000	\$5,311,000	0.0%
7/1/18-19	\$4,660,002	\$4,762,950	\$4,562,010	-4.2%	\$4,910,000	\$4,792,000	-2.4%
7/1/19-20	\$8,100,294	\$9,242,787	\$8,729,260	-5.6%	\$9,350,000	\$9,722,000	4.0%
7/1/20-21	90,100,254	\$4,311,381	\$3,782,666	-12.3%	\$10,497,000	\$10,497,000	0.0%
7/1/20-21		54,511,501	\$5,782,000	12.570	\$10,457,000	φ10,457,000	0.070
Total	\$38,765,120	\$44,498,500	\$43,232,139	-2.8%	\$51,210,232	\$51,366,394	0.3%
Unlimited							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$6,136,455	\$6,136,455	\$6,136,455	0.0%	\$6,136,455	\$6,136,455	0.0%
7/1/13-14	\$4,590,290	\$4,590,290	\$4,590,290	0.0%	\$4,590,290	\$4,590,290	0.0%
7/1/14-15	\$7,768,693	\$7,768,693	\$7,768,693	0.0%	\$7,787,000	\$7,800,000	0.2%
7/1/15-16	\$14,849,611	\$14,882,239	\$14,849,611	-0.2%	\$14,941,000	\$15,002,000	0.4%
7/1/16-17	\$11,283,323	\$11,357,082	\$11,283,333	-0.6%	\$11,474,000	\$11,583,000	0.9%
7/1/17-18	\$21,777,841		\$22,481,686	1.8%	\$22,496,000	\$24,033,000	6.8%
7/1/18-19	\$29,947,726		\$32,890,372	5.9%	\$32,439,000	\$38,849,000	19.8%
7/1/19-20	\$44,221,069	\$51,030,933	\$76,536,545	50.0%	\$52,528,000	#############	96.9%
7/1/20-21	J44,221,003	\$8,898,941	\$5,948,187	-33.2%	\$30,111,000	\$30,111,000	0.0%
Total	###########	***********	************	15.3%	###########	############	31.7%
CID : Cavidan							
SIR + Corridor	¢4.010.400	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/11-12	\$4,018,489			0.0%	\$5,432,675	\$5,432,675	0.0%
7/1/12-13	\$5,432,675	\$5,432,675	\$5,432,675				
7/1/13-14	\$3,906,177	\$3,906,177	\$3,906,177	0.0%	\$3,910,352	\$3,906,177	-0.1% -0.2%
7/1/14-15	\$5,120,690	\$5,120,690	\$5,120,690	0.0%	\$5,140,662	\$5,130,000	
7/1/15-16	\$5,124,762	\$5,132,711	\$5,124,762	-0.2%	\$5,144,000	\$5,144,000	0.0%
7/1/16-17	\$6,099,189	\$6,154,826	\$6,099,199	-0.9%	\$6,233,000	\$6,149,000	-1.3%
7/1/17-18	\$6,438,789	\$6,551,762	\$6,592,157	0.6%	\$6,710,000	\$6,711,000	0.0%
7/1/18-19	\$6,060,002	\$6,162,950	\$5,962,010	-3.3%	\$6,310,000	\$6,192,000	-1.9%
7/1/19-20	\$9,500,294	\$10,642,787	\$10,129,260	-4.8%	\$10,750,000	\$11,122,000	3.5%
7/1/20-21		\$7,311,381	\$5,948,187	-18.6%	\$13,497,000	\$13,497,000	0.0%

<sup>(</sup>B) and (F) - From Previous actuarial report as of 6/30/2020

<sup>(</sup>C) - Derived from (B) and (F) using loss development patterns

<sup>(</sup>D) - Exhibit 1-C

<sup>(</sup>E) = [(D)/(C)] - 1

<sup>(</sup>G) - Exhibit 3

<sup>(</sup>H) = [(G)/(F)] - 1



## Section 2

## Considerations

## Background

Oklahoma Schools Insurance Group was formed in 2002 to insure the liability and property exposures for member school districts in the state of Oklahoma. The group purchases excess insurance above a retention layer that varies by line of coverage. Arthur J. Gallagher Risk Management Services, Inc. manages OSIG. Select Actuarial Services has provided actuarial consulting services for OSIG, including loss forecasting and reserving studies since 2002.

## Scope

Select Actuarial Services has prepared this report for OSIG at the request of Jennifer McKenzie of Arthur J. Gallagher Risk Management Services, Program Manager for OSIG. The specific objectives are (a) to estimate ultimate and outstanding losses and ALAE for the group's property and liability experience as of December 31, 2020 and projected to June 30, 2021; and (b) to analyze the variability inherent in the losses by deriving estimates at various percentiles or confidence levels.

This report is an actuarial analysis of data, conditions, and practices communicated as of January 26, 2021, to Select Actuarial Services as described in this report. While Select Actuarial Services believes these communications to be reliable, it has not attempted to audit the information and cannot guarantee the accuracy of any information supplied. However, the data have been reviewed for reasonableness and internal consistency, comparing the claims experience from year to year, and comparing to prior evaluations.

We have not anticipated any extraordinary changes to the social, legal and economic environment that may affect the frequency, cost or future reporting and settlement patterns of claims. In addition, our estimates do not include any provision for future claims arising out of causes not represented in the current data.

### Use and Distribution

The actuarial estimates in this report are based upon appropriate actuarial assumptions and procedures described in the section of this report entitled "Description of Exhibits." Select Actuarial Services assumes no responsibility for any loss or damage that might arise from the use of or reliance upon this report other than for the purposes set forth herein.

This report was prepared for the use of and is only to be relied upon by the management of Oklahoma Schools Insurance Group. This report may also be provided to OSIG's auditors and insurance brokers. No portion of the report may be provided to any other party without Select Actuarial Services' prior



consent. In the event that such consent is provided, the report must be provided in its entirety. We recommend that any such party have its own actuary review this report to ensure that the party understands the assumptions and uncertainties inherent in our estimates.

### Qualifications and Standards of Practice

Laura Sprouse is a Fellow of the Casualty Actuarial Society and a Member of the American Academy of Actuaries. She meets the Qualification Standards of the American Academy of Actuaries to render actuarial opinions for property/casualty reserves. This report is prepared in accordance with Actuarial Standards of Practice No. 23, *Data Quality*, No. 41, *Actuarial Communications*, and No. 43, *Property/Casualty Unpaid Claim Estimates*.

## Coverage

OSIG began writing automobile liability, general liability, errors & omissions, auto physical damage and property coverage for member school districts in the state of Oklahoma in 2002. The Group retains \$100,000 combined loss and ALAE for liability losses per occurrence, above the member deductibles, which vary by member and by year. OSIG is further protected by aggregate coverage.

The group initially retained property losses of \$200,000 per occurrence for wind/hail related claims and \$100,000 for all other perils. Beginning with the 7/1/11-12 policy year, the per occurrence retention increased to \$250,000 for losses, with OSIG retaining most of the ALAE. Coverage also included a corridor deductible above the \$250,000 retention. Effective with the 7/1/19-20 policy year, the per occurrence retention for wind/hail related claims increased to \$500,000, and increased to \$750,000 for the 7/1/20-21 year.

### Available Data

Loss information was provided by Jennifer McKenzie, Program Manager for OSIG. This loss information included detail loss runs as of December 31, 2020 and at prior annual evaluations. Exposure data for each member was provided and included vehicle counts, student population and total insured value.

## Development

Development is the process in which losses and claim counts for a given accident period change over time. Development is caused by late reporting of claims, case reserve changes, claims reopening, and actual payment and settlement of claims.

Ideally, a client's own patterns should be utilized whenever possible to reflect the client's unique claims administration, reporting procedures, and so forth. Since several historical valuations of the data were available, we have selected patterns based on OSIG's development, supplemented with a benchmark for Oklahoma public entities. A curve-fitting technique is used to smooth and extrapolate the observed development patterns.



### **Actuarial Central Estimate**

The estimates of ultimate losses at the "expected" level in this analysis are actuarial central estimates - estimates that represent an expected value over the range of reasonably possible outcomes. Such a range of reasonably possible outcomes may not include all conceivable outcomes. For example, it would not include conceivable extreme events where the contribution of such events to an expected value estimate is not reliably measurable.

### Loss Models

Statistical distributions are often used by the insurance industry to model the loss generating process. In this analysis, the lognormal probability distribution has been used to model the required reserves. This technique allows for the projection of ultimate losses at the expected level and at various confidence levels or percentiles. The variation estimated in this modeling technique is the variation inherent in the historical experience; it does not include potential variation due to unanticipated changes in the environment or to misestimation of parameters. A Monte Carlo simulation was used to estimate the percentiles for the combined loss distributions for liability and property. This process randomly generates 10,000 sample outcomes for OSIG. The percentiles are based on these outcomes. For example, the 75<sup>th</sup> percentile estimate is a value that 7,500 of the outcomes are less than.

## Discounting

OSIG does not discount its loss reserves.

## Subrogation and Recoveries

We have used data net of recoveries other than excess and member deductibles throughout this analysis. The effect of such recoveries is therefore implicit in our calculations and no other reductions for collateral sources other than excess insurance and deductibles have been incorporated into the estimates.

## **Definitions**

**Accident Period:** All of the events with occurrence dates during a period specified make up the corresponding accident period. The dollars associated with those events total the accident period's losses, although they may be paid long after the end of the accident period. Losses are grouped by accident period throughout our analyses.

**Ultimate Losses:** The total amount that will eventually be paid on all losses for a particular accident period. Our estimate of the ultimate losses for an accident period is the sum of the paid losses, the case reserves, and the IBNR reserve.

Paid Losses: Dollars paid as of the latest available evaluation on losses incurred through the latest available evaluation.



Case Reserves: Reserves established on individual claims by the claims adjusters, as of the latest available evaluation. The case reserve plus the amount paid to date represents the adjuster's best estimate of the ultimate value of a particular claim.

Reported Losses: Paid losses plus case reserves as of the latest available evaluation.

**IBNR Reserve:** ("Incurred **B**ut **N**ot **R**eported") This is the dollar amount which we estimate will be added to the reported losses between the date when the losses were compiled and final settlement of all claims for the accident period. Some of these additional dollars will be added to claims which are already known and currently open but which will finally cost more than they are currently reserved for. Other of these dollars are associated with claims which are known and closed but will be reopened before final closure. The balance of the IBNR reserve is for late-reported events.

**Outstanding Losses:** The losses not yet paid. Outstanding losses equal the difference between the ultimate losses and the paid losses. They are also the sum of the case reserves and the IBNR reserve.

**Loss Development:** The change in the paid losses or the reported losses over time. As more information is provided, individual claim estimates get closer and closer to the ultimate value of the claims. The increase in the total reported losses through time is the reported loss development. Similarly, as losses are paid out over time, the increase in total paid losses is the paid loss development.



## Section 3

## Description of Exhibits

Actuarial procedures employed to project ultimate and outstanding losses consist of a number of steps. Exhibits representing the various steps in the process are explained in this section of the report.

## **Exhibit 1: Summary of Data**

Exhibit 1-A summarizes the number of reported claims, open claims, paid and reported losses, and exposures for each accident period evaluated as of December 31, 2020. In this Exhibit, all losses are shown gross of per occurrence retentions, but net of member deductibles.

Exhibit 1-B contains a listing of large claims that are expected to exceed the retention in effect during each claim's accident period. The applicable retentions are discussed in the "Considerations" section of this report.

In Exhibit 1-C, limited paid and reported losses are calculated by capping each claim at the applicable retention level for each accident period.

### Exhibit 2: Estimation Methods for Ultimate Losses

In Exhibit 2, reported and paid losses are developed to ultimate using various standard actuarial methods. Exhibit 2-A displays the reported and paid loss development methods. These methods apply the loss development factors derived in Appendix A to the reported and paid losses from Exhibit 1. Any individual claims which are expected to exceed the historic retention are first deducted from the aggregate losses before the factors are applied. Then a provision for the large claims equal to the retention plus an allowance for the probability of an as yet unreported large loss is added to the developed small losses to derive estimates of limited ultimate losses.

In Exhibit 2-B, the Bornhuetter-Ferguson methods are used to calculate additional estimates of ultimate losses. These methods, also referred to as the estimated unpaid and estimated unreported methods, combine the previous estimates of ultimate losses with current paid and reported losses to produce a blended estimate. The purpose of the Bornhuetter-Ferguson method is to dampen the effect of short-term swings in reporting and payment patterns that may not be reflective of long-term development. The estimates of ultimate losses for each policy year from the previous actuarial report are used as the a priori estimates for those years.

Property losses for years 7/1/11-12 through 7/1/20-21 are estimated both limited to the per occurrence retentions and on an unlimited basis.



### Exhibit 3: Selection of Ultimate Losses

The results of the estimation methods are compared in Exhibit 3, along with the prior estimate. A selection of our best estimate of the ultimate cost for each accident period is made based on the reasonableness of the various estimates when compared to loss experience to date, and the reasonableness of the estimates of ultimate losses and resulting unreported losses from year to year.

For Property, we have selected ultimate losses limited to the retention and unlimited. The difference in these estimates is compared to estimate the ultimate losses within the corridor.

## **Exhibit 4: Comparison to Previous Actuarial Report**

Exhibit 4 compares the current loss experience with projections based on previous actuarial studies. A comparison of this actual versus expected experience can help pinpoint changes in the ultimate losses and serves as a check of reasonableness. Exhibit 4-A compares to the 6/30/2020 study and Exhibit 4-B compares to the 1/31/2020 study.

## **Exhibit 5: Outstanding Losses**

Ultimate and outstanding losses as of December 31, 2020, are shown in Exhibit 5-A. Limited paid losses are subtracted from the ultimate losses to estimate outstanding losses. Similarly, limited reported losses are subtracted from the ultimate losses to estimate the IBNR reserves.

Exhibit 5-B shows the outstanding losses projected to June 30, 2021. The reported and paid losses as of June 30, 2020 are projected using the loss development factors in Appendix A.

## **Exhibit 6: Historical Summary**

This exhibit shows the ultimate number of claims, average claim size (severity), the rate of claims per \$1M payroll (claim frequency) and the rate of ultimate losses per exposure unit.

## Appendix A: Loss and Claim Development Factors

Selected loss development factors are fit to an inverse power curve in Appendices A1 through A3, in order to extrapolate factors at the maturities needed. The selected factors are based on the triangles shown in Appendices A4-A6. In Appendix A7 we measure the variability in the reported loss development history in order to select parameters for the lognormal distributions for each accident year.



# Section 4

## Exhibits – General Liability including E&O

Exhibit 1	Summary of Data Large Loss Listing Calculation of Limited Losses
Exhibit 2	Loss Development Methods Bornhuetter-Ferguson Methods
Exhibit 3	Summary and Selection of Ultimate Losses
Exhibit 4	Comparison to Previous Actuarial Report
Exhibit 5	Outstanding Losses as of 12/31/2020 Projected Outstanding Losses and IBNR as of 6/30/2021
Exhibit 6	Historical Claim Frequency, Severity and Loss Rates
Appendix A	Loss Development Factors

### Summary of Loss Data as of December 31, 2020 Total Experience Net of Member Deductibles

(A)	(B)	(C)	(L	0)	(E)	(F)	(G)	(H)
Accident Period	Evaluation Date	Maturity (months)	Total Claims	Open Claims	Loss and Expense Payments	Loss and Expense Reserves	Loss and Expense Incurred	Students
7/1/02-03	12/31/2020	222	28	0	\$168,909	\$0	\$168,909	
7/1/03-04	12/31/2020	210	88	0	\$848,061	\$0	\$848,061	
7/1/04-05	12/31/2020	198	115	0	\$525,685	\$0	\$525,685	198,498
7/1/05-06	12/31/2020	186	136	0	\$1,330,178	\$0	\$1,330,178	249,419
7/1/06-07	12/31/2020	174	132	0	\$1,351,835	\$0	\$1,351,835	267,684
7/1/07-08	12/31/2020	162	163	0	\$1,501,995	\$0	\$1,501,995	308,99
7/1/08-09	12/31/2020	150	155	0	\$2,172,804	\$0	\$2,172,804	313,47
7/1/09-10	12/31/2020	138	144	0	\$1,503,548	\$0	\$1,503,548	314,94
7/1/10-11	12/31/2020	126	110	1	\$2,417,910	\$16,851	\$2,434,762	356,970
7/1/11-12	12/31/2020	114	87	0	\$3,688,203	\$0	\$3,688,203	309,14
7/1/12-13	12/31/2020	102	109	2	\$1,063,466	\$35,349	\$1,098,816	282,16
7/1/13-14	12/31/2020	90	86	1	\$895,646	\$41,036	\$936,683	325,03
7/1/14-15	12/31/2020	78	117	4	\$2,134,516	\$109,481	\$2,243,996	381,15
7/1/15-16	12/31/2020	66	120	4	\$1,832,574	\$50,280	\$1,882,854	381,20
7/1/16-17	12/31/2020	54	136	18	\$2,914,765	\$823,107	\$3,737,872	393,46
7/1/17-18	12/31/2020	42	77	17	\$802,443	\$1,119,383	\$1,921,826	393,70
7/1/18-19	12/31/2020	30	112	31	\$561,758	\$2,221,698	\$2,783,456	448,67
7/1/19-20	12/31/2020	18	95	45	\$131,065	\$1,397,541	\$1,528,605	482,17
7/1/20-21	12/31/2020	6	48	41	\$57,898	\$797,635	\$855,533	485,91
7/1/21-22					ONE GAPLE E		0.41 7667 3	485,91
			2,058	164	\$25,903,258	\$6,612,361	\$32,515,619	6,378,53

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

<sup>-</sup> Claims are grouped by occurrence, exclude claims with \$0 incurred

<sup>-</sup> Losses are net of member deductibles

#### Large Claim Listing

Occurrence #	Schaol	Loss Date	Net Paid	Net Incurred	Policy Year	SIR	Excess Recoveries	Excess Reported	Severity Factor	Ultima Net
00286	BOISE CITY ISD	5/3/2004	\$107,737	\$107,737	7/1/03-04	\$100,000	\$7,787	\$7,787	1.000	\$107,
00709	HARDESTY ISD	9/1/2004	\$136,712	\$136,712	7/1/04-05	\$100,000	\$36,712	\$36,712	1.000	\$136,
00919	MANNFORD PUBLIC SCHOOL	10/31/2005	\$139,329	\$139,329	7/1/05-06	\$100,000	\$39,329	\$39,329	1.000	\$139,
00951	GORE ISD #6	1/9/2006	\$137,400	\$137,400	7/1/05-06	\$100,000	\$37,400	\$37,400	1,000	\$137,
01194	OOLOGAH TALALA ISD	7/7/2006	\$104,657	\$104,657	7/1/06-07	\$100,000	\$4,657	\$4,657	1.000	\$104,
01213	POCOLA ISD	7/26/2006	\$113,021	\$113,021	7/1/06-07	\$100,000	\$13,021	\$13,021	1.000	\$113,
02076	DEER CREEK ISD	4/6/2007	\$470,603	\$470,603	7/1/06-07	\$100,000	\$370,603	\$370,603	1.000	\$470
01955	MIDWAY PUBLIC SCHOOL	5/15/2007	\$110,316	\$110,316	7/1/06-07	\$100,000	\$10,316	\$10,316	1.000	\$110
02387	KIAMICHI TECHNOLOGY CENTER	7/31/2007	\$102,095	\$102,095	7/1/07-08	\$100,000	\$2,095	\$2,095	1.000	\$102
02047	POTEAU ISD	10/19/2007	\$102,093	\$102,093	7/1/07-08	\$100,000	\$9,798	\$9,798	1.000	\$102
01968	GUTHRIE PUBLIC SCHOOLS	11/2/2007	\$121,452	\$121,452	7/1/07-08	\$100,000	\$26,452	\$26,452	1.000	\$121
	BLANCHARD PUBLIC SCHOOL	4/25/2008	\$131,036	\$131,036	7/1/07-08	\$100,000	\$31,036	\$31,036	1,000	\$131
02250								\$975,745	1.000	\$1,07
02595	BYNG SCHOOL DISTRICT I-16	10/20/2008	\$1,075,745	\$1,075,745	7/1/08-09	\$100,000 \$100,000	\$975,745	\$24,447	1.000	\$1,07
02711	SHAWNEE PUBLIC SCHOOL	1/13/2009	\$124,447	\$124,447	7/1/08-09		\$24,447			
03297	BIXBY PUBLIC SCHOOLS	5/28/2009	\$113,070	\$113,070	7/1/08-09	\$100,000	\$13,070	\$13,070	1.000	\$113
03267	LAWTON BOARD OF EDUCATION ISD#8	11/4/2009	\$107,144	\$107,144	7/1/09-10	\$100,000	\$7,144	\$7,144	1.000	\$107
03567	OOLOGAH TALALA ISD	2/18/2010	\$117,345	\$117,345	7/1/09-10	\$100,000	\$19,845	\$19,845	1,000	\$117
90906	MOUNDS PUBLIC SCHOOLS	5/10/2010	\$304,711	\$304,711	7/1/09-10	\$100,000	\$204,711	\$204,711	1.000	\$304
90054	CANTON ISD	7/29/2010	\$114,574	\$114,574	7/1/10-11	\$100,000	\$17,074	\$17,074	1.000	\$114
90084	PUTNAM CITY ISD	8/22/2010	\$115,615	\$115,615	7/1/10-11	\$100,000	\$15,615	\$15,615	1.000	\$115
90118	JAY PUBLIC SCHOOLS	9/1/2010	\$136,645	\$136,645	7/1/10-11	\$100,000	\$36,645	\$36,645	1,000	\$136
90205	HOMINY BOARD OF EDUCATION	10/14/2010	\$123,444	\$123,444	7/1/10-11	\$100,000	\$23,444	\$23,444	1.000	\$123
90236	ARDMORE ISD #19	10/25/2010	\$290,942	\$290,942	7/1/10-11	\$100,000	\$190,942	\$190,942	1.000	\$290
90297	LAWTON BOARD OF EDUCATION ISD#8	12/6/2010	\$157,221	\$157,221	7/1/10-11	\$100,000	\$62,221	\$62,221	1.000	\$157
90313	BOSWELL PUBLIC SCHOOL	12/14/2010	\$104,163	\$104,163	7/1/10-11	\$100,000	\$6,663	\$6,663	1,000	\$104
90519	VERDIGRIS PUBLIC SCHOOL	3/11/2011	\$122,502	\$122,502	7/1/10-11	\$100,000	\$22,502	\$22,502	1.000	\$122
90708	CHOUTEAU MAZIE SCHOOL DISTRICT	3/22/2011	\$141,522	\$141,522	7/1/10-11	\$100,000	\$41,522	\$41,522	1.000	\$141
90838	TAHLEQUAH PUBLIC SCHOOL	6/30/2011	\$280,047	\$280,047	7/1/10-11	\$100,000	\$180,047	\$180,047	1.000	\$280
91394	ALTUS PUBLIC SCHOOL	9/1/2011	\$149,418	\$149,418	7/1/11-12	\$100,000	\$49,418	\$49,418	1,000	\$149
91014	PADEN PUBLIC SCHOOL	10/13/2011	\$153,190	\$153,190	7/1/11-12	\$100,000	\$53,190	\$53,190	1.000	\$153
91388	NOWATA ISD	10/25/2011	\$443,010	\$443,010	7/1/11-12	\$100,000	\$343,010	\$343,010	1.000	\$443
91040	MCLOUD ISD	11/11/2011	\$1,708,795	\$1,708,795	7/1/11-12	\$200,000	\$1,508,795	\$1,508,795	1.000	\$1,70
91405	FAIRLAND ISD	4/20/2012	\$263,443	\$263,443	7/1/11-12	\$100,000	\$163,443	\$163,443	1,000	\$263
91564	LAWTON BOARD OF EDUCATION ISD#8	5/28/2012	\$210,533	\$210,533	7/1/11-12	\$100,000	\$110,533	\$110,533	1.000	\$210
										\$420
91445	CHOUTEAU MAZIE SCHOOL DISTRICT	8/29/2012	\$420,468	\$420,468	7/1/12-13	\$100,000	\$320,468	\$320,468	1.001	
92222	SPIRO PUBLIC SCHOOLS	12/23/2013	\$145,266	\$145,266	7/1/13-14	\$100,000	\$45,266	\$45,266	1.001	\$145
92382	BROKEN ARROW PUBLIC SCHOOLS	1/29/2014	\$100,352	\$100,352	7/1/13-14	\$100,000	\$352	\$352	1,001	\$100
92492	COMMERCE ISD #18	4/1/2014	\$66,964	\$108,000	7/1/13-14	\$100,000	\$0	\$8,000	1.001	\$108
92867	HOLLIS ISD	4/4/2014	\$176,221	\$176,221	7/1/13-14	\$100,000	\$76,221	\$76,221	1.001	\$176
92975	TALOGA ISD #10	9/1/2014	\$111,339	\$140,125	7/1/14-15	\$100,000	\$0	\$40,125	1.003	\$140
92999	SAPULPA ISD	3/2/2015	\$240,862	\$240,862	7/1/14-15	\$100,000	\$140,862	\$140,862	1.003	\$241
93289	JAY PUBLIC SCHOOLS	3/22/2015	\$211,827	\$211,827	7/1/14-15	\$100,000	\$111,827	\$111,827	1.003	\$212
94241	LUTHER PUBLIC SCHOOLS	4/16/2015	\$366,221	\$366,221	7/1/14-15	\$100,000	\$266,221	\$266,221	1.003	\$367
93143	POTEAU ISD	5/15/2015	\$141,576	\$141,576	7/1/14-15	\$100,000	\$41,576	\$41,576	1.003	\$142
93680	ARDMORE ISD #19	3/7/2016	\$175,028	\$175,028	7/1/15-16	\$100,000	\$75,028	\$75,028	1.008	\$176
94063	KIAMICHI TECHNOLOGY CENTER	3/24/2016	\$153,730	\$153,730	7/1/15-16	\$100,000	\$53,730	\$53,730	1.008	\$155
94446	VIAN PUBLIC SCHOOLS	5/5/2016	\$167,801	\$167,801	7/1/15-16	\$100,000	\$67,801	\$67,801	1.008	\$169
25-16-94168	NEWKIRK PUBLIC SCHOOLS	11/3/2016	\$98,130	\$98,130	7/1/16-17	\$100,000	\$0	\$0	1.021	\$100
94291	MORRIS ISD #3	12/16/2016	\$141,328	\$141,328	7/1/16-17	\$100,000	\$41,328	\$41,328	1.021	\$144
94280	PERRY ISD	1/27/2017	\$1,325,161	\$1,325,161	7/1/16-17	\$200,000	\$1,125,161	\$1,125,161	1.021	\$1,35
95484	PONCA CITY ISD	6/26/2017	\$68,381	\$160,000	7/1/16-17	\$100,000	\$0	\$60,000	1.021	\$163
96032	JENKS ISD	9/12/2017	\$69,399	\$160,000	7/1/17-18	\$100,000	\$0	\$60,000	1.053	\$168
95106	PIEDMONT ISD	9/14/2017	\$23,759	\$141,500	7/1/17-18	\$100,000	\$0	\$41,500	1.053	\$148
95506	PRESTON PUBLIC SCHOOL	1/11/2018	\$12,887	\$167,582	7/1/17-18	\$100,000	\$0	\$67,582	1.053	\$176
94898	COYLE PUBLIC SCHOOL	1/25/2018	\$85,804	\$119,000	7/1/17-18	\$100,000	\$0	\$19,000	1.053	\$125
25-18-95394	COYLE PUBLIC SCHOOL	1/25/2018	\$66,787	\$96,000	7/1/17-18	\$100,000	\$0	\$0	1.053	\$101
25-18-95168	HARRAH ISD	3/2/2018	\$41,094	\$95,958	7/1/17-18	\$100,000	\$0	\$0	1.053	\$101
95055	MIDWEST CITY-DEL CITY ISD	5/3/2018	\$9,913	\$117,850	7/1/17-18	\$100,000	\$0	\$17,850	1.053	\$124
95249	BROKEN ARROW PUBLIC SCHOOLS	5/15/2018	\$103,313		7/1/17-18	\$100,000	\$3,313	\$216,301	1.053	\$332
				\$316,301						
95302	MACOMB PUBLIC SCHOOL	7/25/2018	\$17,101	\$111,500	7/1/18-19	\$100,000	\$0	\$11,500	1.136	\$126
95270	INDIANOLA PUBLIC SCHOOL	9/4/2018	\$30,929	\$112,333	7/1/18-19	\$100,000	\$0	\$12,333	1,136	\$127
95512	PUTNAM CITY ISD	9/29/2018	\$25,909	\$196,000	7/1/18-19	\$100,000	\$0	\$96,000	1.136	\$222
96372	VALLIANT ISD	2/20/2019	\$19,103	\$111,729	7/1/18-19	\$100,000	\$0	\$11,729	1.136	\$126
96369	SALINA ISD	3/14/2019	\$16,392	\$801,668	7/1/18-19	\$100,000	\$0	\$701,668	1.136	\$910
96161	HARRAH ISD	3/15/2019	\$6,165	\$127,000	7/1/18-19	\$100,000	\$0	\$27,000	1.136	\$144
95837	BERRYHILL ISD #10	4/29/2019	\$37,812	\$107,200	7/1/18-19	\$100,000	\$0	\$7,200	1.136	\$121
96788	AUSKOGEE PUBLIC SCHOOL DISTRICT 1-21	12/4/2019	\$0	\$128,000	7/1/19-20	\$100,000	\$0	\$28,000	1.350	\$172
96285	ADA ISD	12/5/2019	\$0	\$128,000	7/1/19-20	\$100,000	\$0	\$28,000	1.350	\$172
25-20-96661	STILLWATER PUBLIC SCHOOLS	8/27/2020	\$11,776	\$90,000	7/1/20-21	\$100,000	\$0	\$0	1.648	\$148
96736	NEWKIRK PUBLIC SCHOOLS	10/6/2020	\$0	\$128,000	7/1/20-21	\$100,000	\$0	\$28,000	1.648	\$211
96723	CYRIL PUBLIC SCHOOLS	10/12/2020	\$0	\$138,500	7/1/20-21	\$100,000	\$0	\$38,500	1.648	\$228
	MARYETTA ISD #22	10/27/2020	400	\$75,000	7/1/20-21	\$100,000	\$0	\$0		\$123

\$12,837,550 \$15,882,900

\$7,028,389 \$8,545,362

### Oklahoma Schools Insurance Group

General Liability including E&O

### Calculation of Limited Losses

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
		Unlimited	Unlimited	Paid	Reported	Paid	Reported
Policy		Paid	Reported	Excess of	Excess of	Limited to	Limited to
Period	Retention	Losses	Losses	Primary	Primary	Primary	Primary
7/1/02-03	\$100,000	\$168,909	\$168,909	\$0	\$0	\$168,909	\$168,909
7/1/03-04	\$100,000	\$848,061	\$848,061	\$7,787	\$7,787	\$840,274	\$840,274
7/1/04-05	\$100,000	\$525,685	\$525,685	\$36,712	\$36,712	\$488,972	\$488,972
7/1/05-06	\$100,000	\$1,330,178	\$1,330,178	\$76,729	\$76,729	\$1,253,449	\$1,253,449
7/1/06-07	\$100,000	\$1,351,835	\$1,351,835	\$398,598	\$398,598	\$953,237	\$953,237
7/1/07-08	\$100,000	\$1,501,995	\$1,501,995	\$69,380	\$69,380	\$1,432,614	\$1,432,614
7/1/08-09	\$100,000	\$2,172,804	\$2,172,804	\$1,013,263	\$1,013,263	\$1,159,541	\$1,159,541
7/1/09-10	\$100,000	\$1,503,548	\$1,503,548	\$231,700	\$231,700	\$1,271,848	\$1,271,848
7/1/10-11	\$100,000	\$2,417,910	\$2,434,762	\$596,676	\$596,676	\$1,821,235	\$1,838,086
7/1/11-12	\$100,000	\$3,688,203	\$3,688,203	\$2,228,390	\$2,228,390	\$1,459,814	\$1,459,814
7/1/12-13	\$100,000	\$1,063,466	\$1,098,816	\$320,468	\$320,468	\$742,998	\$778,348
7/1/13-14	\$100,000	\$895,646	\$936,683	\$121,838	\$129,838	\$773,808	\$806,844
7/1/14-15	\$100,000	\$2,134,516	\$2,243,996	\$560,486	\$600,611	\$1,574,030	\$1,643,386
7/1/15-16	\$100,000	\$1,832,574	\$1,882,854	\$196,559	\$196,559	\$1,636,015	\$1,686,295
7/1/16-17	\$100,000	\$2,914,765	\$3,737,872	\$1,166,489	\$1,226,489	\$1,748,276	\$2,511,382
7/1/17-18	\$100,000	\$802,443	\$1,921,826	\$3,313	\$422,233	\$799,130	\$1,499,593
7/1/18-19	\$100,000	\$561,758	\$2,783,456	\$0	\$867,429	\$561,758	\$1,916,027
7/1/19-20	\$100,000	\$131,065	\$1,528,605	\$0	\$56,000	\$131,065	\$1,472,605
7/1/20-21	\$100,000	\$57,898	\$855,533	\$0	\$66,500	\$57,898	\$789,033
Total		\$25,903,258	\$32,515,619	\$7,028,389	\$8,545,362	\$18,874,869	\$23,970,25

<sup>(</sup>C) and (D) - Exhibit 1-A

<sup>(</sup>E) and (F) - Excess amounts from claims in Exhibit 1-B

<sup>(</sup>G) = (C) - (E)

<sup>(</sup>H)=(D)-(F)

#### **Estimated Ultimate Losses Limited to OSIG Retentions Using Loss Development Methods**

(A)	(B)	(C) Net	(D)	(E)	(F)	(G) Estimated
	Net	Reported	Reported	Ultimate	Provision	Ultimate
Accident	Reported	on Large	Develop.	on Small	for Large	Net
Period	Losses	Losses	Factor	Claims	Claims	Losses
7/1/02-03	\$168,909	\$0	1.000	\$168,909	\$0	\$169,000
7/1/03-04	\$848,061	\$107,737	1,000	\$740,324	\$100,000	\$840,000
7/1/04-05	\$525,685	\$136,712	1.000	\$388,973	\$100,000	\$489,000
7/1/05-06	\$1,330,178	\$276,729	1.000	\$1,053,451	\$200,000	\$1,253,000
7/1/06-07	\$1,351,835	\$798,598	1.000	\$553,240	\$400,000	\$953,000
7/1/07-08	\$1,501,995	\$464,380	1.000	\$1,037,625	\$400,000	\$1,438,000
7/1/08-09	\$2,172,804	\$1,313,263	1.000	\$859,560	\$300,000	\$1,160,000
7/1/09-10	\$1,503,548	\$529,200	1.000	\$974,397	\$300,000	\$1,274,000
7/1/10-11	\$2,434,762	\$1,586,676	1.000	\$848,182	\$1,000,001	\$1,848,000
7/1/11-12	\$3,688,203	\$2,928,390	1.000	\$760,010	\$700,001	\$1,460,000
7/1/12-13	\$1,098,816	\$420,468	1.001	\$678,755	\$100,000	\$779,000
7/1/13-14	\$936,683	\$529,838	1.001	\$407,421	\$400,002	\$807,000
7/1/14-15	\$2,243,996	\$1,100,611	1.003	\$1,147,279	\$500,006	\$1,647,000
7/1/15-16	\$1,882,854	\$496,559	1.008	\$1,397,847	\$300,010	\$1,698,000
7/1/16-17	\$3,737,872	\$1,724,619	1.021	\$2,055,109	\$500,048	\$2,555,000
7/1/17-18	\$1,921,826	\$1,214,191	1.053	\$745,082	\$800,278	\$1,545,000
7/1/18-19	\$2,783,456	\$1,567,429	1.138	\$1,383,288	\$701,144	\$2,084,000
7/1/19-20	\$1,528,605	\$256,000	1.365	\$1,737,638	\$202,288	\$1,940,000
Total	\$31,660,085	\$15,451,400		\$16,937,090	\$7,003,779	\$23,939,00

	(H)	(I) Net	(1)	(K)	(L)	(M) Estimated
	Net	Paid	Paid	Ultimate	Provision	Ultimate
Accident	Paid	on Large	Develop.	on Small	for Large	Net
Period	Losses	Losses	Factor	Claims	Claims	Losses
7/1/02-03	\$168,909	\$0	1.000	\$168,910	\$0	\$169,000
7/1/03-04	\$848,061	\$107,737	1.000	\$740,332	\$100,000	\$840,000
7/1/04-05	\$525,685	\$136,712	1.000	\$388,979	\$100,000	\$489,000
7/1/05-06	\$1,330,178	\$276,729	1.000	\$1,053,481	\$200,000	\$1,253,000
7/1/06-07	\$1,351,835	\$798,598	1.000	\$553,267	\$400,000	\$953,000
7/1/07-08	\$1,501,995	\$464,380	1.000	\$1,037,713	\$400,000	\$1,438,000
7/1/08-09	\$2,172,804	\$1,313,263	1.000	\$859,691	\$300,000	\$1,160,000
7/1/09-10	\$1,503,548	\$529,200	1.000	\$974,671	\$300,000	\$1,275,000
7/1/10-11	\$2,417,910	\$1,586,676	1.001	\$831,779	\$1,000,001	\$1,832,000
7/1/11-12	\$3,688,203	\$2,928,390	1.001	\$760,838	\$700,001	\$1,461,000
7/1/12-13	\$1,063,466	\$420,468	1.003	\$644,867	\$100,000	\$745,000
7/1/13-14	\$895,646	\$488,802	1.007	\$409,536	\$400,002	\$810,000
7/1/14-15	\$2,134,516	\$1,071,826	1.016	\$1,079,709	\$500,006	\$1,580,000
7/1/15-16	\$1,832,574	\$496,559	1.042	\$1,391,657	\$300,010	\$1,692,000
7/1/16-17	\$2,914,765	\$1,633,000	1.118	\$1,432,826	\$500,048	\$1,933,000
7/1/17-18	\$802,443	\$412,957	1.369	\$533,159	\$800,278	\$1,333,000
7/1/18-19	\$561,758	\$153,410	2.305	\$941,240	\$701,144	\$1,642,000
7/1/19-20	\$131,065	\$0	6.374	\$835,460	\$202,288	\$1,038,000
Total	\$25,845,360	\$12,818,706		\$14,638,115	\$7,003,779	\$21,643,00

(B) and (H)- Exhibit 1-A

(C) and (I) - Exhibit 1-B

(D) - Appendix A1

(G) = (E) + (F)

(J) - Appendix A2

 $(K) = [(H) - (I)] \times (J)$ 

(M)=(K)+(L)

#### Estimated Ultimate Losses Limited to OSIG Retention Using Bornhuetter-Ferguson Method

(A)	(B) Prior	(C) Reported	(D)	(E) Expected	(F) Limited	(G) Estimated
Accident	Ultimate or	Develop.	Expected %	Unreported	Reported	Ultimate
Period	Forecast	Factor	Unreported	Losses	Losses	Losses
7/1/02-03	\$168,909	1.000	0%	\$0	\$168,909	\$169,000
7/1/03-04	\$840,274	1.000	0%	\$0	\$840,274	\$840,000
7/1/04-05	\$488,972	1.000	0%	\$1	\$488,972	\$489,000
7/1/05-06	\$1,253,449	1.000	0%	\$3	\$1,253,449	\$1,253,000
7/1/06-07	\$953,237	1.000	0%	\$5	\$953,237	\$953,000
7/1/07-08	\$1,432,614	1.000	0%	\$15	\$1,432,614	\$1,433,000
7/1/08-09	\$1,159,541	1.000	0%	\$26	\$1,159,541	\$1,160,000
7/1/09-10	\$1,271,848	1.000	0%	\$64	\$1,271,848	\$1,272,000
7/1/10-11	\$1,839,000	1.000	0%	\$208	\$1,838,086	\$1,838,000
7/1/11-12	\$1,461,000	1,000	0%	\$378	\$1,459,814	\$1,460,000
7/1/12-13	\$807,000	1.001	0%	\$484	\$778,348	\$779,000
7/1/13-14	\$810,000	1.001	0%	\$1,146	\$806,844	\$808,000
7/1/14-15	\$1,649,000	1.003	0%	\$5,595	\$1,643,386	\$1,649,000
7/1/15-16	\$1,816,000	1.008	1%	\$15,008	\$1,686,295	\$1,701,000
7/1/16-17	\$2,556,000	1.021	2%	\$52,058	\$2,511,382	\$2,563,000
7/1/17-18	\$1,768,000	1.053	5%	\$88,859	\$1,499,593	\$1,588,000
7/1/18-19	\$1,994,000	1.138	12%	\$241,106	\$1,916,027	\$2,157,000
7/1/19-20	\$1,733,000	1.365	27%	\$463,791	\$1,472,605	\$1,936,000
7/1/20-21	\$2,434,000	3,544	72%	\$1,747,155	\$789,033	\$2,536,000
Total	\$26,435,844			\$2,615,903	\$23,970,256	\$26,584,00

	(H) Prior	(I) Paid	(1)	(K) Expected	(L) Limited	(M) Estimated
Accident	Ultimate or	Develop.	Expected %	Unpaid	Paid	Ultimate
Period	Forecast	Factor	Unpaid	Losses	Losses	Losses
7/1/02-03	\$168,909	1.000	0%	\$1	\$168,909	\$169,000
7/1/03-04	\$840,274	1.000	0%	\$9	\$840,274	\$840,000
7/1/04-05	\$488,972	1,000	0%	\$9	\$488,972	\$489,000
7/1/05-06	\$1,253,449	1.000	0%	\$38	\$1,253,449	\$1,253,000
7/1/06-07	\$953,237	1,000	0%	\$51	\$953,237	\$953,000
7/1/07-08	\$1,432,614	1.000	0%	\$136	\$1,432,614	\$1,433,000
7/1/08-09	\$1,159,541	1.000	0%	\$202	\$1,159,541	\$1,160,000
7/1/09-10	\$1,271,848	1.000	0%	\$422	\$1,271,848	\$1,272,000
7/1/10-11	\$1,839,000	1.001	0%	\$1,204	\$1,821,235	\$1,822,000
7/1/11-12	\$1,461,000	1.001	0%	\$1,967	\$1,459,814	\$1,462,000
7/1/12-13	\$807,000	1.003	0%	\$2,339	\$742,998	\$745,000
7/1/13-14	\$810,000	1.007	1%	\$5,324	\$773,808	\$779,000
7/1/14-15	\$1,649,000	1.016	2%	\$25,992	\$1,574,030	\$1,600,000
7/1/15-16	\$1,816,000	1.042	4%	\$72,609	\$1,636,015	\$1,709,000
7/1/16-17	\$2,556,000	1,118	11%	\$269,477	\$1,748,276	\$2,018,000
7/1/17-18	\$1,768,000	1.369	27%	\$476,431	\$799,130	\$1,276,000
7/1/18-19	\$1,994,000	2.305	57%	\$1,128,921	\$561,758	\$1,691,000
7/1/19-20	\$1,733,000	6.374	84%	\$1,461,132	\$131,065	\$1,592,000
7/1/20-21	\$2,434,000	37.181	97%	\$2,368,536	\$57,898	\$2,426,000
Total	\$26,435,844			\$5,814,799	\$18,874,869	\$24,689,00

(B) and (H) - Exhibit 3 (C) - Appendix A1 (D) = 1 - 1/(C) (E) = (B) \* (D) (F) and (L) - Exhibit I-C (G) = (E) + (F)

(I) - Appendix A2 (J) = 1 - 1/(I) (K) = (H) \* (J)

(M) = (K) + (L)

### **Summary and Selection of Ultimate Limited Loss Estimates**

(A)	(B)	(C)	(D)	(E)	(F)	(G)
		Reported Loss	Paid Loss	Expected	Expected	Selected Ultimate
Accident	Prior	Development	Development	Unreported	Unpaid	Loss
Period	Ultimate	Method	Method	Method	Method	Estimate
			- SS 2- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3-			
7/1/02-03	\$168,909	\$169,000	\$169,000	\$169,000	\$169,000	\$168,909
7/1/03-04	\$840,274	\$840,000	\$840,000	\$840,000	\$840,000	\$840,274
7/1/04-05	\$488,972	\$489,000	\$489,000	\$489,000	\$489,000	\$488,972
7/1/05-06	\$1,253,449	\$1,253,000	\$1,253,000	\$1,253,000	\$1,253,000	\$1,253,449
7/1/06-07	\$953,237	\$953,000	\$953,000	\$953,000	\$953,000	\$953,237
7/1/07-08	\$1,432,614	\$1,438,000	\$1,438,000	\$1,433,000	\$1,433,000	\$1,432,614
7/1/08-09	\$1,159,541	\$1,160,000	\$1,160,000	\$1,160,000	\$1,160,000	\$1,159,541
7/1/09-10	\$1,271,848	\$1,274,000	\$1,275,000	\$1,272,000	\$1,272,000	\$1,271,848
7/1/10-11	\$1,839,000	\$1,848,000	\$1,832,000	\$1,838,000	\$1,822,000	\$1,848,000
7/1/11-12	\$1,461,000	\$1,460,000	\$1,461,000	\$1,460,000	\$1,462,000	\$1,460,000
7/1/12-13	\$807,000	\$779,000	\$745,000	\$779,000	\$745,000	\$779,000
7/1/13-14	\$810,000	\$807,000	\$810,000	\$808,000	\$779,000	\$807,000
7/1/14-15	\$1,649,000	\$1,647,000	\$1,580,000	\$1,649,000	\$1,600,000	\$1,649,000
7/1/15-16	\$1,816,000	\$1,698,000	\$1,692,000	\$1,701,000	\$1,709,000	\$1,701,000
7/1/16-17	\$2,556,000	\$2,555,000	\$1,933,000	\$2,563,000	\$2,018,000	\$2,563,000
7/1/17-18	\$1,768,000	\$1,545,000	\$1,333,000	\$1,588,000	\$1,276,000	\$1,678,000
7/1/18-19	\$1,994,000	\$2,084,000	\$1,642,000	\$2,157,000	\$1,691,000	\$2,157,000
7/1/19-20	\$1,733,000	\$1,940,000	\$1,038,000	\$1,936,000	\$1,592,000	\$1,936,000
7/1/20-21	\$2,434,000			\$2,536,000	\$2,426,000	\$2,536,000
Total	\$26,435,844	\$23,939,000	\$21,643,000	\$26,584,000	\$24,689,000	\$26,682,84

<sup>(</sup>B) - From Previous Report as of 6/30/2020

Limited Reported Losses for 02-03 through 09-10

<sup>(</sup>C) and (D) - Exhibit 2-A

<sup>(</sup>E) and (F) - Exhibit 2-B

<sup>(</sup>G) - Selected as Noted:

<sup>(</sup>C) for 10-11 through 13-14

<sup>(</sup>E) for 14-15 through 16-17, and 18-19 through 20-21

Average of (B) and (F) for 17-18

#### Oklahoma Schools Insurance Group General Liability including E&O

#### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B) Actual	(C) Expected	(D) Actual	(E)	(F) Actual	(G) Expected	(H) Actual	W	(J) Expected	(K) Actual	(L)
	Reported	Reported	Reported		Paid	Paid	Paid		Ultimate	Ultimate	
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	Difference
7/1/02-03	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	0,0%
7/1/03-04	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	0.0%
7/1/04-05	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	0.0%
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	0.0%
7/1/06-07	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	0.0%
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	0.0%
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	0.0%
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	0.0%
7/1/10-11	\$1,838,086	\$1,838,392	\$1,838,086	0.0%	\$1,820,257	\$1,825,489	\$1,821,235	-0.2%	\$1,839,000	\$1,848,000	0.5%
7/1/11-12	\$1,459,814	\$1,460,214	\$1,459,814	0.0%	\$1,459,814	\$1,460,164	\$1,459,814	0.0%	\$1,461,000	\$1,460,000	-0.1%
7/1/12-13	\$778,348	\$788,103	\$778,348	-1.2%	\$742,998	\$763,038	\$742,998	-2.6%	\$807,000	\$779,000	-3.5%
7/1/13-14	\$806,844	\$807,927	\$806,844	-0.1%	\$773,047	\$785,336	\$773,808	-1.5%	\$810,000	\$807,000	-0.4%
7/1/14-15	\$1,633,386	\$1,638,779	\$1,643,386	0.3%	\$1,568,217	\$1,596,716	\$1,574,030	-1.4%	\$1,649,000	\$1,649,000	0.0%
7/1/15-16	\$1,763,087	\$1,781,422	\$1,686,295	-5.3%	\$1,607,814	\$1,684,958	\$1,636,015	-2.9%	\$1,816,000	\$1,701,000	-6.3%
7/1/16-17	\$2,448,996	\$2,485,907	\$2,511,382	1.0%	\$1,690,600	\$2,015,356	\$1,748,276	-13.3%	\$2,556,000	\$2,563,000	0.3%
7/1/17-18	\$1,616,250	\$1,667,410	\$1,499,593	-10.1%	\$590,742	\$989,555	\$799,130	-19.2%	\$1,768,000	\$1,678,000	-5.1%
7/1/18-19	\$1,623,731	\$1,740,721	\$1,916,027	10.1%	\$333,296	\$710,724	\$561,758	-21.0%	\$1,994,000	\$2,157,000	8.2%
7/1/19-20	\$1,084,651	\$1,260,483	\$1,472,605	16.8%	\$60,174	\$214,201	\$131,065	-38.8%	\$1,733,000	\$1,936,000	11.7%
7/1/20-21		\$729,879	\$789,033	8.1%		\$67,786	\$57,898	-14.6%	\$2,434,000	\$2,536,000	4.2%
Total	\$22,622,036	\$23,768,082	\$23,970,256	0.9%	\$18,215,803	\$19,682,167	\$18,874,869	-4.1%	\$26,435,844	\$26,682,844	0.9%

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 6/30/2020

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 6/30/202 (C) and (G) - Based on information available as of 6/30/2020 (D) and (H) - Exhibit 1-C (E) = [(D) / (C)] - 1 (I) = [(H) / (G)] - 1 (K) - Exhibit 3

<sup>(</sup>L) = [(K)/(J)] - 1

#### Comparison of Results with Previous Estimates as of 1/31/20

(A)	(B) Actual Reported	(C) Expected Reported	(D) Actual Reported	(E)	(F) Actual Paid	(G) Expected Paid	(H) Actual Paid	(1)	(J) Expected Ultimate	(K) Actual Ultimate	(L)
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Periad	1/31/2020	12/31/2020	12/31/2020	Difference	1/31/2020	12/31/2020	12/31/2020	Difference	1/31/2020	12/31/2020	Difference
7/1/02-03	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	0.0%
7/1/03-04	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	0.0%
7/1/04-05	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	0.0%
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	0.0%
7/1/06-07	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	0.0%
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	0.0%
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	0.0%
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	0.0%
7/1/10-11	\$1,838,086	\$1,838,568	\$1,838,086	0.0%	\$1,818,575	\$1,827,885	\$1,821,235	-0.4%	\$1,839,000	\$1,848,000	0.5%
7/1/11-12	\$1,459,814	\$1,460,444	\$1,459,814	0.0%	\$1,459,814	\$1,460,381	\$1,459,814	0.0%	\$1,461,000	\$1,460,000	-0.1%
7/1/12-13	\$805,866	\$806,472	\$778,348	-3.5%	\$745,498	\$776,436	\$742,998	-4.3%	\$807,000	\$779,000	-3.5%
7/1/13-14	\$806,844	\$808,542	\$806,844	-0.2%	\$761,998	\$787,390	\$773,808	-1.7%	\$810,000	\$807,000	-0.4%
7/1/14-15	\$1,633,386	\$1,641,826	\$1,643,386	0.1%	\$1,562,027	\$1,610,274	\$1,574,030	-2.3%	\$1,649,000	\$1,649,000	0.0%
7/1/15-16	\$1,847,403	\$1,871,008	\$1,686,295	-9.9%	\$1,532,168	\$1,738,446	\$1,636,015	-5.9%	\$1,891,000	\$1,701,000	-10.0%
7/1/16-17	\$2,434,276	\$2,499,779	\$2,511,382	0.5%	\$1,637,179	\$2,163,553	\$1,748,276	-19.2%	\$2,556,000	\$2,563,000	0.3%
7/1/17-18	\$1,539,250	\$1,633,106	\$1,499,593	-8.2%	\$393,774	\$1,065,424	\$799,130	-25.0%	\$1,718,000	\$1,678,000	-2.3%
7/1/18-19	\$1,433,818	\$1,684,449	\$1,916,027	13.7%	\$250,780	\$813,325	\$561,758	-30.9%	\$1,944,000	\$2,157,000	11.0%
7/1/19-20	\$693,194	\$1,659,016	\$1,472,605	-11.2%	\$24,226	\$334,188	\$131,065	-60.8%	\$2,283,000	\$1,936,000	-15.2%
Total	\$22,060,781	\$23,472,053	\$23,181,223	-1.2%	\$17,754,883	\$20,146,148	\$18,816,971	-6.6%	\$24,526,844	\$24,146,844	-1.5%

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 1/31/2020 (C) and (G) - Based on information available as of 1/31/2020

<sup>(</sup>D) and (H) - Exhibit 1-C

<sup>(</sup>E) = [(D) / (C)] - 1 (I) = [(H) / (G)] - 1 (K) - Exhibit 3

<sup>(</sup>L) = [(K)/(J)] - 1

## Oklahoma Schools Insurance Group

General Liability including E&O

## Estimated Outstanding Losses As of December 31, 2020

(A)	(B) Estimated	(C) Limited	(D) Limited	(E) Limited	(F)	(G)
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
			7.10			
7/1/02-03	\$168,909	\$168,909	\$168,909	\$0	\$0	\$0
7/1/03-04	\$840,274	\$840,274	\$840,274	\$0	\$0	\$0
7/1/04-05	\$488,972	\$488,972	\$488,972	\$0	\$0	\$0
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	\$0	\$0	\$0
7/1/06-07	\$953,237	\$953,237	\$953,237	\$0	\$0	\$0
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	\$0	\$0	\$0
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	\$0	\$0	\$0
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	\$0	\$0	\$0
7/1/10-11	\$1,848,000	\$1,821,235	\$1,838,086	\$16,851	\$10,000	\$27,000
7/1/11-12	\$1,460,000	\$1,459,814	\$1,459,814	\$0	\$0	\$0
7/1/12-13	\$779,000	\$742,998	\$778,348	\$35,349	\$1,000	\$36,000
7/1/13-14	\$807,000	\$773,808	\$806,844	\$33,036	\$0	\$33,000
7/1/14-15	\$1,649,000	\$1,574,030	\$1,643,386	\$69,356	\$6,000	\$75,000
7/1/15-16	\$1,701,000	\$1,636,015	\$1,686,295	\$50,280	\$15,000	\$65,000
7/1/16-17	\$2,563,000	\$1,748,276	\$2,511,382	\$763,107	\$52,000	\$815,000
7/1/17-18	\$1,678,000	\$799,130	\$1,499,593	\$700,463	\$178,000	\$879,000
7/1/18-19	\$2,157,000	\$561,758	\$1,916,027	\$1,354,269	\$241,000	\$1,595,000
7/1/19-20	\$1,936,000	\$131,065	\$1,472,605	\$1,341,541	\$463,000	\$1,805,000
7/1-12/31/20	\$1,268,000	\$57,898	\$789,033	\$731,135	\$479,000	\$1,210,000
Total	\$25,414,844	\$18,874,869	\$23,970,256	\$5,095,387	\$1,445,000	\$6,540,000

1/1-6/30/21 \$1,268,000

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Exhibit 1-C

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G)=(B)-(C)

General Liability including E&O

# Projected Outstanding Losses As of June 30, 2021

(A)	(B) Estimated	(C) Projected	(D) Projected	(E) Limited	(F)	(G)
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$168,909	\$168,909	\$168,909	\$0	\$0	\$0
7/1/03-04	\$840,274	\$840,274	\$840,274	\$0	\$0	\$0
7/1/04-05	\$488,972	\$488,972	\$488,972	\$0	\$0	\$0
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	\$0	\$0	\$0
7/1/06-07	\$953,237	\$953,237	\$953,237	\$0	\$0	\$0
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	\$0	\$0	\$0
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	\$0	\$0	\$0
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	\$0	\$0	\$0
7/1/10-11	\$1,848,000	\$1,829,000	\$1,841,000	\$12,000	\$7,000	\$19,000
7/1/11-12	\$1,460,000	\$1,460,000	\$1,460,000	\$0	\$0	\$0
7/1/12-13	\$779,000	\$755,000	\$779,000	\$24,000	\$0	\$24,000
7/1/13-14	\$807,000	\$785,000	\$807,000	\$22,000	\$0	\$22,000
7/1/14-15	\$1,649,000	\$1,601,000	\$1,645,000	\$44,000	\$4,000	\$48,000
7/1/15-16	\$1,701,000	\$1,660,000	\$1,692,000	\$32,000	\$9,000	\$41,000
7/1/16-17	\$2,563,000	\$2,062,000	\$2,530,000	\$468,000	\$33,000	\$501,000
7/1/17-18	\$1,678,000	\$1,122,000	\$1,564,000	\$442,000	\$114,000	\$556,000
7/1/18-19	\$2,157,000	\$1,014,000	\$2,001,000	\$987,000	\$156,000	\$1,143,000
7/1/19-20	\$1,936,000	\$391,000	\$1,620,000	\$1,229,000	\$316,000	\$1,545,000
7/1/20-21	\$2,536,000	\$190,000	\$1,623,000	\$1,433,000	\$913,000	\$2,346,000
Total	\$26,682,844	\$20,437,844	\$25,130,844	\$4,693,000	\$1,552,000	\$6,245,000

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Projected using loss deveopment factors

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)

### Oklahoma Schools Insurance Group

General Liability including E&O

### Average Ultimate Claim Sizes

(A)	(B)	(C)	(D)	(E)	(F) Estimated	(F)	(H)
		Reported	Estimated	Estimated	Average		
Accident	Reported	Claim	Ultimate	Ultimate	Ultimate	Exposure	Loss
Period	Claims	Development	Claims	Losses	Claim	(Students)	Rate
7/1/02-03	28	1.000	28.0	\$168,909	\$6,000		
7/1/03-04	88	1.000	88.0	\$840,274	\$9,500		
7/1/04-05	115	1.000	115.0	\$488,972	\$4,300	198,498	\$2,46
7/1/05-06	136	1.000	136.0	\$1,253,449	\$9,200	249,419	\$5.03
7/1/06-07	132	1.000	132.0	\$953,237	\$7,200	267,684	\$3.56
7/1/07-08	163	1.000	163.0	\$1,432,614	\$8,800	308,999	\$4.64
7/1/08-09	155	1.000	155.0	\$1,159,541	\$7,500	313,473	\$3.70
7/1/09-10	144	1.000	144.0	\$1,271,848	\$8,800	314,947	\$4.04
7/1/10-11	110	1.000	110.0	\$1,848,000	\$16,800	356,970	\$5.18
7/1/11-12	87	1.000	87.0	\$1,460,000	\$16,800	309,147	\$4.72
7/1/12-13	109	1.000	109.0	\$779,000	\$7,100	282,168	\$2.76
7/1/13-14	86	1.000	86.0	\$807,000	\$9,400	325,035	\$2.48
7/1/14-15	117	1.000	117.0	\$1,649,000	\$14,100	381,156	\$4.33
7/1/15-16	120	1.000	120.0	\$1,701,000	\$14,200	381,204	\$4.46
7/1/16-17	136	1.000	136.0	\$2,563,000	\$18,800	393,462	\$6.51
7/1/17-18	77	1.000	77.0	\$1,678,000	\$21,800	393,700	\$4.26
7/1/18-19	112	1.002	112.2	\$2,157,000	\$19,200	448,676	\$4.81
7/1/19-20	95	1.011	96.1	\$1,936,000	\$20,100	482,173	\$4.02
7/1/20-21	48	2.150	110.3	\$2,536,000	\$23,000	485,913	\$5.22
7/1/21-22			116.5	\$2,425,000	\$20,800	485,913	\$4.99
Total	2,058		2,238.1	\$29,107,844	\$13,000	6,378,537	\$4.56

<sup>-</sup> Results for 7/1/21-22 are from Forecast Report

<sup>(</sup>B) - Exhibit 1-A

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) = (B)  $\times$  (C), BF estimate for 20-21, forecast for 21-22

<sup>(</sup>E) = Exhibit 3, Forecast for 21-22

<sup>(</sup>F) = (E) / (D)

<sup>(</sup>G) - Exhibit 1-A, provided by OSIG

<sup>(</sup>H) = (E) / (G)

## Estimation of Cumulative Reported Loss Development Factors Using "The Method of Least Squares"

Curve:  $Y = A(1/(X+C))^B + 1$  (Modified Inverse Power Curve)

			Transform	ed Values for	Regression			Fitte	d Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Accident Year	х	Cumulative Factor Y
12	1.618	-6.2383	-0.4805	38.917	0.2309	2.9973	7/1/02-03	222.0	1.000
24	1.211	-6.2615	-1.5548	39.206	2.4173	9.7352	7/1/03-04	210	1.000
36	1.089	-6.2841	-2.4233	39.490	5.8725	15.2286	7/1/04-05	198	1.000
48	1.030	-6,3063	-3.4974	39.769	12.2319	22.0556	7/1/05-06	186	1.000
60	1.015	-6.3279	-4.1964	40.043	17.6096	26.5544	7/1/06-07	174	1.000
72	1.005	-6.3491	-5.2983	40.312	28.0722	33.6398	7/1/07-08	162	1.000
							7/1/08-09	150	1.000
							7/1/09-10	138	1.000
							7/1/10-11	126	1.000
							7/1/11-12	114	1.000
							7/1/12-13	102	1.001
							7/1/13-14	90	1.001
S	ium	-37.7673	-17.4507	237.7368	66.4343	110.2108	7/1/14-15	78	1.003
Av	erage	-6.2946	-2.9084	39.6228	11.0724	18.3685	7/1/15-16	66	1.008
							7/1/16-17	54	1.021
							7/1/17-18	42	1.053
						9.1	7/1/18-19	30	1.138
							7/1/19-20	18	1.365
N :	- 6	9	_	1			7/1/20-21	6	3.544

N =	6		
A = 2	322E+115		
B =	42.664	R^2 =	0.997708
C =	500		

<sup>\* -</sup> Appendix A4

## Estimation of Cumulative Paid Loss Development Factors Using "The Method of Least Squares"

Curve:  $Y = A(1/(X+C))^B + 1$  (Modified Inverse Power Curve)

reaction .			Transform	ed Values for	Regression			Fitte	d Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Accident Year	х	Cumulative Factor Y
12	13.257	-4.4773	2.5061	20.047	6.2805	-11.2206	7/1/02-03	222.0	1.000
24	3.417	-4.6052	0.8826	21.208	0.7789	-4.0644	7/1/03-04	210	1.000
36	1.632	-4.7185	-0.4584	22.264	0.2101	2.1629	7/1/04-05	198	1.000
48	1.249	-4.8203	-1.3886	23.235	1.9281	6.6933	7/1/05-06	186	1.000
60	1.056	-4.9127	-2.8788	24.134	8.2872	14.1423	7/1/06-07	174	1.000
72	1.028	-4.9972	-3.5752	24.972	12.7821	17.8661	7/1/07-08	162	1.000
84	1.012	-5.0752	-4.4315	25.757	19.6378	22.4904	7/1/08-09	150	1.000
96	1.004	-5.1475	-5.5661	26.497	30.9811	28.6513	7/1/09-10	138	1.000
							7/1/10-11	126	1.001
							7/1/11-12	114	1.001
							7/1/12-13	102	1.003
							7/1/13-14	90	1.007
S	um	-38.7538	-14.9098	188.1139	80.8860	76,7213	7/1/14-15	78	1.016
Ave	erage	-4.8442	-1.8637	23.5142	10.1107	9.5902	7/1/15-16	66	1.042
							7/1/16-17	54	1.118
							7/1/17-18	42	1.369
							7/1/18-19	30	2.305
				211			7/1/19-20	18	6.374
N =	= 8			]			7/1/20-21	6	37.181

N =	8		
A =	9.468E+23		
B =	11.781	R^2 =	0.997321
C =	76		200

<sup>\* -</sup> Appendix A5

### Estimation of Cumulative Reported Claim Development Factors Using "The Method of Least Squares"

Curve:  $Y = A(1/(X+C))^B + 1$  (Modified Inverse Power Curve)

20-00-			Transform	ed Values for	Regression			Fitte	d Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Accident Year	х	Cumulative Factor Y
12	1.038	-3.5553	-3.2715	12.640	10.7025	11.6312	7/1/02-03	222.0	1.000
24	1.004	-3.8501	-5.5052	14.824	30.3070	21.1957	7/1/03-04	210	1.000
36	1.001	-4.0775	-7.2296	16.626	52.2673	29.4790	7/1/04-05	198	1.000
							7/1/05-06	186	1.000
							7/1/06-07	174	1.000
							7/1/07-08	162	1.000
							7/1/08-09	150	1.000
							7/1/09-10	138	1.000
							7/1/10-11	126	1.000
							7/1/11-12	114	1.000
							7/1/12-13	102	1.000
							7/1/13-14	90	1.000
S	um	-11.4830	-16.0063	44.0904	93.2768	62.3060	7/1/14-15	78	1.000
Ave	erage	-3.8277	-5.3354	14.6968	31.0923	20.7687	7/1/15-16	66	1.000
		12,140		4.7			7/1/16-17	54	1.000
							7/1/17-18	42	1.000
							7/1/18-19	30	1.002
						4.1	7/1/19-20	18	1.011
N =	I so W. Valencia						7/1/20-21	6	2.150

N =	3		- (
A =	1.919E+10		
B =	7.580	R^2 =	1.000000
C =	23		

<sup>\* -</sup> Appendix A6

### Analysis of Reported Loss Development Reported Losses and ALAE Net of Member Deductibles

			Repo	rted Losses ar	nd ALAE as of	(months):				
Year	12	24	36	48	60	72	84	96	108	120
7/1/05-06	\$816,923	\$1,112,049	\$1,229,274	\$1,405,786	\$1 398 668	\$1 318 468	\$1,335,203	\$1,330,178	\$1,330,178	\$1,330,178
7/1/06-07	\$980,380	\$1,099,400	\$1,048,254	\$1,108,562				\$1,411,197		
7/1/07-08	\$1,546,988	\$1,678,303	\$1,820,948			the second secon		\$1,501,995		
7/1/08-09	\$1,818,383	\$1,498,349		\$1,328,980		The second second		\$2,172,804		The state of the s
7/1/09-10	\$1,911,271	\$1,672,753	\$1,443,458	\$1,751,670	7			\$1,524,198		\$1,503,548
7/1/10-11	\$2,532,003	\$2,683,693	\$2,774,100	Salara Salara Salara				\$2,434,762		
7/1/11-12	\$1,927,480	\$2,611,099		\$3,977,466				\$3,688,203		
7/1/12-13	\$1,311,489	\$1,442,277	\$1,150,970	\$1,348,515		\$1,167,520			A-745 - 24-05-05	
7/1/13-14	\$1,136,920	\$1,270,561		\$1,041,935	\$943,543	\$895,683	\$936,683			
7/1/14-15	\$1,195,898	\$1,507,077	\$1,985,502	\$2,246,921		\$2,236,041				
7/1/15-16	\$1,726,427	\$1,880,174		\$2,132,574	\$1,959,646	2000				
7/1/16-17	\$2,362,228	\$3,423,590	\$3,517,430	\$3,675,485	C. Service					
7/1/17-18	\$917,464	\$1,493,734	\$2,052,983	V. 24-124 200						
7/1/18-19	\$1,445,316	\$2,392,822								
7/1/19-20	\$1,084,651	724								
				Age-to-	Age Factors			_		-
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/05-06	1.361	1.105	1.144	0.995	0.943	1.013	0.996	1.000	1.000	
7/1/06-07	1.121	0.953	1.058	1.198	1.017	1.044	1.000	0.958	1.000	
7/1/07-08	1.085	1.085	0.924	0.939	0.968	0.983	1.000	1.000	1.000	
7/1/08-09	0.824	1.128	0.786	0.912	1.076	1.725	0.966	1.000	1.000	
7/1/09-10	0.875	0.863	1.214	0.915	0.976	0.974	1.000	1,000	0.986	
7/1/10-11	1.060	1.034	0.933	0.978	0.962	1.000	1.000	1.000	1.000	
7/1/11-12	1.355	1.437	1.060	0.986	0.956	0.984	1.000	1.000		
7/1/12-13	1.100	0.798	1.172	0.900	0.962	0.965	0.976			
7/1/13-14	1.118	0.790	1.039	0.906	0.949	1.046				
7/1/14-15	1.260	1.317	1.132	0.998	0.997					
7/1/15-16	1.089	1.165	0.973	0.919	paragroy,					
7/1/16-17	1.449	1.027	1.045							
7/1/17-18	1.628	1.374								
7/1/18-19	1.656									
verage	1.213	1.083	1.040	0.968	0.981	1.082	0.992	0.994	0.998	
Vtd. Avg.	1.191	1.098	1.029	0.967	0.976	1.058	0.993	0.996	0.998	
year average	1.416	1.135	1.072	0.942	0.965	0.994	0.988	1.000	0.997	
K Benchmark	2,018	1.232	0.958	0.954	0.956	1.000	1.000	1.000	1.000	1.000
rior	1.256	1.090	1.057	1.025	1.010	1.006	1.000	1.000	1,000	1.000
	12	24	36	48	60	72	84	96	108	120
elected	1.336	1.113	1.057	1.015	1.010	1.005	1.000	1.000	1.000	1,000
Cumulative	1.618	1.211	1.089	1.030	1.015	1.005	1.000	1.000	1.000	1.000

## Analysis of Paid Loss Development Paid Losses and ALAE Net of Member Deductibles

			Pai	d Losses and	ALAE as of (m	onths):				
Year	12	24	36	48	60	72	84	96	108	120
7/1/05-06	\$231,455	\$584,973	\$771,010	\$1,092,719	\$1,312,650	\$1,313,442	\$1,330,178	\$1,330,178	\$1,330,178	\$1,330,178
7/1/06-07	\$322,617	\$678,216	\$787,689	\$943,320	\$1,208,914	\$1,271,236	\$1,344,837	\$1,351,835	\$1,351,835	\$1,351,835
7/1/07-08	\$170,163	\$665,391	\$1,286,746	\$1,455,173	\$1,501,494	\$1,501,995	\$1,501,995	\$1,501,995	\$1,501,995	\$1,501,995
7/1/08-09	\$158,208	\$609,160	\$939,799	\$984,969	\$1,127,969	\$1,163,044	\$2,170,476	\$2,172,804	\$2,172,804	\$2,172,804
7/1/09-10	\$297,737	\$767,474	\$1,041,914	\$1,347,942	\$1,505,891	\$1,496,609	\$1,503,479	\$1,502,945	\$1,503,515	\$1,503,548
7/1/10-11	\$201,545	\$1,303,203	\$2,109,602	\$2,299,143	\$2,347,892	\$2,385,861	\$2,395,912	\$2,400,815	\$2,407,808	\$2,416,933
7/1/11-12	\$128,159	\$704,902	\$1,700,471	\$2,356,202	\$3,580,758	\$3,685,134	\$3,688,203	\$3,688,203	\$3,688,203	
7/1/12-13	\$148,090	\$496,864	\$655,081	\$980,783	\$1,004,467	\$1,058,497	\$1,065,869	\$1,063,466		
7/1/13-14	\$70,272	\$359,375	\$563,792	\$811,678	\$838,630	\$847,442	\$894,885			
7/1/14-15	\$131,121	\$604,571	\$1,391,247	\$1,592,115	\$2,092,796	\$2,128,703				
7/1/15-16	\$275,027	\$824,838	\$1,304,248	\$1,605,611	\$1,804,373					
7/1/16-17	\$236,290	\$740,126	\$2,540,308	\$2,857,089						
7/1/17-18	\$56,435	\$250,424	\$590,742							
7/1/18-19	\$86,271	\$333,296								
7/1/19-20	\$60,174									
		0.00			Age Factors			W 201 - 2	1200.00	
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/05-06	2.527	1.318	1.417	1.201	1.001	1.013	1.000	1.000	1.000	
7/1/06-07	2.102	1.161	1.198	1.282	1.052	1.058	1.005	1.000	1.000	
7/1/07-08	3.910	1.934	1.131	1.032	1.000	1.000	1.000	1.000	1.000	
7/1/08-09	3.850	1.543	1.048	1.145	1.031	1.866	1.001	1.000	1.000	
7/1/09-10	2.578	1.358	1.294	1.117	0.994	1.005	1.000	1.000	1.000	
7/1/10-11	6.466	1.619	1.090	1.021	1.016	1.004	1.002	1.003	1.004	
7/1/11-12	5.500	2.412	1.386	1.520	1.029	1.001	1.000	1.000		
7/1/12-13	3.355	1.318	1.497	1.024	1.054	1.007	0.998			
7/1/13-14	5.114	1.569	1.440	1.033	1.011	1.056				
7/1/14-15	4.611	2.301	1.144	1.314	1.017					
7/1/15-16	2.999	1.581	1.231	1.124						
7/1/16-17	3.132	3.432	1.125							
7/1/17-18	4.437	2,359								
7/1/18-19	3,863									
verage	3.889	1.839	1.250	1.165	1.020	1.112	1.001	1.000	1.001	
/td. Avg.	3.550	1.826	1.214	1.185	1.020	1,080	1.001	1.001	1.001	
year average	3,809	2.248	1.287	1.203	1.025	1.015	1.000	1.001	1.001	
K benchmark	2.552	1.975	1.312	1.082	1.038	1.016	1.008	1.003	1.000	1.000
rior	3,951	1.938	1.325	1.163	1.029	1.016	1.008	1.003	1.001	1.000
	12	24	36	48	60	72	84	96	108	120
elected	3.880	2.093	1.306	1.183	1.027	1.016	1.008	1.003	1.001	1.000
umulative	13.257	3.417	1.632	1.249	1.056	1.028	1.012	1.004	1.001	1.000

### Analysis of Reported Occurrences

			Repo	orted Claims a	s of (months)	:				
Year	12	24	36	48	60	72	84	96	108	120
7/1/05-06	114	136	137	138	136	136	136	136	136	136
7/1/06-07	128	132	133	132	132	132	132	132	132	132
7/1/07-08	148	161	164	164	163	163	163	163	163	163
7/1/08-09	146	155	155	155	155	155	155	155	155	155
7/1/09-10	139	143	144	144	144	144	144	144	144	144
7/1/10-11	108	109	109	110	110	110	110	110	110	110
7/1/11-12	89	87	87	87	87	87	87	87	87	-
7/1/12-13	110	109	109	109	109	109	109	109	1.541	
7/1/13-14	83	85	86	86	86	86	86			
7/1/14-15	103	116	116	116	116	116				
7/1/15-16	120	122	119	119	119	4.20				
7/1/16-17	125	135	133	135	113					
7/1/17-18	80	77	77	133						
7/1/18-19	122	115	",							
7/1/19-20	92	113								
				Age-to-Age	Factors					_
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/05-06	1.193	1.007	1.007	0.986	1.000	1.000	1.000	1.000	1.000	
7/1/06-07	1.031	1.008	0.992	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/07-08	1.088	1.019	1.000	0.994	1.000	1.000	1.000	1.000	1.000	
7/1/08-09	1.062	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/09-10	1.029	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/10-11	1.009	1.000	1.009	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/11-12	0.978	1.000	1.000	1.000	1.000	1.000	1.000	1,000		
7/1/12-13	0.991	1.000	1.000	1.000	1.000	1.000	1.000			
7/1/13-14	1.024	1,012	1.000	1.000	1.000	1.000				
7/1/14-15	1.126	1.000	1.000	1.000	1.000	5:263)				
7/1/15-16	1.017	0.975	1.000	1.000	4.000					
7/1/16-17	1.080	0.985	1.015	514.34						
7/1/17-18	0.963	1.000	2,020							
7/1/18-19	0.943	2.000								
verage	1.038	1.001	1.002	0.998	1.000	1.000	1.000	1.000	1.000	-
/td. Avg.	1.041	1.001	1.002	0.998	1.000	1.000	1.000	1.000	1.000	
year average	1.026	0.994	1.003	1.000	1.000	1.000	1.000	1.000	1.000	
K benchmark	1.268	1.014	1.005	1.002	1.001	1.000	1.000	1,000	1,000	1.000
rior	1.042	1.003	1.001	1.000	1.000	1.000	1.000	1,000	1.000	1.000
	12	24	36	48	60	72	84	96	108	120
elected	1.034	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
umulative	1.038	1.004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000

### Derivation of Lognomoral Parameters Based on Reported Loss Development

	10.00		Natural	Logarithm of	Age to Age F	actors				
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:uli
7/1/05-06	0.308	0.100	0.134	-0.005	-0.059	0.013	-0.004	0.000	0.000	
7/1/06-07	0.115	-0.048	0.056	0.181	0.017	0.043	0.000	-0.043	0.000	
7/1/07-08	0.081	0.082	-0.079	-0.063	-0.032	-0.017	0.000	0.000	0.000	
7/1/08-09	-0.194	0.121	-0.240	-0.092	0.073	0.545	-0.034	0.000	0.000	
7/1/09-10	-0.133	-0.147	0.194	-0.089	-0.025	-0.026	0.000	0.000	-0.014	
7/1/10-11	0.058	0.033	-0.069	-0.022	-0.039	0.000	0.000	0,000	0.000	
7/1/11-12	0.304	0.362	0.058	-0.015	-0.045	-0.016	0.000	0.000		
7/1/12-13	0.095	-0.226	0.158	-0.105	-0.039	-0.036	-0.025			
7/1/13-14	0.111	-0,236	0.038	-0.099	-0.052	0.045				
7/1/14-15	0.231	0.276	0.124	-0.002	-0.003					
7/1/15-16	0.085	0.153	-0.027	-0.085						
7/1/16-17	0.371	0.027	0.044							
7/1/17-18	0.487	0.318								
7/1/18-19	0.504									
	<u>12</u>	24	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	84	<u>96</u>	108	
ariance	0.043	0.037	0.015	0.007	0.002	0.034	0.000	0.000	0.000	
um, Variance	0.137	0.094	0.057	0.043	0.036	0.034	0.000	0.000	0.000	
D	0.371	0.307	0.240	0.206	0.189	0.185	0.022	0.017	0.006	



# Section 5

## Exhibits – Automobile Liability

Exhibit 1	Summary of Data Large Loss Listing Calculation of Limited Losses
Exhibit 2	Loss Development Methods Bornhuetter-Ferguson Methods
Exhibit 3	Summary and Selection of Ultimate Losses
Exhibit 4	Comparison to Previous Actuarial Report
Exhibit 5	Outstanding Losses as of 12/31/2020 Projected Outstanding Losses and IBNR as of 6/30/2021
Exhibit 6	Historical Claim Frequency, Severity and Loss Rates
Appendix A	Loss Development Factors

**Automobile Liability** 

### Summary of Loss Data as of December 31, 2020 **Total Experience Net of Member Deductibles**

(A)	(B)	(C)	(L	0)	(E) Net Loss	(F) Net Loss	(G) Net Loss	(H)
Accident Period	Evaluation Date	Maturity (months)	Total Claims	Open Claims	and Expense Payments	and Expense Reserves	and Expense Incurred	Vehicle:
7/1/02-03	12/31/2020	222	24	0	\$65,087	\$0	\$65,087	
7/1/03-04	12/31/2020	210	81	0	\$433,514	\$0	\$433,514	
7/1/04-05	12/31/2020	198	109	0	\$1,097,512	\$0	\$1,097,512	5,046
7/1/05-06	12/31/2020	186	134	0	\$450,928	\$0	\$450,928	6,391
7/1/06-07	12/31/2020	174	145	0	\$549,344	\$0	\$549,344	7,050
7/1/07-08	12/31/2020	162	178	0	\$759,907	\$0	\$759,907	7,782
7/1/08-09	12/31/2020	150	207	0	\$1,465,586	\$0	\$1,465,586	7,675
7/1/09-10	12/31/2020	138	182	0	\$703,413	\$0	\$703,413	8,346
7/1/10-11	12/31/2020	126	187	0	\$882,016	\$0	\$882,016	9,059
7/1/11-12	12/31/2020	114	177	0	\$948,511	\$0	\$948,511	6,650
7/1/12-13	12/31/2020	102	162	0	\$661,103	\$0	\$661,103	6,979
7/1/13-14	12/31/2020	90	186	0	\$730,549	\$0	\$730,549	7,460
7/1/14-15	12/31/2020	78	226	2	\$1,237,198	\$95,768	\$1,332,966	9,047
7/1/15-16	12/31/2020	66	227	1	\$1,101,405	\$92,596	\$1,194,001	9,517
7/1/16-17	12/31/2020	54	207	5	\$1,026,421	\$233,181	\$1,259,602	10,334
7/1/17-18	12/31/2020	42	166	5	\$621,489	\$372,673	\$994,162	10,113
7/1/18-19	12/31/2020	30	195	6	\$783,981	\$280,563	\$1,064,544	11,525
7/1/19-20	12/31/2020	18	195	15	\$919,596	\$613,875	\$1,533,471	12,963
7/1/20-21	12/31/2020	6	65	50	\$149,126	\$361,620	\$510,746	13,059
7/1/21-22								13,074
			3053	84	\$14,586,687	\$2,050,277	\$16,636,964	162,06

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

<sup>-</sup> Claims are grouped by occurrence, claims with \$0 incurred are excluded

<sup>-</sup> Losses are net of member deductibles

#### Large Claim Listing

Occurrence #	School	Loss Date	Net Paid	Net Incurred	Policy Year	SIR	Excess Paid	Excess Incurred	Severity Factor	Ultimate Net
00203	NEWKIRK PUBLIC SCHOOLS	1/30/2004	\$176,217	\$176,217	7/1/03-04	\$100,000	\$76,217	\$76,217	1.000	\$176,22
00513	CHICKASHA PUBLIC SCHOOLS	12/20/2004	\$129,748	\$129,748	7/1/04-05	\$100,000	\$29,748	\$29,748	1.000	\$129,75
00596	RIPLEY ISD	3/29/2005	\$549,427	\$549,427	7/1/04-05	\$100,000	\$449,427	\$449,427	1.000	\$549,46
01433	VELMA-ALMA ISD #5	12/20/2006	\$114,139	\$114,139	7/1/06-07	\$100,000	\$14,139	\$14,139	1.000	\$114,15
02638	ALTUS PUBLIC SCHOOL	11/14/2008	\$104,466	\$104,466	7/1/08-09	\$100,000	\$4,466	\$4,466	1.000	\$104,48
02678	CHICKASHA PUBLIC SCHOOLS	12/15/2008	\$131,271	\$131,271	7/1/08-09	\$100,000	\$31,271	\$31,271	1.000	\$131,29
02940	CANEY VALLEY PUBLIC SCHOOL	5/7/2009	\$106,504	\$106,504	7/1/08-09	\$100,000	\$6,504	\$6,504	1,000	\$106,52
90075	PAOLI ISD	8/18/2010	\$134,999	\$134,999	7/1/10-11	\$100,000	\$34,999	\$34,999	1.000	\$135,05
90305	GUTHRIE PUBLIC SCHOOLS	12/8/2010	\$103,684	\$103,684	7/1/10-11	\$100,000	\$3,684	\$3,684	1.000	\$103,73
91477	LAWTON BOARD OF EDUCATION ISD#8	9/19/2012	\$135,786	\$135,786	7/1/12-13	\$100,000	\$35,786	\$35,786	1.001	\$135,8
92239	PUTNAM CITY ISD	1/7/2014	\$130,707	\$130,707	7/1/13-14	\$100,000	\$30,707	\$30,707	1.001	\$130,8
93008	WESTERN HEIGHTS ISD	3/23/2015	\$206,102	\$206,102	7/1/14-15	\$100,000	\$106,102	\$106,102	1.002	\$206,5
93063	MIDWEST CITY-DEL CITY ISD	4/20/2015	\$219,224	\$219,224	7/1/14-15	\$100,000	\$119,224	\$119,224	1.002	\$219,70
93397	BARTLESVILLE PUBLIC SCHOOL #30	10/10/2015	\$12,808	\$105,404	7/1/15-16	\$100,000	\$0	\$5,404	1.004	\$105,8
93477	HAYWOOD ISD	11/19/2015	\$174,557	\$174,557	7/1/15-16	\$100,000	\$74,557	\$74,557	1.004	\$175,2
94052	PUTNAM CITY ISD	9/29/2016	\$126,307	\$126,307	7/1/16-17	\$100,000	\$26,307	\$26,307	1.008	\$127,3
94363	ADAIR ISD	3/23/2017	\$37,521	\$128,040	7/1/16-17	\$100,000	\$0	\$28,040	1.008	\$129,0
94907	NORTH ROCK CREEK ISD	1/30/2018	\$9,947	\$178,250	7/1/17-18	\$100,000	\$0	\$78,250	1.020	\$181,8
95622	KONAWA ISD #4	3/8/2019	\$24,657	\$131,100	7/1/18-19	\$100,000	\$0	\$31,100	1.062	\$139,2
625-19-96065	CLEVELAND PUBLIC SCHOOLS	10/2/2019	\$90,750	\$90,750	7/1/19-20	\$100,000	\$0	\$0	1.127	\$102,25
96137	CLEVELAND PUBLIC SCHOOLS	10/29/2019	\$2,905	\$293,000	7/1/19-20	\$100,000	\$0	\$193,000	1.127	\$330,2
96204	ARDMORE ISD #19	11/15/2019	\$120,601	\$120,601	7/1/19-20	\$100,000	\$20,601	\$20,601	1.127	\$135,9
625-19-96206	MUSTANG PUBLIC SCHOOL	11/15/2019	\$30,379	\$110,379	7/1/19-20	\$100,000	\$0	\$10,379	1.127	\$124,4
96766	JENKS ISD	10/29/2020	\$0	\$128,000	7/1/20-21	\$100,000	\$0	\$28,000	1.127	\$144,2

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services.

Excess paid and incurred losses for closed claims are equal to the excess recoveries, or amounts over SIR if no recovery yet Excess paid and incurred losses for open claims are amounts in excess of SIR regardless of recoveries.

Automobile Liability

## **Calculation of Limited Losses**

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
		Unlimited	Unlimited	Paid	Reported	Paid	Reported
Policy		Paid	Reported	Excess of	Excess of	Limited to	Limited to
Period	Retention	Losses	Losses	Primary	Primary	Primary	Primary
7/1/02-03	\$100,000	\$65,087	\$65,087	\$0	\$0	\$65,087	\$65,087
7/1/03-04	\$100,000	\$433,514	\$433,514	\$76,217	\$76,217	\$357,297	\$357,297
7/1/04-05	\$100,000	\$1,097,512	\$1,097,512	\$479,175	\$479,175	\$618,336	\$618,336
7/1/05-06	\$100,000	\$450,928	\$450,928	\$0	\$0	\$450,928	\$450,928
7/1/06-07	\$100,000	\$549,344	\$549,344	\$14,139	\$14,139	\$535,205	\$535,205
7/1/07-08	\$100,000	\$759,907	\$759,907	\$0	\$0	\$759,907	\$759,907
7/1/08-09	\$100,000	\$1,465,586	\$1,465,586	\$42,241	\$42,241	\$1,423,346	\$1,423,346
7/1/09-10	\$100,000	\$703,413	\$703,413	\$0	\$0	\$703,413	\$703,413
7/1/10-11	\$100,000	\$882,016	\$882,016	\$38,683	\$38,683	\$843,333	\$843,333
7/1/11-12	\$100,000	\$948,511	\$948,511	\$0	\$0	\$948,511	\$948,511
7/1/12-13	\$100,000	\$661,103	\$661,103	\$35,786	\$35,786	\$625,317	\$625,317
7/1/13-14	\$100,000	\$730,549	\$730,549	\$30,707	\$30,707	\$699,842	\$699,842
7/1/14-15	\$100,000	\$1,237,198	\$1,332,966	\$225,326	\$225,326	\$1,011,872	\$1,107,640
7/1/15-16	\$100,000	\$1,101,405	\$1,194,001	\$74,557	\$79,961	\$1,026,848	\$1,114,040
7/1/16-17	\$100,000	\$1,026,421	\$1,259,602	\$26,307	\$54,347	\$1,000,113	\$1,205,255
7/1/17-18	\$100,000	\$621,489	\$994,162	\$0	\$78,250	\$621,489	\$915,912
7/1/18-19	\$100,000	\$783,981	\$1,064,544	\$0	\$31,100	\$783,981	\$1,033,444
7/1/19-20	\$100,000	\$919,596	\$1,533,471	\$20,601	\$223,979	\$898,995	\$1,309,491
7/1/20-21	\$100,000	\$149,126	\$510,746	\$0	\$28,000	\$149,126	\$482,746
Total		\$14,586,687	\$16,636,964	\$1,063,741	\$1,437,913	\$13,522,946	\$15,199,051

<sup>(</sup>C) and (D) - Exhibit 1-A

<sup>(</sup>E) and (F) - Excess amounts from claims in Exhibit 1-B

<sup>(</sup>G) = (C) - (E)

<sup>(</sup>H) = (D) - (F)

## Oklahoma Schools Insurance Group

Automobile Liability

## Estimated Ultimate Losses Limited to OSIG Retentions Using Loss Development Methods

(A)	(B)	(C) Reported	(D) Reported	(E) Ultimate	(F) Provision	(G) Estimated	
Accident	Reported	on Large	Develop.	on Small	for Large	Ultimate	
Period	Losses	Losses	Factor	Claims	Claims	Losses	
7/1/02-03	\$65,087	\$0	1.000	\$65,090	\$0	\$65,000	
7/1/03-04	\$433,514	\$176,217	1.000	\$257,311	\$100,000	\$357,000	
7/1/04-05	\$1,097,512	\$679,175	1.000	\$418,365	\$200,000	\$618,000	
7/1/05-06	\$450,928	\$0	1.000	\$450,967	\$0	\$451,000	
7/1/06-07	\$549,344	\$114,139	1,000	\$435,254	\$100,000	\$535,000	
7/1/07-08	\$759,907	\$0	1.000	\$760,019	\$0	\$760,000	
7/1/08-09	\$1,465,586	\$342,241	1.000	\$1,123,566	\$300,000	\$1,424,000	
7/1/09-10	\$703,413	\$0	1.000	\$703,602	\$0	\$704,000	
7/1/10-11	\$882,016	\$238,683	1.000	\$643,575	\$200,000	\$844,000	
7/1/11-12	\$948,511	\$0	1.001	\$949,030	\$0	\$949,000	
7/1/12-13	\$661,103	\$135,786	1.001	\$525,750	\$100,000	\$626,000	
7/1/13-14	\$730,549	\$130,707	1.001	\$600,626	\$100,000	\$701,000	
7/1/14-15	\$1,332,966	\$425,326	1.002	\$909,641	\$200,000	\$1,110,000	
7/1/15-16	\$1,194,001	\$279,961	1.004	\$917,727	\$200,000	\$1,118,000	
7/1/16-17	\$1,259,602	\$254,347	1.008	\$1,013,558	\$200,000	\$1,214,000	
7/1/17-18	\$994,162	\$178,250	1.020	\$832,161	\$100,000	\$932,000	
7/1/18-19	\$1,064,544	\$131,100	1.062	\$991,626	\$100,000	\$1,092,000	
7/1/19-20	\$1,533,471	\$614,729	1.129	\$1,037,315	\$400,642	\$1,438,000	
Total	\$16,126,217	\$3,700,663		\$12,635,184	\$2,300,642	\$14,938,00	
	(H)	(1)	(J)	(K)	(L)	(M)	
		Paid	Paid	Ultimate	Provision	Estimated	
Accident	Paid	on Large	Develop.	on Small	for Large	Ultimate	
Period	Losses	Losses	Factor	Claims	Claims	Losses	
7/1/02-03	\$65,087	\$0	1.000	\$65,088	\$0	\$65,000	
7/1/03-04	\$433,514	\$176,217	1.000	\$257,302	\$100,000	\$357,000	
7/1/04-05	\$1,097,512	\$679,175	1.000	\$418,348	\$200,000	\$618,000	
7/1/05-06	\$450,928	\$0	1.000	\$450,949	\$0	\$451,000	
7/1/06-07	\$549,344	\$114,139	1.000	\$435,238	\$100,000	\$535,000	

Accident Period	(H) Paid Losses	(I) (J) Paid Paid on Large Develop. Losses Factor		(K) Ultimate on Small Claims	(L) Provision for Large Claims	Estimated Ultimate Losses
7/1/02-03	\$65,087	\$0	1.000	\$65,088	\$0	\$65,000
7/1/03-04	\$433,514	\$176,217	1.000	\$257,302	\$100,000	\$357,000
7/1/04-05	\$1,097,512	\$679,175	1.000	\$418,348	\$200,000	\$618,000
7/1/05-06	\$450,928	\$0	1.000	\$450,949	\$0	\$451,000
7/1/06-07	\$549,344	\$114,139	1.000	\$435,238	\$100,000	\$535,000
7/1/07-08	\$759,907	\$0	1.000	\$760,006	\$0	\$760,000
7/1/08-09	\$1,465,586	\$342,241	1.000	\$1,123,598	\$300,000	\$1,424,000
7/1/09-10	\$703,413	\$0	1.000	\$703,692	\$0	\$704,000
7/1/10-11	\$882,016	\$238,683	1.001	\$643,793	\$200,000	\$844,000
7/1/11-12	\$948,511	\$0	1.001	\$949,767	\$0	\$950,000
7/1/12-13	\$661,103	\$135,786	1.003	\$526,638	\$100,000	\$627,000
7/1/13-14	\$730,549	\$130,707	1.005	\$602,797	\$100,000	\$703,000
7/1/14-15	\$1,237,198	\$425,326	1.010	\$819,964	\$200,000	\$1,020,000
7/1/15-16	\$1,101,405	\$187,366	1.021	\$933,138	\$200,000	\$1,133,000
7/1/16-17	\$1,026,421	\$163,828	1.046	\$901,896	\$200,000	\$1,102,000
7/1/17-18	\$621,489	\$9,947	1.104	\$675,037	\$100,000	\$775,000
7/1/18-19	\$783,981	\$24,657	1.249	\$948,035	\$100,000	\$1,048,000
7/1/19-20	\$919,596	\$244,634	1.629	\$1,099,373	\$400,642	\$1,500,000
Total	\$14,437,561	\$2,872,708		\$12,314,658	\$2,300,642	\$14,616,000

(B) and (H)- Exhibit 1-A

(C) and (I) - Exhibit 1-B

(D) - Appendix A1

 $(E) = [(B) - (C)] \times (D)$ 

(F) and (L) = # large x SIR x ccdf

(G) = (E) + (F)

(J) - Appendix A2

 $(K) = [(H)-(I)]\times(J)$ 

## Oklahoma Schools Insurance Group

Automobile Liability

#### Estimated Ultimate Losses Limited to OSIG Retention Using Bornhuetter-Ferguson Method

(A)	(B) Prior	(C) Reported	(D)	(E) Expected	(F) Limited	(G) Estimated
Accident	Ultimate or	Develop.	Expected %	Unreported	Reported	Ultimate
Period	Forecast	Factor	Unreported	Losses	Losses	Losses
7/1/02-03	\$65,087	1.000	0%	\$3	\$65,087	\$65,000
7/1/03-04	\$357,297	1.000	0%	\$20	\$357,297	\$357,000
7/1/04-05	\$618,336	1.000	0%	\$43	\$618,336	\$618,000
7/1/05-06	\$450,928	1.000	0%	\$39	\$450,928	\$451,000
7/1/06-07	\$535,205	1.000	0%	\$60	\$535,205	\$535,000
7/1/07-08	\$759,907	1.000	0%	\$112	\$759,907	\$760,000
7/1/08-09	\$1,423,346	1.000	0%	\$280	\$1,423,346	\$1,424,000
7/1/09-10	\$703,413	1.000	0%	\$189	\$703,413	\$704,000
7/1/10-11	\$843,333	1.000	0%	\$318	\$843,333	\$844,000
7/1/11-12	\$948,511	1.001	0%	\$518	\$948,511	\$949,000
7/1/12-13	\$625,317	1.001	0%	\$515	\$625,317	\$626,000
7/1/13-14	\$699,842	1.001	0%	\$914	\$699,842	\$701,000
7/1/14-15	\$1,167,000	1.002	0%	\$2,567	\$1,107,640	\$1,110,00
7/1/15-16	\$1,130,000	1.004	0%	\$4,540	\$1,114,040	\$1,119,00
7/1/16-17	\$1,231,000	1.008	1%	\$10,084	\$1,205,255	\$1,215,00
7/1/17-18	\$987,000	1.020	2%	\$19,272	\$915,912	\$935,000
7/1/18-19	\$1,147,000	1.062	6%	\$67,298	\$1,033,444	\$1,101,00
7/1/19-20	\$1,551,000	1.129	11%	\$177,293	\$1,309,491	\$1,487,00
7/1/20-21	\$1,139,000	2.258	56%	\$634,599	\$482,746	\$1,117,00
Total	\$16,382,522			\$918,663	\$15,199,051	\$16,118,00

	(H) Prior	(I) Paid	(1)	(K) Expected	(L) Limited	(M) Estimated
Accident	Ultimate or	Develop.	Expected %	Unpaid	Paid	Ultimate
Period	Forecast	Factor	Unpaid	Losses	Losses	Losses
7/1/02-03	\$65,087	1.000	0%	\$1	\$65,087	\$65,000
7/1/03-04	\$357,297	1.000	0%	\$6	\$357,297	\$357,000
7/1/04-05	\$618,336	1.000	0%	\$17	\$618,336	\$618,000
7/1/05-06	\$450,928	1.000	0%	\$21	\$450,928	\$451,000
7/1/06-07	\$535,205	1.000	0%	\$41	\$535,205	\$535,000
7/1/07-08	\$759,907	1.000	0%	\$99	\$759,907	\$760,000
7/1/08-09	\$1,423,346	1.000	0%	\$320	\$1,423,346	\$1,424,000
7/1/09-10	\$703,413	1.000	0%	\$279	\$703,413	\$704,000
7/1/10-11	\$843,333	1.001	0%	\$603	\$843,333	\$844,000
7/1/11-12	\$948,511	1.001	0%	\$1,254	\$948,511	\$950,000
7/1/12-13	\$625,317	1.003	0%	\$1,569	\$625,317	\$627,000
7/1/13-14	\$699,842	1.005	0%	\$3,431	\$699,842	\$703,000
7/1/14-15	\$1,167,000	1.010	1%	\$11,517	\$1,011,872	\$1,023,000
7/1/15-16	\$1,130,000	1.021	2%	\$23,127	\$1,026,848	\$1,050,000
7/1/16-17	\$1,231,000	1.046	4%	\$53,645	\$1,000,113	\$1,054,000
7/1/17-18	\$987,000	1.104	9%	\$92,839	\$621,489	\$714,000
7/1/18-19	\$1,147,000	1.249	20%	\$228,316	\$783,981	\$1,012,000
7/1/19-20	\$1,551,000	1.629	39%	\$598,762	\$898,995	\$1,498,000
7/1/20-21	\$1,139,000	4.628	78%	\$892,894	\$149,126	\$1,042,000
Total	\$16,382,522	_		\$1,908,739	\$13,522,946	\$15,431,00

(B) and (H) - Exhibit 3, revised forecast for 20-21

(C) - Appendix A1

(D) = 1 - 1/(C)(E) = (B) \* (D) (F) and (L) - Exhibit I-C

(G) = (E) + (F)

(I) - Appendix A2

(J) = 1 - 1/(I)

(K) = (H) \* (J)

(M) = (K) + (L)

**Automobile Liability** 

## Summary and Selection of Ultimate Limited Loss Estimates

(A)	(B) Prior	(C) Reported	(D) Paid	(E)	(F)	(G) Selected
	Ultimate	Loss	Loss	Expected	Expected	Ultimate
Accident	or	Development	Development	Unreported	Unpaid	Loss
Period	Forecast	Method	Method	Method	Method	Estimate
7/1/02-03	\$65,087	\$65,000	\$65,000	\$65,000	\$65,000	\$65,087
7/1/03-04	\$357,297	\$357,000	\$357,000	\$357,000	\$357,000	\$357,297
7/1/04-05	\$618,336	\$618,000	\$618,000	\$618,000	\$618,000	\$618,336
7/1/05-06	\$450,928	\$451,000	\$451,000	\$451,000	\$451,000	\$450,928
7/1/06-07	\$535,205	\$535,000	\$535,000	\$535,000	\$535,000	\$535,205
7/1/07-08	\$759,907	\$760,000	\$760,000	\$760,000	\$760,000	\$759,907
7/1/08-09	\$1,423,346	\$1,424,000	\$1,424,000	\$1,424,000	\$1,424,000	\$1,423,346
7/1/09-10	\$703,413	\$704,000	\$704,000	\$704,000	\$704,000	\$703,413
7/1/10-11	\$843,333	\$844,000	\$844,000	\$844,000	\$844,000	\$843,333
7/1/11-12	\$948,511	\$949,000	\$950,000	\$949,000	\$950,000	\$948,511
7/1/12-13	\$625,317	\$626,000	\$627,000	\$626,000	\$627,000	\$625,317
7/1/13-14	\$699,842	\$701,000	\$703,000	\$701,000	\$703,000	\$699,842
7/1/14-15	\$1,167,000	\$1,110,000	\$1,020,000	\$1,110,000	\$1,023,000	\$1,110,000
7/1/15-16	\$1,130,000	\$1,118,000	\$1,133,000	\$1,119,000	\$1,050,000	\$1,119,000
7/1/16-17	\$1,231,000	\$1,214,000	\$1,102,000	\$1,215,000	\$1,054,000	\$1,215,000
7/1/17-18	\$987,000	\$932,000	\$775,000	\$935,000	\$714,000	\$961,000
7/1/18-19	\$1,147,000	\$1,092,000	\$1,048,000	\$1,101,000	\$1,012,000	\$1,124,000
7/1/19-20	\$1,551,000	\$1,438,000	\$1,500,000	\$1,487,000	\$1,498,000	\$1,519,000
7/1/20-21	\$1,583,000			\$1,117,000	\$1,042,000	\$1,117,000
Total	\$16,826,522	\$14,938,000	\$14,616,000	\$16,118,000	\$15,431,000	\$16,195,522

<sup>(</sup>B) - From Previous Report as of 6/30/2020

Limited Reported Losses for 02-03 through 13-14

<sup>(</sup>C) and (D) - Exhibit 2-A

<sup>(</sup>E) and (F) - Exhibit 2-B

<sup>(</sup>G) - Selected as Noted:

<sup>(</sup>E) for 14-15 through 16-17 and 20-21

Average of (B) and (E) for 17-18 through 19-20

#### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B) Actual Reported	(C) Expected Reported	(D) Actual Reported	(E)	(F) Actual Paid	(G) Expected Paid	(H) Actual Paid	(1)	(J) Expected Ultimate	(K) Actual Ultimate	(L)
Accident Period	Losses 6/30/2020	Losses 12/31/2020	Losses 12/31/2020	Percent Difference	Losses 6/30/2020	Losses 12/31/2020	Losses 12/31/2020	Percent Difference	Losses 6/30/2020	Losses 12/31/2020	Percent Difference
7/1/02-03	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	0.0%
7/1/03-04	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	0.0%
7/1/04-05	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	0.0%
7/1/05-06	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	0.0%
7/1/06-07	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	0.0%
7/1/07-08	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	0.0%
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	0.0%
7/1/09-10	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	0.0%
7/1/10-11	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	0.0%
7/1/11-12	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	0.0%
7/1/12-13	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	0.0%
7/1/13-14	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	0.0%
7/1/14-15	\$1,163,213	\$1,164,677	\$1,107,640	-4.9%	\$1,005,084	\$1,071,537	\$1,011,872	-5.6%	\$1,167,000	\$1,110,000	-4.9%
7/1/15-16	\$1,120,077	\$1,123,939	\$1,114,040	-0.9%	\$1,020,269	\$1,065,439	\$1,026,848	-3.6%	\$1,130,000	\$1,119,000	-1.0%
7/1/16-17	\$1,205,255	\$1,215,308	\$1,205,255	-0.8%	\$963,388	\$1,072,724	\$1,000,113	-6.8%	\$1,231,000	\$1,215,000	-1.3%
7/1/17-18	\$938,403	\$957,268	\$915,912	-4.3%	\$579,729	\$739,935	\$621,489	-16.0%	\$987,000	\$961,000	-2.6%
7/1/18-19	\$1,038,474	\$1,079,320	\$1,033,444	-4.3%	\$652,301	\$824,861	\$783,981	-5.0%	\$1,147,000	\$1,124,000	-2.0%
7/1/19-20	\$1,411,066	\$1,411,066	\$1,309,491	-7.2%	\$704,657	\$921,945	\$898,995	-2.5%	\$1,551,000	\$1,519,000	-2.1%
7/1/20-21		\$713,780	\$482,746	-32.4%		\$308,317	\$149,126	-51.6%	\$1,583,000	\$1,117,000	-29.4%
Total	\$14,907,010	\$15,695,881	\$15,199,051	-3.2%	\$12,955,950	\$14,035,280	\$13,522,946	-3.7%	\$16,826,522	\$16,195,522	-3.8%

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 6/30/2020 (C) and (G) - Based on information available as of 6/30/2020 (D) and (H) - Exhibit 1-C

<sup>(</sup>E) = [(D)/(C)] - 1 (I) = [(H)/(G)] - 1

<sup>(</sup>K) - Exhibit 3

<sup>(</sup>L) = [(K)/(J)] - 1

#### Comparison of Results with Previous Estimates as of 1/31/20

(A)	(B) Actual	(C) Expected	(D) Actual	(E)	(F) Actual	(G) Expected	(H) Actual	(1)	(J) Expected	(K) Actual	(L)
*****	Reported	Reported	Reported		Paid	Paid	Paid	- Service - Service	Ultimate	Ultimate	600.000
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	1/31/2020	12/31/2020	12/31/2020	Difference	1/31/2020	12/31/2020	12/31/2020	Difference	1/31/2020	12/31/2020	Difference
7/1/02-03	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	0.0%
7/1/03-04	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	0.0%
7/1/04-05	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	0.0%
7/1/05-06	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	0.0%
7/1/06-07	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	0.0%
7/1/07-08	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	0.0%
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	0.0%
7/1/09-10	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	0.0%
7/1/10-11	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	0.0%
7/1/11-12	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	0.0%
7/1/12-13	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	0.0%
7/1/13-14	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	0.0%
7/1/14-15	\$1,163,213	\$1,165,457	\$1,107,640	-5.0%	\$956,177	\$1,087,066	\$1,011,872	-6.9%	\$1,167,000	\$1,110,000	-4.9%
7/1/15-16	\$1,145,708	\$1,151,241	\$1,114,040	-3.2%	\$998,168	\$1,095,646	\$1,026,848	-6.3%	\$1,155,000	\$1,119,000	-3.1%
7/1/16-17	\$1,205,255	\$1,220,608	\$1,205,255	-1.3%	\$956,187	\$1,125,394	\$1,000,113	-11.1%	\$1,231,000	\$1,215,000	-1.3%
7/1/17-18	\$933,403	\$965,120	\$915,912	-5.1%	\$569,918	\$816,690	\$621,489	-23.9%	\$987,000	\$961,000	-2.6%
7/1/18-19	\$1,002,844	\$1,085,396	\$1,033,444	-4.8%	\$558,206	\$866,509	\$783,981	-9.5%	\$1,147,000	\$1,124,000	-2.0%
7/1/19-20	\$1,075,364	\$1,593,146	\$1,309,491	-17.8%	\$356,050	\$1,041,722	\$898,995	-13.7%	\$1,801,000	\$1,519,000	-15.7%
Total	\$14,556,309	\$15,211,489	\$14,716,304	-3.3%	\$12,425,228	\$14,063,549	\$13,373,820	-4.9%	\$15,518,522	\$15,078,522	-2.8%

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 1/31/2020

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 1/31/2020
(C) and (G) - Based on information available as of 1/31/2020
(D) and (H) - Exhibit 1-C
(E) = [(D) / (C)] - 1
(I) = [(H) / (G)] - 1
(K) - Exhibit 3
(L) = [(K) / (J)] - 1

Automobile Liability

## Estimated Outstanding Losses As of December 31, 2020

(A)	(B) Estimated	(C) Limited	(D) Limited	(E) Limited	(F)	(G)	
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding	
Period	Losses	Losses	Losses	Reserves	Losses	Losses	
7/1/02-03	\$65,087	\$65,087	\$65,087	\$0	\$0	\$0	
7/1/03-04	\$357,297	\$357,297	\$357,297	\$0	\$0	\$0	
7/1/04-05	\$618,336	\$618,336	\$618,336	\$0	\$0	\$0	
7/1/05-06	\$450,928	\$450,928	\$450,928	\$0	\$0	\$0	
7/1/06-07	\$535,205	\$535,205	\$535,205	\$0	\$0	\$0	
7/1/07-08	\$759,907	\$759,907	\$759,907	\$0	\$0	\$0	
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	\$0	\$0	\$0	
7/1/09-10	\$703,413	\$703,413	\$703,413	\$0	\$0	\$0	
7/1/10-11	\$843,333	\$843,333	\$843,333	\$0	\$0	\$0	
7/1/11-12	\$948,511	\$948,511	\$948,511	\$0	\$0	\$0	
7/1/12-13	\$625,317	\$625,317	\$625,317	\$0	\$0	\$0	
7/1/13-14	\$699,842	\$699,842	\$699,842	\$0	\$0	\$0	
7/1/14-15	\$1,110,000	\$1,011,872	\$1,107,640	\$95,768	\$2,000	\$98,000	
7/1/15-16	\$1,119,000	\$1,026,848	\$1,114,040	\$87,192	\$5,000	\$92,000	
7/1/16-17	\$1,215,000	\$1,000,113	\$1,205,255	\$205,142	\$10,000	\$215,000	
7/1/17-18	\$961,000	\$621,489	\$915,912	\$294,423	\$45,000	\$340,000	
7/1/18-19	\$1,124,000	\$783,981	\$1,033,444	\$249,463	\$91,000	\$340,000	
7/1/19-20	\$1,519,000	\$898,995	\$1,309,491	\$410,496	\$210,000	\$620,000	
7/1-12/31/20	\$559,000	\$149,126	\$482,746	\$333,620	\$76,000	\$410,000	
Total	\$15,638,000	\$13,522,946	\$15,199,051	\$1,676,104	\$439,000	\$2,115,000	

1/1-6/30/21 \$558,000

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Exhibit 1-C

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)

## Projected Outstanding Losses As of June 30, 2021

(A)	(B)	(C)	(D)	(E)	(F)	(G)
Assidont	Estimated	Projected	Projected	Limited	IDAID	Outstanding
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$65,087	\$65,087	\$65,087	\$0	\$0	\$0
7/1/03-04	\$357,297	\$357,297	\$357,297	\$0	\$0	\$0
7/1/04-05	\$618,336	\$618,336	\$618,336	\$0	\$0	\$0
7/1/05-06	\$450,928	\$450,928	\$450,928	\$0	\$0	\$0
7/1/06-07	\$535,205	\$535,205	\$535,205	\$0	\$0	\$0
7/1/07-08	\$759,907	\$759,907	\$759,907	\$0	\$0	\$0
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	\$0	\$0	\$0
7/1/09-10	\$703,413	\$703,413	\$703,413	\$0	\$0	\$0
7/1/10-11	\$843,333	\$843,333	\$843,333	\$0	\$0	\$0
7/1/11-12	\$948,511	\$948,511	\$948,511	\$0	\$0	\$0
7/1/12-13	\$625,317	\$625,317	\$625,317	\$0	\$0	\$0
7/1/13-14	\$699,842	\$699,842	\$699,842	\$0	\$0	\$0
7/1/14-15	\$1,110,000	\$1,041,000	\$1,108,000	\$67,000	\$2,000	\$69,000
7/1/15-16	\$1,119,000	\$1,055,000	\$1,115,000	\$60,000	\$4,000	\$64,000
7/1/16-17	\$1,215,000	\$1,068,000	\$1,208,000	\$140,000	\$7,000	\$147,000
7/1/17-18	\$961,000	\$730,000	\$932,000	\$202,000	\$29,000	\$231,000
7/1/18-19	\$1,124,000	\$889,000	\$1,074,000	\$185,000	\$50,000	\$235,000
7/1/19-20	\$1,519,000	\$1,066,000	\$1,309,000	\$243,000	\$210,000	\$453,000
7/1/20-21	\$1,117,000	\$492,000	\$987,000	\$495,000	\$130,000	\$625,000
Total	\$16,196,000	\$14,371,522	\$15,763,522	\$1,392,000	\$432,000	\$1,824,000

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Projected using loss development factors

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)

#### **Automobile Liability**

## **Average Ultimate Claim Sizes**

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Accident Period	Reported Claims	Reported Claim Development	Estimated Ultimate Claims	Estimated Ultimate Losses	Estimated Average Ultimate Claim	Exposure (Vehicles)	Loss Rate
Terrod	Cidinis	Development	Cidiiiis	203323	Cidiiii	( verneres)	nace
7/1/02-03	24	1.000	24.0	\$65,087	\$2,700		
7/1/03-04	81	1.000	81.0	\$357,297	\$4,400		
7/1/04-05	109	1.000	109.0	\$618,336	\$5,700	5,046	\$123
7/1/05-06	134	1.000	134.0	\$450,928	\$3,400	6,391	\$71
7/1/06-07	145	1.000	145.0	\$535,205	\$3,700	7,050	\$76
7/1/07-08	178	1.000	178.0	\$759,907	\$4,300	7,782	\$98
7/1/08-09	207	1.000	207.0	\$1,423,346	\$6,900	7,675	\$185
7/1/09-10	182	1.000	182.0	\$703,413	\$3,900	8,346	\$84
7/1/10-11	187	1.000	187.0	\$843,333	\$4,500	9,059	\$93
7/1/11-12	177	1.000	177.0	\$948,511	\$5,400	6,650	\$143
7/1/12-13	162	1.000	162.0	\$625,317	\$3,900	6,979	\$90
7/1/13-14	186	1.000	186.0	\$699,842	\$3,800	7,460	\$94
7/1/14-15	226	1.000	226.0	\$1,110,000	\$4,900	9,047	\$123
7/1/15-16	227	1.000	227.0	\$1,119,000	\$4,900	9,517	\$118
7/1/16-17	207	1.000	207.0	\$1,215,000	\$5,900	10,334	\$118
7/1/17-18	166	1.000	166.0	\$961,000	\$5,800	10,113	\$95
7/1/18-19	195	1.000	195.0	\$1,124,000	\$5,800	11,525	\$98
7/1/19-20	195	1.002	195.3	\$1,519,000	\$7,800	12,963	\$117
7/1/20-21	65	2.003	177.0	\$1,117,000	\$6,300	13,059	\$86
7/1/21-22			223.9	\$1,485,000	\$6,600	13,074	\$114
Total	3053		3389.2699	\$17,680,522	\$5,200	162,069	\$109

<sup>- 7/1/21-22</sup> from forecast

<sup>(</sup>B) - Exhibit 1-A

<sup>(</sup>C) - Appendix A3

<sup>(</sup>D) = (B)  $\times$  (C), BF estimate for 20-21, forecast for 21-22

<sup>(</sup>E) = Exhibit 3, Forecast for 21-22

<sup>(</sup>F) = (E) / (D)

<sup>(</sup>G) - Exhibit 1-A, provided by OSIG

<sup>(</sup>H) = (E) / (G)

### **Estimation of Cumulative Reported Loss Development Factors** Using "The Method of Least Squares"

2.2 1710			Transforme	ed Values for	Regression			Fitte	d Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Accident Year	х	Cumulative Factor Y
							7/1/02-03	222.0	1.000
24	1.127	-3.3673	-2.0658	11.339	4.2675	6.9562	7/1/03-04	210	1.000
36	1.037	-3.7136	-3.3001	13.791	10.8904	12.2550	7/1/04-05	198	1.000
48	1.011	-3.9703	-4.5067	15.763	20.3102	17.8928	7/1/05-06	186	1.000
60	1.006	-4.1744	-5.1152	17.426	26.1649	21.3527	7/1/06-07	174	1.000
		1				0.00	7/1/07-08	162	1.000
							7/1/08-09	150	1.000
							7/1/09-10	138	1.000
							7/1/10-11	126	1.000
							7/1/11-12	114	1.001
							7/1/12-13	102	1.001
S	um	-15.2255	-14.9877	58.3180	61.6329	58.4567	7/1/13-14	90	1.001
Ave	erage	-3.8064	-3.7469	14.5795	15.4082	14.6142	7/1/14-15	78	1.002
							7/1/15-16	66	1.004
							7/1/16-17	54	1.008
						0.4	7/1/17-18	42	1.020
							7/1/18-19	30	1.062
N =	4	/ [					7/1/19-20	18	1.129
A =	5.900E+04		100				7/1/20-21	6	2.258

		4	N =
7.5		5.900E+04	A =
0.995090	R^2 =	3.870	B =
		5	C =

<sup>\* -</sup> Appendix A4

# Estimation of Cumulative Paid Loss Development Factors Using "The Method of Least Squares"

Curve:  $Y = A(1/(X+C))^B + 1$  (Modified Inverse Power Curve)

			Transform	ed Values for	Regression			Fitte	d Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Accident Year	х	Cumulative Factor Y
12	2.027	-5.1761	0.0262	26.793	0.0007	-0.1358	7/1/02-03	222.0	1.000
24	1.394	-5.2417	-0.9306	27.476	0.8660	4.8779	7/1/03-04	210	1.000
36	1.154	-5.3033	-1.8700	28.125	3.4969	9.9172	7/1/04-05	198	1.000
48	1.071	-5.3613	-2.6393	28.743	6.9661	14.1503	7/1/05-06	186	1.000
60	1.030	-5.4161	-3.4999	29.334	12.2494	18.9559	7/1/06-07	174	1.000
		10000					7/1/07-08	162	1.000
							7/1/08-09	150	1.000
							7/1/09-10	138	1.000
							7/1/10-11	126	1.001
							7/1/11-12	114	1.001
							7/1/12-13	102	1.003
S	um	-26.4986	-8.9136	140.4711	23.5791	47.7655	7/1/13-14	90	1.005
Ave	erage	-5.2997	-1.7827	28.0942	4.7158	9.5531	7/1/14-15	78	1.010
						A	7/1/15-16	66	1.021
							7/1/16-17	54	1.046
							7/1/17-18	42	1.104
							7/1/18-19	30	1.249
N =	5	Y ====					7/1/19-20	18	1.629
A =	7.323E+32		Kerney S				7/1/20-21	6	4.628

<sup>\* -</sup> Appendix A5

C =

165

## Automobile Liability

## Estimation of Cumulative Reported Claim Development Factors Using "The Method of Least Squares"

4-34			Transforme	ed Values for	Regression		-	Fitte	d Values
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Accident Year	х	Cumulative Factor Y
12	1.002	-2.4849	-6.4341	6.175	41.3982	15.9883	7/1/02-03	222.0	1.000
24	1.002	-3.1781	-6.4341	10.100	41.3982	20,4481	7/1/03-04	210	1.000
		to the same					7/1/04-05	198	1.000
							7/1/05-06	186	1.000
							7/1/06-07	174	1.000
							7/1/07-08	162	1.000
							7/1/08-09	150	1.000
							7/1/09-10	138	1.000
	4.3						7/1/10-11	126	1.000
							7/1/11-12	114	1.000
							7/1/12-13	102	1,000
S	um	-5.6630	-12.8683	16.2748	82.7964	36.4363	7/1/13-14	90	1.000
Ave	erage	-2.8315	-6.4341	8.1374	41.3982	18.2182	7/1/14-15	78	1.000
							7/1/15-16	66	1.000
							7/1/16-17	54	1.000
							7/1/17-18	42	1.000
							7/1/18-19	30	1.000
N =	2			100			7/1/19-20	18	1.002
A =	1.606E-03						7/1/20-21	6	2.003

c =	0	
B =	0.000	R^2 =
A =	1.606E-03	
14 -	2	

<sup>\* -</sup> Appendix A6

#### Analysis of Reported Loss Development Total Loss and ALAE Net of Member Deductibles

				(months):	nd ALAE as of	orted Losses a	Repo			
120	108	96	84	72	60	48	36	24	12	Year
\$1,097,512	\$1,097,512	\$1,097,512	\$1,097,512	\$1,145,262	\$1,145,262	\$1,145,262	\$1,133,243	\$1,095,895	\$1,047,750	7/1/04-05
\$450,928	\$450,928	\$450,928	\$450,928	\$450,928	\$450,928	\$632,070	\$662,524	\$547,145	\$456,117	7/1/05-06
\$549,344	\$549,344	\$549,344	\$549,344	\$549,344	\$549,344	\$524,344	\$583,493	\$608,898	\$890,604	7/1/06-07
\$759,907	\$759,907	\$759,907	\$759,907	\$759,907	\$856,441	\$856,228	\$855,237	\$783,605	\$847,622	7/1/07-08
\$1,465,586	\$1,465,586	\$1,465,586	\$1,465,586	\$1,576,121	\$1,594,733	\$1,664,608	\$1,741,617	\$1,726,246	\$1,417,952	7/1/08-09
\$703,413	\$703,413	\$706,085	\$706,085	\$706,085	\$701,085	\$725,680	\$725,671	\$765,020	\$941,486	7/1/09-10
\$882,016	\$882,016	\$882,016	\$882,016	\$882,016	\$882,516	\$882,516	\$858,871	\$880,763	\$942,102	7/1/10-11
	\$948,511	\$973,586	\$973,586	\$1,003,435	\$1,003,435	\$1,002,546	\$1,000,368	\$965,945	\$987,456	7/1/11-12
		\$661,103	\$661,103	\$661,103	\$661,103	\$661,103	\$663,518	\$702,440	\$777,945	7/1/12-13
			\$730,549	\$705,549	\$705,549	\$731,921	\$731,921	\$737,621	\$878,884	7/1/13-14
				\$1,395,815	\$1,433,246	\$1,483,264	\$1,251,043	\$947,227	\$909,436	7/1/14-15
					\$1,200,038	\$1,260,860	\$1,234,344	\$1,173,527	\$1,112,258	7/1/15-16
						\$1,259,602	\$1,249,602	\$1,168,469	\$1,204,106	7/1/16-17
							\$1,016,653	\$899,537	\$940,038	7/1/17-18
								\$1,038,474	\$1,281,141	7/1/18-19
									\$1,600,169	7/1/19-20

				Age-to-A	ge Factors					
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/04-05	1.046	1.034	1.011	1.000	1.000	0.958	1.000	1.000	1.000	
7/1/05-06	1.200	1.211	0.954	0.713	1.000	1.000	1.000	1.000	1.000	
7/1/06-07	0.684	0.958	0.899	1.048	1.000	1.000	1.000	1.000	1.000	
7/1/07-08	0.924	1.091	1.001	1.000	0.887	1.000	1.000	1.000	1.000	
7/1/08-09	1.217	1.009	0.956	0.958	0.988	0.930	1.000	1.000	1.000	
7/1/09-10	0.813	0.949	1.000	0.966	1.007	1.000	1.000	0.996	1.000	
7/1/10-11	0.935	0.975	1.028	1.000	0.999	1.000	1.000	1.000	1.000	
7/1/11-12	0.978	1.036	1.002	1.001	1.000	0.970	1.000	0.974		
7/1/12-13	0.903	0.945	0.996	1.000	1.000	1.000	1,000			
7/1/13-14	0.839	0.992	1.000	0.964	1.000	1.035				
7/1/14-15	1.042	1.321	1.186	0.966	0.974					
7/1/15-16	1.055	1.052	1,021	0.952						
7/1/16-17	0.970	1.069	1.008							
7/1/17-18	0.957	1.130								
7/1/18-19	0.811									
Average	0.958	1.055	1.005	0.964	0.987	0.989	1.000	0.996	1.000	
Wtd. Avg.	0.959	1.054	1.011	0.967	0.985	0.981	1.000	0.996	1.000	
5 year average	0.967	1.113	1.042	0.977	0.995	1.001	1.000	0.994	1.000	
OK Benchmark	1,347	1.092	1.023	1.010	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.000	1.060	1.026	1.010	1.005	1.000	1.000	1.000	1.000	1.000
	12	24	36	48	60	72	84	96	108	120
Selected	1,000	1.087	1.026	1.005	1.005	1.001	1.000	1.000	1.000	1.000
Cumulative	1.127	1.127	1.037	1.011	1.006	1.001	1.000	1.000	1.000	1.000

#### Analysis of Paid Loss Development Total Loss and ALAE Net of Member Deductibles

				nonths):	ALAE as of (n	d Losses and	Pai			
120	108	96	84	72	60	48	36	24	12	Year
\$1,097,51	\$1,097,512	\$1,097,512	\$1,097,512	\$1,097,512	\$1,095,262	\$1,095,262	\$1,035,459	\$848,811	\$373,545	7/1/04-05
\$450,92	\$450,928	\$450,928	\$450,928	\$450,928	\$450,928	\$415,031	\$386,966	\$315,713	\$245,922	7/1/05-06
\$549,34	\$549,344	\$549,344	\$549,344	\$549,344	\$549,344	\$524,344	\$488,241	\$364,626	\$306,414	7/1/06-07
\$759,90	\$759,907	\$759,907	\$759,907	\$759,907	\$726,360	\$711,020	\$699,055	\$542,781	\$382,647	7/1/07-08
\$1,465,58	\$1,465,586	\$1,465,586	\$1,465,586	\$1,439,750	\$1,427,617	\$1,312,558	\$1,233,445	\$1,042,468	\$527,674	7/1/08-09
\$703,41	\$703,413	\$687,068	\$687,068	\$686,578	\$682,330	\$677,216	\$662,046	\$567,769	\$454,322	7/1/09-10
\$882,01	\$882,016	\$882,016	\$882,016	\$882,016	\$882,516	\$882,516	\$836,794	\$711,060	\$398,166	7/1/10-11
	\$948,511	\$948,291	\$947,823	\$948,005	\$940,184	\$935,985	\$875,075	\$793,177	\$636,923	7/1/11-12
		\$661,103	\$661,103	\$661,103	\$661,103	\$661,103	\$661,008	\$492,970	\$384,700	7/1/12-13
			\$730,549	\$705,549	\$705,549	\$704,744	\$703,536	\$688,008	\$489,337	7/1/13-14
				\$1,230,410	\$1,126,059	\$1,099,572	\$825,663	\$598,952	\$489,849	7/1/14-15
					\$1,094,827	\$1,029,781	\$999,322	\$780,728	\$612,592	7/1/15-16
						\$989,695	\$968,458	\$879,661	\$544,386	7/1/16-17
							\$579,729	\$532,337	\$390,369	7/1/17-18
								\$652,301	\$536,211	7/1/18-19
									\$704,657	7/1/19-20

				Age-to-Ag	ge Factors					
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/04-05	2.272	1.220	1.058	1.000	1.002	1.000	1.000	1.000	1.000	
7/1/05-06	1.284	1.226	1.073	1.086	1.000	1.000	1.000	1.000	1.000	
7/1/06-07	1.190	1.339	1.074	1.048	1.000	1.000	1.000	1.000	1.000	
7/1/07-08	1.418	1.288	1.017	1.022	1.046	1.000	1.000	1.000	1.000	
7/1/08-09	1.976	1.183	1.064	1.088	1.008	1.018	1.000	1.000	1.000	
7/1/09-10	1.250	1.166	1.023	1.008	1.006	1.001	1.000	1.024	1.000	
7/1/10-11	1.786	1.177	1.055	1.000	0.999	1.000	1.000	1.000	1.000	
7/1/11-12	1.245	1.103	1.070	1.004	1.008	1.000	1.000	1.000		
7/1/12-13	1.281	1.341	1.000	1.000	1.000	1.000	1.000			
7/1/13-14	1.406	1.023	1.002	1.001	1.000	1.035				
7/1/14-15	1.223	1.379	1.332	1.024	1.093					
7/1/15-16	1.274	1.280	1.030	1.063						
7/1/16-17	1.616	1.101	1.022							
7/1/17-18	1.364	1.089								
7/1/18-19	1.217									
Average	1.453	1.208	1.063	1.029	1.015	1.005	1.000	1,003	1.000	
Wtd. Avg.	1.449	1.196	1.064	1.029	1.018	1.006	1.000	1.002	1.000	
5 year average	1.339	1.174	1.077	1.019	1.020	1.007	1.000	1.005	1.000	
OK benchmark	1.622	1.372	1.054	1.040	1.018	1.004	1.000	1.000	1.000	1.000
Prior	1.426	1.225	1.087	1.033	1.013	1.004	1.000	1.000	1.000	1.000
	12	24	36	48	60	72	84	96	108	120
Selected	1.453	1.208	1.077	1.040	1.020	1.010	1.000	1.000	1.000	1.000
Cumulative	2.027	1.394	1.154	1.071	1.030	1.010	1.000	1.000	1.000	1.000

#### **Analysis of Reported Occurrences**

			Rep	orted Claims	as of (months	5):				
Year	12	24	36	48	60	72	84	96	108	120
7/1/04-05		108	109	109	109	109	109	109	109	109
7/1/05-06	133	134	135	134	134	134	134	134	134	134
7/1/06-07	142	143	145	145	145	145	145	145	145	145
7/1/07-08	172	178	178	178	178	178	178	178	178	178
7/1/08-09	205	207	207	207	207	207	207	207	207	207
7/1/09-10	183	182	182	182	182	182	182	182	182	182
7/1/10-11	182	187	188	188	188	187	187	187	187	187
7/1/11-12	177	178	177	177	177	177	177	177	177	
7/1/12-13	163	164	164	162	162	162	162	162		
7/1/13-14	196	185	185	185	185	185	186			
7/1/14-15	228	225	226	226	226	226	Jan 31,51			
7/1/15-16	225	227	226	226	227	77.0				
7/1/16-17	213	206	207	207						
7/1/17-18	191	167	166	207						
7/1/18-19	231	194	100							
7/1/19-20	204	134								
7/1/15-20	204									
	3.5	rail les	74.74	Age-to-Age		Service I	0.004	26.926	1007000	163 1
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/04-05		1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/05-06	1.008	1.007	0.993	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/06-07	1.007	1.014	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/07-08	1.035	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/08-09	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/09-10	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/10-11	1.027	1.005	1.000	1.000	0.995	1,000	1.000	1.000	1.000	
7/1/11-12	1.006	0.994	1.000	1.000	1.000	1:000	1.000	1.000		
7/1/12-13	1.006	1.000	0.988	1.000	1.000	1.000	1.000			
7/1/13-14	0.944	1.000	1,000	1.000	1.000	1.005				
7/1/14-15	0.987	1.004	1.000	1.000	1.000					
7/1/15-16	1.009	0.996	1.000	1.004						
7/1/16-17	0.967	1.005	1.000							
7/1/17-18	0.874	0.994								
7/1/18-19	0.840									
verage	0.980	1.002	0.998	1.000	1.000	1.001	1.000	1.000	1.000	
Vtd. Avg.	0.976	1.002	0.999	1.000	0.999	1.001	1.000	1.000	1.000	
year average	0.935	1.000	0.998	1.001	0.999	1.001	1.000	1.000	1.000	
K benchmark	1.128	1.005	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000
rior	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1101	1,000	1.002	1.000	1.000	1.000	1.000	2.000	2,000	2.000	2.500
	12	24	36	48	60	72	84	96	108	120
elected	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### Derivation of Lognomoral Parameters Based on Reported Loss Development

			Natural	Logarithm of	Age to Age F	actors				
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/04-05	0.045	0.034	0.011	0.000	0.000	-0.043	0.000	0,000	0.000	
7/1/05-06	0.182	0.191	-0.047	-0.338	0.000	0.000	0.000	0.000	0.000	
7/1/06-07	-0.380	-0.043	-0.107	0.047	0.000	0.000	0.000	0.000	0.000	
7/1/07-08	-0.079	0.087	0.001	0.000	-0.120	0.000	0.000	0.000	0.000	
7/1/08-09	0.197	0.009	-0.045	-0.043	-0.012	-0.073	0.000	0.000	0.000	
7/1/09-10	-0.208	-0.053	0.000	-0.034	0.007	0.000	0,000	-0.004	0.000	
7/1/10-11	-0.067	-0.025	0.027	0.000	-0.001	0.000	0.000	0.000	0.000	
7/1/11-12	-0.022	0.035	0.002	0.001	0.000	-0.030	0.000	-0.026		
7/1/12-13	-0.102	-0.057	-0.004	0.000	0.000	0.000	0.000			
7/1/13-14	-0.175	-0.008	0.000	-0.037	0.000	0.035				
7/1/14-15	0.041	0.278	0.170	-0.034	-0.026					
7/1/15-16	0.054	0.051	0.021	-0.049						
7/1/16-17	-0.030	0.067	0.008							
7/1/17-18	-0.044	0.122								
7/1/18-19	-0.210									
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	
ariance	0.023	0.009	0.004	0.009	0.001	0.001	0.000	0.000	0.000	
um. Variance	0.048	0.025	0.016	0.012	0.002	0.001	0.000	0.000	0.000	
	0.219	0.158	0.125	0.108	0.048	0.031	0.009	0.009	0.000	



## Section 6

## Exhibits – Property including APD

Exhibit 1	Summary of Data Large Loss Listing Calculation of Limited Losses
Exhibit 2	Loss Development Methods Bornhuetter-Ferguson Methods
Exhibit 3	Summary and Selection of Ultimate Losses
Exhibit 4	Comparison to Previous Actuarial Report
Exhibit 5	Outstanding Losses as of 12/31/2020 Projected Outstanding Losses and IBNR as of 6/30/2021
Exhibit 6	Historical Claim Frequency, Severity and Loss Rates
Appendix A	Loss Development Factors

#### Summary of Loss Data as of December 31, 2020 Total Experience Net of Deductibles

(A)	(B)	(C)	(1	0)	(E)	(F)	(G)	(H) Expense	(1)	(1)
Accident Period	Evaluation Date	Maturity (months)	Total Claims	Open Claims	Loss Payment	Loss Reserve	Expense and Legal Payment	and Legal Reserve	Total Reported	Total Insured Value in \$100s
7/1/02-03	12/31/2020	222	24	0	\$282,938	\$0	\$29,106	\$0	\$312,045	
7/1/03-04	12/31/2020	210	104	0	\$2,447,356	\$0	\$66,143	\$0	\$2,513,499	
7/1/04-05	12/31/2020	198	122	0	\$1,235,815	\$0	\$69,782	\$0	\$1,305,598	\$37,566,889
7/1/05-06	12/31/2020	186	190	0	\$3,080,547	\$0	\$142,157	\$0	\$3,222,704	\$50,583,768
7/1/06-07	12/31/2020	174	232	0	\$7,508,252	\$0	\$164,672	\$0	\$7,672,924	\$63,964,027
7/1/07-08	12/31/2020	162	255	0	\$27,287,989	\$0	\$261,094	\$0	\$27,549,083	\$70,532,585
7/1/08-09	12/31/2020	150	211	0	\$14,557,521	\$0	\$226,138	\$0	\$14,783,659	\$74,780,448
7/1/09-10	12/31/2020	138	266	0	\$17,140,491	\$0	\$250,287	\$0	\$17,390,777	\$78,018,968
7/1/10-11	12/31/2020	126	225	0	\$26,419,286	\$0	\$52,656	\$0	\$26,471,942	\$82,140,365
7/1/11-12	12/31/2020	114	173	0	\$3,946,066	\$0	\$72,423	\$0	\$4,018,489	\$75,216,040
7/1/12-13	12/31/2020	102	163	0	\$6,097,006	\$0	\$39,448	\$0	\$6,136,455	\$67,433,533
7/1/13-14	12/31/2020	90	157	0	\$4,537,170	\$0	\$53,119	\$0	\$4,590,290	\$72,841,534
7/1/14-15	12/31/2020	78	208	1	\$7,111,878	\$342,706	\$59,081	\$255,028	\$7,768,693	\$82,912,577
7/1/15-16	12/31/2020	66	182	2	\$13,341,328	\$1,388,670	\$72,430	\$47,183	\$14,849,611	\$83,651,052
7/1/16-17	12/31/2020	54	228	6	\$9,564,517	\$1,593,755	\$87,307	\$37,754	\$11,283,333	\$95,166,463
7/1/17-18	12/31/2020	42	194	7	\$15,259,962	\$6,840,469	\$128,572	\$252,683	\$22,481,686	\$91,897,115
7/1/18-19	12/31/2020	30	217	12	\$25,973,562	\$6,754,437	\$106,856	\$55,517	\$32,890,372	\$120,498,610
7/1/19-20	12/31/2020	18	231	38	\$35,094,691	\$41,201,107	\$165,386	\$75,360	\$76,536,545	\$157,176,298
7/1/20-21 7/1/21-22	12/31/2020	6	111	74	\$2,963,041	\$2,846,328	\$61,825	\$76,993	\$5,948,187	\$164,261,745
2.4.3.2			3493	140	\$223,849,416	\$60,967,473	\$2,108,484	\$800,518	\$287,725,892	\$1,468,642,01

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

<sup>-</sup> Claims are grouped by occurrence, and exclude claims with \$0 incurred

<sup>-</sup> Losses are net of member deductibles

Losses over SIR

CAT# or	Loss	Claim		Paid Pure	Reported Pure			Excess	Excess	Excess	Severity	Net
Occ#	Date	Status	Coverage	Losses	Losses	SIR	Deductibles	Recoveries	Paid	Reported	Factor	Ultimate
20120	o la classa	et et	406	*****	4450.050	<b>*</b> 400.000	£2.500	čen 202	den nen	4en 2en	4 000	daca aca
00120	9/26/2003	Closed	AOP	\$160,863	\$160,863	\$100,000	\$2,500	\$63,363	\$63,363	\$63,363	1,000	\$160,863 \$501,173
00280	4/23/2004	Closed	Wind	\$501,173	\$501,173	\$200,000	\$10,000	\$311,173	\$311,173	\$311,173		
00312	5/29/2004	Closed	Wind AOP	\$1,051,795	\$1,051,795	\$200,000	\$5,000	\$851,795	\$851,795	\$851,795	1,000	\$1,051,79
00622	4/19/2005	Closed		\$137,015	\$137,015	\$100,000	\$2,500	\$38,605	\$38,605	\$38,605		
0003	7/3/2005	Closed	Wind	\$509,241	\$509,241	\$200,000	\$15,000	\$329,241	\$329,241	\$329,241	1,000	\$509,241
00974	2/4/2006	Closed	AOP	\$123,265	\$123,265	\$100,000	\$1,000	\$24,265	\$24,265	\$24,265	1,000	\$123,265
0006	3/12/2006	Closed	Wind	\$302,863	\$302,863	\$200,000	\$17,500	\$98,003	\$98,003	\$98,003	1.000	\$302,863
01070	4/1/2006	Closed	Wind	\$249,726	\$249,726	\$200,000	\$10,000	\$54,736	\$54,736	\$54,736	1.000	\$249,726
01069	4/9/2006	Closed	AOP	\$196,964	\$196,964	\$100,000	\$2,500	\$99,464	\$99,464	\$99,464	1.000	\$196,964
0010	1/13/2007	Closed	AOP	\$2,728,534	\$2,728,534	\$100,000	\$125,000	\$2,213,033	\$2,213,033	\$2,213,033	1.000	\$2,728,53
01446	1/14/2007	Closed	AOP	\$2,391,851	\$2,391,851	\$100,000	\$2,500	\$2,294,351		\$2,294,351	1.000	\$2,391,85
01603	4/1/2007	Closed	AOP	\$498,897	\$498,897	\$100,000	\$5,500	\$409,043	\$409,043	\$409,043	1,000	\$498,897
0014	5/26/2007	Closed	AOP	\$258,761	\$258,761	\$100,000	\$125,000	\$151,982	\$151,982	\$151,982	1.000	\$258,761
01932	10/20/2007	Closed	AOP	\$4,417,502	\$4,417,502	\$100,000	\$2,500		\$4,320,002	\$4,320,002	1.000	\$4,417,50
02010	12/10/2007	Closed	AOP	\$7,939,099	\$7,939,099	\$100,000	\$2,500	\$7,839,099		\$7,839,099	1,000	\$7,939,09
02077	1/27/2008	Closed	AOP	\$4,048,087	\$4,048,087	\$100,000	\$5,000	\$3,953,087	\$3,953,087	\$3,953,087	1.000	\$4,048,08
02095	2/12/2008	Closed	AOP	\$1,330,642	\$1,330,642	\$100,000	\$2,500		\$1,233,142	\$1,233,142	1.000	\$1,330,64
02123	2/24/2008	Closed	AOP	\$142,203	\$142,203	\$100,000	\$2,500	\$44,693	\$44,693	\$44,693	1.000	\$142,203
0017	4/9/2008	Closed	Wind	\$642,619	\$642,619	\$200,000	\$68,000	\$497,819	\$497,819	\$497,819	1.000	\$642,619
02205	4/10/2008	Closed	AOP	\$264,208	\$264,208	\$100,000	\$2,500	\$166,708	\$166,708	\$166,708	1.000	\$264,208
02283	5/10/2008	Closed	Wind	\$1,079,655	\$1,079,655	\$200,000	\$5,000	\$884,655	\$884,655	\$884,655	1.000	\$1,079,655
0020	5/22/2008	Closed	Wind	\$737,893	\$737,893	\$200,000	\$20,000	\$537,893	\$537,893	\$537,893	1.000	\$737,893
0022	6/1/2008	Closed	Wind	\$2,874,505	\$2,874,505	\$200,000	\$47,000	\$2,755,868		\$2,755,868	1.000	\$2,874,50
0019	6/5/2008	Closed	Wind	\$1,617,657	\$1,617,657	\$200,000	\$50,000	\$1,400,637		\$1,400,637	1.000	\$1,617,65
02412	7/15/2008	Closed	AOP	\$118,000	\$118,000	\$100,000	\$2,500	\$20,500	\$20,500	\$20,500	1,000	\$118,000
02442	8/5/2008	Closed	AOP	\$253,900	\$253,900	\$100,000	\$2,500	\$155,155	\$155,155	\$155,155	1.000	\$253,900
0024	11/5/2008	Closed	Wind	\$1,825,926	\$1,825,926	\$200,000	\$41,000	\$1,620,926		\$1,620,926	1.000	\$1,825,926
2724	1/21/2009	Closed	AOP	\$359,928	\$359,928	\$100,000	\$2,500	\$262,428	\$262,428	\$262,428	1,000	\$359,928
0026	1/26/2009	Closed	AOP	\$333,470	\$333,470	\$100,000	\$38,500	\$233,474	\$233,474	\$233,474	1,000	\$333,470
0027	2/10/2009	Closed	Wind	\$403,324	\$403,324	\$200,000	\$40,000	\$203,324	\$203,324	\$203,324	1.000	\$403,324
2786	2/27/2009	Closed	AOP	\$2,319,259	\$2,319,259	\$100,000	\$2,500	\$2,219,259		\$2,219,259	1.000	\$2,319,255
0030	3/27/2009	Closed	AOP	\$2,372,142	\$2,372,142	\$100,000	\$22,500		\$2,372,114	\$2,372,114	1.000	\$2,372,142
0031	4/9/2009	Closed	Wind	\$855,773	\$855,773	\$200,000	\$35,000	\$660,773	\$660,773	\$660,773	1.000	\$855,773
0033	4/25/2009	Closed	Wind	\$391,102	\$391,102	\$200,000	\$51,000	\$188,354	\$188,354	\$188,354	1.000	\$391,102
0037	4/29/2009	Closed	Wind	\$212,817	\$212,817	\$200,000	\$25,000	\$7,888	\$7,888	\$7,888	1.000	\$212,817
0032	5/1/2009	Closed	AOP	\$1,097,400	\$1,097,400	\$100,000	\$50,000	\$987,387	\$987,387	\$987,387	1.000	\$1,097,400
0034	5/13/2009	Closed	Wind	\$1,363,503	\$1,363,503	\$200,000	\$72,000	\$1,163,503	\$1,163,503	\$1,163,503	1.000	\$1,363,503
0036	6/12/2009	Closed	Wind	\$311,981	\$311,981	\$200,000	\$62,500	\$128,176	\$128,176	\$128,176	1.000	\$311,981
03078	7/21/2009	Closed	Wind	\$332,689	\$332,689	\$200,000	\$10,000	\$132,689	\$132,689	\$132,689	1.000	\$332,689
03081	7/27/2009	Closed	AOP	\$304,502	\$304,502	\$100,000	\$5,000	\$204,502	\$204,502	\$204,502	1.000	\$304,502
3122	8/21/2009	Closed	AOP	\$4,975,483	\$4,975,483	\$100,000	\$2,500	The Manager of the Control	\$4,877,983	\$4,877,983	1.000	\$4,975,483
3138	8/29/2009	Closed	AOP	\$139,641	\$139,641	\$100,000	\$2,500	\$39,641	\$39,641	\$39,641	1,000	\$139,641
3179	9/20/2009	Closed	AOP	\$134,098	\$134,098	\$100,000	\$2,500	\$34,101	\$34,101	\$34,101	1,000	\$134,098
0038	12/27/2009	Closed	AOP	\$206,927	\$206,927	\$100,000	\$12,500	\$102,361	\$102,361	\$102,361	1,000	\$206,927
0039	1/9/2010	Closed	AOP	\$976,159	\$976,159	\$100,000	\$32,500	\$875,889	\$875,889	\$875,889	1.000	\$976,159
0040	1/30/2010	Closed	AOP	\$719,056	\$719,056	\$100,000	\$142,500	\$632,790	\$632,790	\$632,790	1.000	\$719,056
3548	4/4/2010	Closed	AOP	\$189,327	\$189,327	\$100,000	\$2,500	\$91,827	\$91,827	\$91,827	1.000	\$189,327
0041	5/10/2010	Closed	Wind	\$3,827,504	\$3,827,504	\$200,000	\$102,000	\$3,608,302	\$3,608,302	\$3,608,302	1.000	\$3,827,50
0042	5/13/2010	Closed	Wind	\$2,084,566	\$2,084,566	\$200,000	\$65,000	\$1,893,566		\$1,893,566	1.000	\$2,084,566
3604	6/12/2010	Closed	Wind	\$248,774	\$248,774	\$200,000	\$10,000	\$27,083	\$27,083	\$27,083	1,000	\$248,774
90050	8/4/2010	Closed	AOP	\$247,854	\$247,854	\$100,000	\$2,500	\$242,204	\$242,204	\$242,204	1.000	\$247,854
00125	8/6/2010	Closed	AOP	\$105,400	\$105,400	\$100,000	\$2,500	\$0	\$5,400	\$5,400	1.000	\$105,400
90229	10/23/2010	Clased	AOP	\$170,445	\$170,445	\$100,000	\$2,500	\$70,445	\$70,445	\$70,445	1.000	\$170,445
90336	12/30/2010	Closed	AOP	\$854,448	\$854,448	\$100,000	\$2,500	\$754,448	\$754,448	\$754,448	1.000	\$854,448
90334	12/31/2010	Closed	AOP	\$518,228	\$518,228	\$100,000	\$5,000	\$418,228	\$418,228	\$418,228	1.000	\$518,228
0043	2/2/2011	Closed	AOP	\$1,042,859	\$1,042,859	\$100,000	\$85,000	\$942,862	\$942,862	\$942,862	1.000	\$1,042,85
0044	2/3/2011	Closed	AOP	\$536,699	\$536,699	\$100,000	\$10,000	\$455,061	\$455,061	\$455,061	1.000	\$536,699
0045	2/10/2011	Closed	AOP	\$125,469	\$125,469	\$100,000	\$15,000	\$25,469	\$25,469	\$25,469	1.000	\$125,469
0046	2/10/2011	Closed	AOP	\$459,599	\$459,599	\$100,000	\$85,000	\$364,899	\$364,899	\$364,899	1.000	\$459,599
00532	4/8/2011	Closed	AOP	\$181,084	\$181,084	\$100,000	\$2,500	\$81,084	\$81,084	\$81,084	1.000	\$181,084
0048	4/14/2011	Closed	Wind	\$11,842,873	\$11,842,873	\$200,000	\$79,500	\$11,642,991		\$11,642,991	1.000	\$11,842,87
1048												

\$84,779,185 \$84,779,185

\$76,213,724 \$76,219,124 \$76,219,124

Excess paid and incurred losses for closed claims are equal to the excess recoveries, or amounts over SIR if no recovery yet Excess paid and incurred losses for open claims are amounts in excess of SIR regardless of recoveries.

\$200,000 SIR = Wind/Hail \$100,000 SIR = other

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

#### Losses over SIR

CAT# or	Loss	Claim	Catterin	Paid	Reported	CID	Excess	Excess Reported	Severity	Net Ultimat
Occ#	Date	Status	Coverage	Losses	Losses	SIR	Paid	керогтеа	Factor	Uitimai
1234	4/15/2012	Closed	Any	\$485,893	\$485,893	\$250,000	\$235,893	\$235,893	1.000	\$486,0
1287	5/4/2012	Closed	Any	\$483,077	\$483,077	\$250,000	\$233,077	\$233,077	1.000	\$483,2
0999	11/7/2011	Closed	Any	\$426,749	\$426,749	\$250,000	\$176,749	\$176,749	1.000	\$426,8
1351	5/29/2012	Closed	Any	\$340,228	\$340,228	\$250,000	\$90,228	\$90,228	1.000	\$340,3
				Applied to \$	Total Excess Lo 2,700,000 Corri	the state of the s	\$735,946 <b>\$735,946</b>	\$735,946 <b>\$735,946</b>		
	i isa isa da	No.	9200		As and no.	A150.000	44 400 705	44 470 705	4 004	A4 674
152	4/26/2013	Closed	Any	\$1,670,786	\$1,670,786	\$250,000	\$1,420,786	\$1,420,786	1.001	\$1,671,
154	5/30/2013	Closed	Any	\$1,003,799	\$1,003,799	\$250,000	\$753,799	\$753,799	1.001	\$1,004,
392	7/14/2012	Closed	Any	\$570,302	\$570,302	\$250,000	\$320,302	\$320,302	1.001	\$570,6
1814	4/18/2013	Closed	Any	\$454,242	\$454,242	\$250,000	\$204,242	\$204,242	1.001	\$454,5
861 393	4/22/2013 7/16/2012	Closed Closed	Any	\$473,316 \$431,334	\$473,316 \$431,334	\$250,000 \$250,000	\$223,316 \$181,334	\$223,316 \$181,334	1.001	\$473,0
7.5.6			0.00/8							
				Later Control of	Total Excess Lo.		\$3,103,780	\$3,103,780		
				Applied to \$	2,400,000 Corri	idor for 12/13 ess of Corridor	\$2,400,000	\$2,400,000 \$703,780		
					maurea Exec	.ss of corridor	9100,100	\$105,100		
2546	6/28/2014	Closed	Any	\$2,284,671	\$2,284,671	\$250,000	\$2,034,671	\$2,034,671	1.002	\$2,288,
144	11/6/2013	Closed	Any	\$299,442	\$299,442	\$250,000	\$49,442	\$49,442	1.002	\$299,9
					Total Excess Lo.	sses for 13/14	\$2,084,113	\$2,084,113		
				Applied to \$	1,400,000 Corri	dor for 13/14	\$1,400,000	\$1,400,000		
						ess of Corridor	\$684,113	\$684,113		
55	3/25/2015	Open	Any	\$3,275,176	\$3,617,881	\$250,000	\$3,025,176	\$3,367,881	1.004	\$3,632
61	5/19/2015	Closed	Any	\$645,937	\$645,937	\$250,000	\$395,937	\$395,937	1.004	\$648,5
156	5/6/2015	Closed	Any	\$411,091	\$411,091	\$250,000	\$161,091	\$161,091	1.004	\$412,7
164	4/11/2015	Closed		\$351,990	\$351,990	\$250,000	\$101,990	\$101,990	1.004	\$353,
831	12/3/2014	Closed	Any	\$271,103	\$271,103	\$250,000	\$21,103	\$21,103	1.004	\$272,
				and an area	Total Excess Lo.		\$3,705,297	\$4,048,002		
				Applied to \$	1,400,000 Corri	ess of Corridor	\$1,400,000 \$2,305,297	\$1,400,000 \$2,648,002		
	200.000			Sec South Salar	THE STATE OF THE STATE OF	47.40733	100000000000000000000000000000000000000		6 66.3	min scholar
188	5/29/2016	Open	Any	\$7,412,330	\$8,800,000	\$250,000	\$7,162,330	\$8,550,000	1.010	\$8,890
159	5/9/2016	Closed	Any	\$1,227,586	\$1,227,586	\$250,000	\$977,586	\$977,586	1.010	\$1,240
123	5/13/2016	Closed	Any	\$841,935	\$841,935	\$250,000	\$591,935	\$591,935	1.010	\$850,5
63	11/17/2015	Closed	Any	\$815,145	\$815,145	\$250,000	\$565,145	\$565,145	1.010	\$823,
58	4/29/2016	Closed	Any	\$690,183	\$690,183	\$250,000	\$440,183	\$440,183	1.010	\$697,
					Total Excess Lo	sses for 15/16	\$9,737,179	\$11,124,849		
				Applied to \$	1,400,000 Corri	dor for 15/16	\$1,400,000	\$1,400,000		
					Insured exce	ess of Corridor	\$8,337,179	\$9,724,849		
160	7/14/2016	Closed	Any	\$2,619,337	\$2,619,337	\$250,000	\$2,369,337	\$2,369,337	1.027	\$2,688
256	11/16/2016	Open	Any	\$1,131,804	\$2,300,000	\$250,000	\$881,804	\$2,050,000	1.027	\$2,361
64	5/27/2017	Closed	Any	\$1,127,580	\$1,127,580	\$250,000	\$877,580	\$877,580	1.027	\$1,157
806	3/26/2017	Open	Any	\$760,276	\$1,100,000	\$250,000	\$510,276	\$850,000	1.027	\$1,129
959	8/23/2016	Closed	Any	\$458,500	\$458,500	\$250,000	\$208,500	\$208,500	1.027	\$470,
065	6/17/2017	Open	Any	\$339,169	\$377,722	\$250,000	\$89,169	\$127,722	1.027	\$387,
217	12/19/2016	Closed	Any	\$350,995	\$350,995	\$250,000	\$100,995	\$100,995	1.027	\$360,
					Total Excess Lo.	sees for 15/17	\$5,037,661	\$6,584,134		
				Applied to C	1,400,000 Corri		\$1,400,000	\$1,400,000		
				Аррпеи ю э		ess of Corridor	\$3,637,661	\$5,184,134		
	0.000.000		100	A	An ore 100	Aare	A4 PM0 NF -	67 nor 10-	1.000	do 541
628	8/29/2017	Open	Any	\$4,826,356	\$8,055,436	\$250,000	\$4,576,356	\$7,805,436	1.069	\$8,611,
267	3/19/2018	Open	Any	\$2,124,318	\$4,000,000	\$250,000	\$1,874,318	\$3,750,000	1.069	\$4,276
67	5/29/2018	Open	Any	\$3,134,029	\$3,692,112	\$250,000	\$2,884,029	\$3,442,112	1.069	\$3,946
168	6/12/2018	Open	Any	\$1,019,993	\$1,112,423	\$250,000	\$769,993	\$862,423	1.069	\$1,189
71	6/24/2018	Open	Any	\$89,041	\$1,089,041	\$250,000	\$0	\$839,041	1.069	\$1,164
	5/4/2018	Closed	Any	\$733,333	\$733,333	\$250,000	\$483,333	\$483,333	1.069	\$783,9
5052 1879	1/11/2018	Closed	Any	\$357,185	\$357,185	\$250,000	\$107,185	\$107,185	1.069	\$381,8

#### Losses over SIR

CAT# or Occ#	Loss Date	Claim Status	Coverage	Paid Losses	Reported Losses	SIR	Excess Paid	Excess Reported	Severity Factor	Net Ultimate
				Applied to \$	1,400,000 Corri		\$1,400,000	\$1,400,000		
					Insured exce	ss of Corridor	\$9,295,214	\$15,889,529		
0070	5/22/2019	Open	Any	\$9,190,831	\$12,370,488	\$250,000	\$8,940,831	\$12,120,488	1.181	\$14,611,6
0073	6/18/2019	Open	Any	\$6,397,540	\$9,283,467	\$250,000	\$6,147,540	\$9,033,467	1.181	\$10,965,3
95689	4/15/2019	Open	Any	\$2,561,831	\$2,835,000	\$250,000	\$2,311,831	\$2,585,000	1.181	\$3,348,63
077	4/3/2019	Open	Any	\$1,944,718	\$2,090,750	\$250,000	\$1,694,718	\$1,840,750	1.181	\$2,469,53
0076	5/1/2019	Open	Any	\$1,552,790	\$1,638,318	\$250,000	\$1,302,790	\$1,388,318	1.181	\$1,935,13
074	6/23/2019	Open	Any	\$930,455	\$930,495	\$250,000	\$680,455	\$680,495	1.181	\$1,099,07
0069	3/24/2019	Closed	Any	\$714,844	\$714,844	\$250,000	\$464,844	\$464,844	1.181	\$844,35
5851	6/10/2019	Open	Any	\$313,533	\$465,000	\$250,000	\$63,533	\$215,000	1.181	\$549,24
					Total Excess Los	ses for 18/19	\$21,606,541	\$28,328,362		
				Applied to \$	1,400,000 Corri	dor for 18/19	\$1,400,000	\$1,400,000		
				21,602,004	Insured exce	ss of Corridor	\$20,206,541	\$26,928,362		
079	4/21/2020	Open	Wind	\$16,245,600	\$33,877,892	\$500,000	\$15,745,600	\$33,377,892	1.480	\$50,145,9
080	4/28/2020	Open	Wind	\$7,460,356	\$21,214,155	\$500,000	\$6,960,356	\$20,714,155	1.480	\$31,401,1
082	5/4/2020	Open	Wind	\$3,935,088	\$6,571,480	\$500,000	\$3,435,088	\$6,071,480	1.480	\$9,727,0
075	8/26/2019	Open	Wind	\$683,249	\$3,709,283	\$500,000	\$183,249	\$3,209,283	1.480	\$5,490,4
083	4/11/2020	Open	Wind	\$559,202	\$2,076,094	\$500,000	\$59,202	\$1,576,094	1.480	\$3,073,0
078	10/19/2019	Open	Wind	\$1,089,108	\$1,852,299	\$500,000	\$589,108	\$1,352,299	1.480	\$2,741,7
0081	5/7/2020	Open	Wind	\$393,577	\$1,281,082	\$500,000	\$0	\$781,082	1.480	\$1,896,2
085	6/21/2020	Open	Wind	\$662,416	\$875,000	\$500,000	\$162,416	\$375,000	1.480	\$1,295,1
5976	8/27/2019	Open	AOP	\$581,438	\$600,000	\$250,000	\$331,438	\$350,000	1.480	\$888,11
625-20-96800	1/10/2020	Open	Wind	\$173,838	\$240,000	\$500,000	\$0	\$0	1.480	\$355,24
625-20-96558	6/29/2020	Open	Wind	\$154,425	\$220,325	\$500,000	\$0	\$0	1.480	\$326,12
625-20-96543	6/6/2020	Open	AOP	\$202,911	\$220,000	\$250,000	so	\$0	1.480	\$325,64
625-20-96466	3/1/2020	Closed	Wind	\$211,671	\$211,671	\$500,000	\$0	\$0	1.480	\$313,31
					Total Excess Los	ses for 19/20	\$27,466,457	\$67,807,285		
				Applied to \$	1,400,000 Corri	dor for 19/20	\$1,400,000	\$1,400,000		
					Insured exce	ss of Corridor	\$26,066,457	\$66,407,285		
084	7/11/2020	Open	Wind	\$1,338,268	\$2,335,427	\$750,000	\$588,268	\$1,585,427	1.585	\$3,702,7
6642	8/28/2020	Open	AOP	\$426,716	\$550,000	\$250,000	\$176,716	\$300,000	1.585	\$872,00
086	10/27/2020	Open	AOP	\$175,101	\$530,094	\$250,000	\$0	\$280,094	1.585	\$840,44
					Total Excess Los	ses for 20/21	\$764,984	\$2,165,521		
				Applied to \$.	3,000,000 Corri	dor for 20/21	\$764,984	\$2,165,521		
					Insured exce	ss of Corridor	\$0	\$0		

<sup>-</sup> Loss and policy information provided by Jennifer McKenzie, Arthur J. Gallagher Risk Management Services

#### Calculation of Limited Losses

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
		Unlimited	Unlimited	Paid	Reported	Paid	Reported
Policy	Per Ocurrence	Paid	Reported	Excess of	Excess of	Limited to	Limited to
Period	SIR	Loss & ALAE	Loss & ALAE	SIR	SIR	SIR	SIR
7/1/02-03	\$100k/\$200k	\$312,045	\$312,045	\$0	\$0	\$312,045	\$312,045
7/1/03-04	\$100k/\$200k	\$2,513,499	\$2,513,499	\$1,226,330	\$1,226,330	\$1,287,169	\$1,287,169
7/1/04-05	\$100k/\$200k	\$1,305,598	\$1,305,598	\$38,605	\$38,605	\$1,266,993	\$1,266,993
7/1/05-06	\$100k/\$200k	\$3,222,704	\$3,222,704	\$605,708	\$605,708	\$2,616,997	\$2,616,997
7/1/06-07	\$100k/\$200k	\$7,672,924	\$7,672,924	\$5,068,410	\$5,068,410	\$2,604,514	\$2,604,514
7/1/07-08	\$100k/\$200k	\$27,549,083	\$27,549,083	\$23,633,602	\$23,633,602	\$3,915,481	\$3,915,481
7/1/08-09	\$100k/\$200k	\$14,783,659	\$14,783,659	\$10,223,263	\$10,223,263	\$4,560,396	\$4,560,396
7/1/09-10	\$100k/\$200k	\$17,390,777	\$17,390,777	\$12,520,736	\$12,520,736	\$4,870,041	\$4,870,043
7/1/10-11	\$100k/\$200k	\$26,471,942	\$26,471,942	\$22,902,470	\$22,902,470	\$3,569,472	\$3,569,472
7/1/11-12	\$250,000	\$4,018,489	\$4,018,489	\$735,946	\$735,946	\$3,282,543	\$3,282,543
7/1/12-13	\$250,000	\$6,136,455	\$6,136,455	\$3,103,780	\$3,103,780	\$3,032,675	\$3,032,675
7/1/13-14	\$250,000	\$4,590,290	\$4,590,290	\$2,084,113	\$2,084,113	\$2,506,177	\$2,506,17
7/1/14-15	\$250,000	\$7,170,959	\$7,768,693	\$3,705,297	\$4,048,002	\$3,465,662	\$3,720,690
7/1/15-16	\$250,000	\$13,413,757	\$14,849,611	\$9,737,179	\$11,124,849	\$3,676,578	\$3,724,762
7/1/16-17	\$250,000	\$9,651,824	\$11,283,333	\$5,037,661	\$6,584,134	\$4,614,163	\$4,699,199
7/1/17-18	\$250,000	\$15,388,534	\$22,481,686	\$10,695,214	\$17,289,529	\$4,693,320	\$5,192,15
7/1/18-19	\$250,000	\$26,080,418	\$32,890,372	\$21,606,541	\$28,328,362	\$4,473,877	\$4,562,010
7/1/19-20	\$250k/\$500k	\$35,260,078	\$76,536,545	\$27,466,457	\$67,807,285	\$7,793,620	\$8,729,260
7/1/20-21	\$250k/\$750k	\$3,024,866	\$5,948,187	\$764,984	\$2,165,521	\$2,259,882	\$3,782,666
Total		\$225,957,901	\$287,725,892	\$161,156,296	\$219,490,645	\$64,801,605	\$68,235,24

7/1/11-12       \$2,700,000       \$735,946       \$735,9         7/1/12-13       \$2,400,000       \$2,400,000       \$2,400,000         7/1/13-14       \$1,400,000       \$1,400,000       \$1,400,000         7/1/14-15       \$1,400,000       \$1,400,000       \$1,400,000         7/1/15-16       \$1,400,000       \$1,400,000       \$1,400,000	ed
7/1/13-14       \$1,400,000       \$1,400,000       \$1,400,000         7/1/14-15       \$1,400,000       \$1,400,000       \$1,400,000         7/1/15-16       \$1,400,000       \$1,400,000       \$1,400,000	46
7/1/14-15       \$1,400,000       \$1,400,000       \$1,400,000         7/1/15-16       \$1,400,000       \$1,400,000       \$1,400,000	000
7/1/15-16 \$1,400,000 \$1,400,000 \$1,400	000
	000
7/4/45 47 44 400 000 44 400	000
7/1/16-17 \$1,400,000 \$1,400,	000
7/1/17-18 \$1,400,000 \$1,400	000
7/1/18-19 \$1,400,000 \$1,400,000 \$1,400	000
7/1/19-20 \$1,400,000 \$1,400,000 \$1,400	000
7/1/20-21 \$3,000,000 \$764,984 \$2,165,	521

<sup>(</sup>C) and (D) - Exhibit 1-A

<sup>(</sup>E) and (F) - Excess amount from claims in Exhibit 1-B

<sup>(</sup>G) = (C) - (E)

<sup>(</sup>H) = (D) - (F)

Property including Auto Physical Damage

## Estimated Ultimate Losses Using Loss Development Methods

#### Limited to SIR

		Littite	eu to sik		
(A)	(B)	(C)	(D)	(E)	(F)
	Unlimited	Excess	Limited	Reported	Limited
Accident	Reported	on Large	Reported	Develop.	Ultimate
Period	Losses	Losses	Losses	Factor	Losses
7/1/11-12	\$4,018,489	\$735,946	\$3,282,543	1.000	\$3,284,000
7/1/12-13	\$6,136,455	\$3,103,780	\$3,032,675	1.001	\$3,035,000
7/1/13-14	\$4,590,290	\$2,084,113	\$2,506,177	1.001	\$2,509,000
7/1/14-15	\$7,768,693	\$4,048,002	\$3,720,690	1.002	\$3,730,000
7/1/15-16	\$14,849,611	\$11,124,849	\$3,724,762	1.005	\$3,744,000
7/1/16-17	\$11,283,333	\$6,584,134	\$4,699,199	1.011	\$4,749,000
7/1/17-18	\$22,481,686	\$17,289,529	\$5,192,157	1.023	\$5,311,000
7/1/18-19	\$32,890,372	\$28,328,362	\$4,562,010	1.050	\$4,792,000
7/1/19-20	\$76,536,545	\$67,807,285	\$8,729,260	1.114	\$9,722,000
7/1/20-21	\$5,948,187	\$2,165,521	\$3,782,666	2.426	\$9,178,000
Total	\$186,503,660	\$143,271,521	\$43,232,139		\$50,054,000

#### **Unlimited Losses**

	(6)	(11)	///
	(G)	(H) Unlimited	(1)
	Unlimited	Reported	Unlimited
Accident	Reported	Develop.	Ultimate
Period	Losses	Factor	Losses
7/1/11-12	\$4,018,489	1.000	\$4,020,000
7/1/12-13	\$6,136,455	1.001	\$6,140,000
7/1/13-14	\$4,590,290	1.002	\$4,598,000
7/1/14-15	\$7,768,693	1.004	\$7,800,000
7/1/15-16	\$14,849,611	1.010	\$15,002,000
7/1/16-17	\$11,283,333	1.027	\$11,583,000
7/1/17-18	\$22,481,686	1.069	\$24,033,000
7/1/18-19	\$32,890,372	1.181	\$38,849,000
7/1/19-20	\$76,536,545	1.480	\$113,289,000
7/1/20-21	\$5,948,187	3.435	\$20,433,000
Total	\$186,503,660		\$245,747,000

<sup>(</sup>B) and (G) - Exhibit 1-A

<sup>(</sup>C) - Exhibit 1-B

<sup>(</sup>D) = (B) - (C)

<sup>(</sup>E) and (H) = Appendix A

<sup>(</sup>F) = (D) \* (E)

<sup>(1) = (</sup>G) \* (H)

#### Estimated Ultimate Losses Using Bornhuetter-Ferguson Method

#### Limited to SIR

(A)	(B)	(C)	(D)	(E)	(F)	(G)
Accident Period	Prior Ultimate or Forecast	Reported Develop. Factor	Expected % Unreported	Expected Unreported Losses	Reported Losses	Estimated Ultimate Losses
7/1/11-12	\$3,282,543	1.000	0%	\$1,000	\$3,282,543	\$3,284,000
7/1/12-13	\$3,032,675	1.001	0%	\$2,000	\$3,032,675	\$3,035,000
7/1/13-14	\$2,510,352	1.001	0%	\$3,000	\$2,506,177	\$2,509,000
7/1/14-15	\$3,740,662	1.002	0%	\$9,000	\$3,720,690	\$3,730,000
7/1/15-16	\$3,744,000	1.005	1%	\$19,000	\$3,724,762	\$3,744,000
7/1/16-17	\$4,833,000	1.011	1%	\$51,000	\$4,699,199	\$4,750,000
7/1/17-18	\$5,310,000	1.023	2%	\$119,000	\$5,192,157	\$5,311,000
7/1/18-19	\$4,910,000	1.050	5%	\$235,000	\$4,562,010	\$4,797,000
7/1/19-20	\$9,350,000	1.114	10%	\$954,000	\$8,729,260	\$9,683,000
7/1/20-21	\$10,497,000	2.426	59%	\$6,171,000	\$3,782,666	\$9,954,000
Total	\$51,210,232			\$7,564,000	\$43,232,139	\$50,797,000

**Unlimited Losses** 

			Ommitted Losse	3		
	(H) Prior	(I) Reported	(1)	(K) Expected	(L)	(M) Estimated
Accident	Ultimate or	Develop.	Expected %	Unreported	Reported	Ultimate
Period	Forecast	Factor	Unreported	Losses	Losses	Losses
7/1/11-12	\$4,018,489	1.000	0%	\$1,000	\$4,018,489	\$4,019,000
7/1/12-13	\$6,136,455	1.001	0%	\$4,000	\$6,136,455	\$6,140,000
7/1/13-14	\$4,590,290	1.002	0%	\$7,000	\$4,590,290	\$4,597,000
7/1/14-15	\$7,787,000	1.004	0%	\$31,000	\$7,768,693	\$7,800,000
7/1/15-16	\$14,941,000	1.010	1%	\$152,000	\$14,849,611	\$15,002,000
7/1/16-17	\$11,474,000	1.027	3%	\$296,000	\$11,283,333	\$11,579,000
7/1/17-18	\$22,496,000	1.069	6%	\$1,452,000	\$22,481,686	\$23,934,000
7/1/18-19	\$32,439,000	1.181	15%	\$4,976,000	\$32,890,372	\$37,866,000
7/1/19-20	\$52,528,000	1.480	32%	\$17,041,000	\$76,536,545	\$93,578,000
7/1/20-21	\$30,111,000	3.435	71%	\$21,345,000	\$5,948,187	\$27,293,000
Total	\$186,521,233			\$45,305,000	\$186,503,660	\$231,808,000

<sup>(</sup>B) and (H) - Exhibit 3

<sup>(</sup>C) and (I) - Appendix A

<sup>(</sup>D) = 1 - 1/(C)

<sup>(</sup>E) = (B) \* (D)

<sup>(</sup>F) and (L) - Exhibit 1-C

<sup>(</sup>G)=(E)+(F)

<sup>(</sup>J) = 1 - 1/(1)

<sup>(</sup>K) = (H) \* (J)

<sup>(</sup>M) = (K) + (L)

#### Oklahoma Schools Insurance Group

Property including Auto Physical Damage

#### Summary and Selection of Ultimate Limited Loss Estimates

(A)	(B)	(C) Prior	(D) Loss	(E) Bornhuetter-	(F) Selected
Accident		Selection	Development	Ferguson	Ultimate
Period	SIR	or Forecast	Method	Method	Losses
imited to SIR					
7/1/11-12	\$250,000	\$3,282,543	\$3,284,000	\$3,284,000	\$3,282,543
7/1/12-13	\$250,000	\$3,032,675	\$3,035,000	\$3,035,000	\$3,032,675
7/1/13-14	\$250,000	\$2,510,352	\$2,509,000	\$2,509,000	\$2,506,177
7/1/14-15	\$250,000	\$3,740,662	\$3,730,000	\$3,730,000	\$3,730,000
7/1/15-16	\$250,000	\$3,744,000	\$3,744,000	\$3,744,000	\$3,744,000
7/1/16-17	\$250,000	\$4,833,000	\$4,749,000	\$4,750,000	\$4,749,000
7/1/17-18	\$250,000	\$5,310,000	\$5,311,000	\$5,311,000	\$5,311,000
7/1/18-19	\$250,000	\$4,910,000	\$4,792,000	\$4,797,000	\$4,792,000
7/1/19-20	\$250,000/\$500,000	\$9,350,000	\$9,722,000	\$9,683,000	\$9,722,000
7/1/20-21	\$250,000/\$750,000	\$10,497,000	\$9,178,000	\$9,954,000	\$10,497,000
Inlimited Losses					
7/1/11-12		\$4,018,489	\$4,020,000	\$4,019,000	\$4,018,489
7/1/12-13		\$6,136,455	\$6,140,000	\$6,140,000	\$6,136,455
7/1/13-14		\$4,590,290	\$4,598,000	\$4,597,000	\$4,590,290
7/1/14-15		\$7,787,000	\$7,800,000	\$7,800,000	\$7,800,000
7/1/15-16		\$14,941,000	\$15,002,000	\$15,002,000	\$15,002,000
7/1/16-17		\$11,474,000	\$11,583,000	\$11,579,000	\$11,583,000
7/1/17-18		\$22,496,000	\$24,033,000	\$23,934,000	\$24,033,000
7/1/18-19		\$32,439,000	\$38,849,000	\$37,866,000	\$38,849,000
7/1/19-20		\$52,528,000	\$113,289,000	\$93,578,000	\$103,434,000
7/1/20-21		\$30,111,000	\$20,433,000	\$27,293,000	\$30,111,000
		(G)	(H)		(1)
		Ultimate	Capped		Total
Accident		Excess of	Excess		Ultimate
Period	Corridor	SIR	Losses		Retained
	Corridor mited and Limited, Capp		Losses		Retaine
7/1/11-12	\$2,700,000	\$735,946	\$735,946		\$4,018,489
7/1/12-13	\$2,400,000	\$3,103,780	\$2,400,000		\$5,432,675
7/1/13-14	\$1,400,000	\$2,084,113	\$1,400,000		\$3,906,177
7/1/14-15	\$1,400,000	\$4,070,000	\$1,400,000		\$5,130,000
7/1/15-16	\$1,400,000	\$11,258,000	\$1,400,000		\$5,144,000
7/1/16-17	\$1,400,000	\$6,834,000	\$1,400,000		\$6,149,000
7/1/17-18	\$1,400,000	\$18,722,000	\$1,400,000		\$6,711,000
7/1/18-19	\$1,400,000	\$34,057,000	\$1,400,000		\$6,192,000
7/1/19-20	\$1,400,000	\$93,712,000	\$1,400,000		\$11,122,000
7/1/20-21	\$3,000,000	\$19,614,000	\$3,000,000		\$13,497,000

<sup>(</sup>C) - From previous report as of 6/30/2020

Limited to \$250,000:

Limited reported losses from 11-12 through 13-14

Column (D) for 14-15 through 19-20

Prior for 20-21

#### Unlimited Losses:

Limited reported losses from 11-12 through 13-14

Column (D) for 14-15 through 18-19

Average of (D) and (E) for 19-20

Prior for 20-21

(G) - Difference in Unlimited and Limited Losses

(H) =  $Minimum \ of \ (G) \ and \ Corridor \ Limit$ 

(I) = (F, Limited) + (H)

<sup>(</sup>D) - Exhibit 2-A

<sup>(</sup>E) - Exhibit 2-B

<sup>(</sup>F) - Selected as noted:

Property including Auto Physical Damage

#### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Prior	Expected	Actual		Prior	Current	
	Reported	Reported	Reported		Ultimate	Ultimate	
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	12/31/2020	12/31/2020	Difference	6/30/2020	12/31/2020	Difference
Limited to SIR							
7/1/11-12	\$3,282,543	\$3,282,543	\$3,282,543	0.0%	\$3,282,543	\$3,282,543	0.0%
7/1/12-13	\$3,032,675	\$3,032,675	\$3,032,675	0.0%	\$3,032,675	\$3,032,675	0.0%
7/1/13-14	\$2,506,177	\$2,506,177	\$2,506,177	0.0%	\$2,510,352	\$2,506,177	-0.2%
7/1/14-15	\$3,720,690	\$3,720,690	\$3,720,690	0.0%	\$3,740,662	\$3,730,000	-0.3%
7/1/15-16	\$3,724,762	\$3,732,711	\$3,724,762	-0.2%	\$3,744,000	\$3,744,000	0.0%
7/1/16-17	\$4,699,189	\$4,754,826	\$4,699,199	-1.2%	\$4,833,000	\$4,749,000	-1.7%
7/1/17-18	\$5,038,789	\$5,151,762	\$5,192,157	0.8%	\$5,310,000	\$5,311,000	0.0%
7/1/18-19	\$4,660,002	\$4,762,950	\$4,562,010	-4.2%	\$4,910,000	\$4,792,000	-2.4%
7/1/19-20	\$8,100,294	\$9,242,787	\$8,729,260	-5.6%	\$9,350,000	\$9,722,000	4.0%
7/1/20-21	YUJIJUJEJ4	\$4,311,381	\$3,782,666	-12.3%	\$10,497,000	\$10,497,000	0.0%
Total	\$38,765,120	\$44,498,500	\$43,232,139	-2.8%	\$51,210,232	\$51,366,394	0.3%
<u>Unlimited</u>							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$6,136,455	\$6,136,455	\$6,136,455	0.0%	\$6,136,455	\$6,136,455	0.0%
7/1/13-14	\$4,590,290	\$4,590,290	\$4,590,290	0.0%	\$4,590,290	\$4,590,290	0.0%
7/1/14-15	\$7,768,693	\$7,768,693	\$7,768,693	0.0%	\$7,787,000	\$7,800,000	0.2%
7/1/15-16	\$14,849,611	\$14,882,239	\$14,849,611	-0.2%	\$14,941,000	\$15,002,000	0.4%
7/1/16-17	\$11,283,323	\$11,357,082	\$11,283,333	-0.6%	\$11,474,000	\$11,583,000	0.9%
7/1/17-18	\$21,777,841	\$22,078,724	\$22,481,686	1.8%	\$22,496,000	\$24,033,000	6.8%
7/1/18-19	\$29,947,726	\$31,057,731	\$32,890,372	5.9%	\$32,439,000	\$38,849,000	19.8%
7/1/19-20	\$44,221,069	\$51,030,933	\$76,536,545	50.0%	\$52,528,000	###########	96.9%
7/1/20-21		\$8,898,941	\$5,948,187	-33.2%	\$30,111,000	\$30,111,000	0.0%
Total	**********	###########	**********	15.3%	############	###########	31.7%
SIR + Corridor							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$5,432,675	\$5,432,675	\$5,432,675	0.0%	\$5,432,675	\$5,432,675	0.0%
7/1/13-14	\$3,906,177	\$3,906,177	\$3,906,177	0.0%	\$3,910,352	\$3,906,177	-0.1%
7/1/14-15	\$5,120,690	\$5,120,690	\$5,120,690	0.0%	\$5,140,662	\$5,130,000	-0.2%
7/1/15-16	\$5,124,762	\$5,132,711	\$5,124,762	-0.2%	\$5,144,000	\$5,144,000	0.0%
7/1/16-17	\$6,099,189	\$6,154,826	\$6,099,199	-0.9%	\$6,233,000	\$6,149,000	-1.3%
7/1/17-18	\$6,438,789	\$6,551,762	\$6,592,157	0.6%	\$6,710,000	\$6,711,000	0.0%
7/1/18-19	\$6,060,002	\$6,162,950	\$5,962,010	-3.3%	\$6,310,000	\$6,192,000	-1.9%
7/1/19-20	\$9,500,294	\$10,642,787	\$10,129,260	-4.8%	\$10,750,000	\$11,122,000	3.5%
7/1/20-21		\$7,311,381	\$5,948,187	-18.6%	\$13,497,000	\$13,497,000	0.0%
Total	\$51,701,066	\$60,434,446	\$58,333,606	-3.5%	\$67,146,177	\$67,302,340	0.2%

<sup>(</sup>B) and (F) - From Previous actuarial report as of 6/30/2020

<sup>(</sup>C) - Derived from (B) and (F) using loss development patterns

<sup>(</sup>D) - Exhibit 1-C

<sup>(</sup>E) = [(D)/(C)] - 1

<sup>(</sup>G) - Exhibit 3

<sup>(</sup>H) = [(G)/(F)] - 1

Property including Auto Physical Damage

#### Comparison of Results with Previous Estimates as of 1/31/20

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Prior	Expected	Actual		Prior	Current	
	Reported	Reported	Reported		Ultimate	Ultimate	
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	1/31/2020	12/31/2020	12/31/2020	Difference	1/31/2020	12/31/2020	Difference
Limited to SIR							
7/1/11-12	\$3,282,543	\$3,282,543	\$3,282,543	0.0%	\$3,282,543	\$3,282,543	0.0%
7/1/12-13	\$3,032,675	\$3,032,675	\$3,032,675	0.0%	\$3,032,675	\$3,032,675	0.0%
7/1/13-14	\$2,505,352	\$2,505,352	\$2,506,177	0.0%	\$2,505,352	\$2,506,177	0.0%
7/1/14-15	\$3,470,662	\$3,470,662	\$3,720,690	7.2%	\$3,470,662	\$3,730,000	7.5%
7/1/15-16	\$3,682,092	\$3,689,527	\$3,724,762	1.0%	\$3,694,000	\$3,744,000	1.4%
7/1/16-17	\$4,664,189	\$4,691,663	\$4,699,199	0.2%	\$4,708,000	\$4,749,000	0.9%
7/1/17-18	\$4,726,369	\$4,810,160	\$5,192,157	7.9%	\$4,860,000	\$5,311,000	9.3%
7/1/18-19	\$4,664,196	\$4,939,991	\$4,562,010	-7.7%	\$5,110,000	\$4,792,000	-6.2%
7/1/19-20	\$3,684,286	\$8,178,277	\$8,729,260	6.7%	\$8,600,000	\$9,722,000	13.0%
Total	##########	\$38,600,849	\$39,449,474	2,2%	\$39,263,232	\$40,869,394	4.1%
Unlimited							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$6,136,455	\$6,136,455	\$6,136,455	0.0%	\$6,136,455	\$6,136,455	0.0%
7/1/13-14	\$4,590,290	\$4,590,290	\$4,590,290	0.0%	\$4,590,290	\$4,590,290	0.0%
7/1/14-15	\$7,618,301	\$7,618,301	\$7,768,693	2.0%	\$7,637,000	\$7,800,000	2.1%
7/1/15-16	##########	\$14,901,030	\$14,849,611	-0.3%	\$14,941,000	\$15,002,000	0.4%
7/1/16-17	##########	\$11,397,770	\$11,283,333	-1.0%	\$11,474,000	\$11,583,000	0.9%
7/1/17-18	#########	\$22,456,137	\$22,481,686	0.1%	\$22,871,000	\$24,033,000	5.1%
7/1/18-19	#########	\$24,190,545	\$32,890,372	36.0%	\$25,089,000	\$38,849,000	54.8%
7/1/19-20	\$5,454,215	\$22,402,189	\$76,536,545	241.6%	\$26,128,000	###############	295.9%
Total	#########	##########	###########	53.4%	***********	###########	75.3%
SIR + Corridor							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$5,432,675	\$5,432,675	\$5,432,675	0.0%	\$5,432,675	\$5,432,675	0.0%
7/1/13-14	\$3,905,352	\$3,905,352	\$3,906,177	0.0%	\$3,905,352	\$3,906,177	0.0%
7/1/14-15	\$4,870,662	\$4,870,662	\$5,120,690	5.1%	\$4,870,662	\$5,130,000	5.3%
7/1/15-16	\$5,082,092	\$5,089,527	\$5,124,762	0.7%	\$5,094,000	\$5,144,000	1.0%
7/1/16-17	\$6,064,189	\$6,091,663	\$6,099,199	0.1%	\$6,108,000	\$6,149,000	0.7%
7/1/17-18	\$6,126,369	\$6,210,160	\$6,592,157	6.2%	\$6,260,000	\$6,711,000	7.2%
7/1/18-19	\$6,064,196	\$6,339,991	\$5,962,010	-6.0%	\$6,510,000	\$6,192,000	-4.9%
7/1/19-20	\$5,084,286	\$9,578,277	\$10,129,260	5.8%	\$10,000,000	\$11,122,000	11.2%

<sup>(</sup>B) and (F) - From Previous actuarial report as of 1/31/2020

<sup>(</sup>C) - Derived from (B) and (F) using loss development patterns

<sup>(</sup>D) - Exhibit 1-C

<sup>(</sup>E) = [(D)/(C)] - 1

<sup>(</sup>G) - Exhibit 3

<sup>(</sup>H) = [(G)/(F)] - 1

### Estimated Outstanding Losses As of December 31, 2020

(A)	(B)	(C) Limited	(D) Limited	(E) Limited	(F) Limited	(G)	(H)
Accident		Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	SIR	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$100k/\$200k	\$312,045	\$312,045	\$312,045	\$0	\$0	\$0
7/1/03-04	\$100k/\$200k	\$1,287,169	\$1,287,169	\$1,287,169	\$0	\$0	\$0
7/1/04-05	\$100k/\$200k	\$1,266,993	\$1,266,993	\$1,266,993	\$0	\$0	\$0
7/1/05-06	\$100k/\$200k	\$2,616,997	\$2,616,997	\$2,616,997	\$0	\$0	\$0
7/1/06-07	\$100k/\$200k	\$2,604,514	\$2,604,514	\$2,604,514	\$0	\$0	\$0
7/1/07-08	\$100k/\$200k	\$3,915,481	\$3,915,481	\$3,915,481	\$0	\$0	\$0
7/1/08-09	\$100k/\$200k	\$4,560,396	\$4,560,396	\$4,560,396	\$0	\$0	\$0
7/1/09-10	\$100k/\$200k	\$4,870,041	\$4,870,041	\$4,870,041	\$0	\$0	\$0
7/1/10-11	\$100k/\$200k	\$3,569,472	\$3,569,472	\$3,569,472	\$0	\$0	\$0
7/1/11-12	\$250,000 /\$2.7M corridor	\$4,018,489	\$4,018,489	\$4,018,489	\$0	\$0	\$0
7/1/12-13	\$250,000 /\$2.4M corridor	\$5,432,675	\$5,432,675	\$5,432,675	\$0	\$0	\$0
7/1/13-14	\$250,000 /\$1.4M corridor	\$3,906,177	\$3,906,177	\$3,906,177	\$0	\$0	\$0
7/1/14-15	\$250,000 /\$1.4M corridor	\$5,130,000	\$4,865,662	\$5,120,690	\$255,028	\$9,000	\$264,000
7/1/15-16	\$250,000 /\$1.4M corridor	\$5,144,000	\$5,076,578	\$5,124,762	\$48,184	\$19,000	\$67,000
7/1/16-17	\$250,000 /\$1.4M corridor	\$6,149,000	\$6,014,163	\$6,099,199	\$85,036	\$50,000	\$135,000
7/1/17-18	\$250,000 /\$1.4M corridor	\$6,711,000	\$6,093,320	\$6,592,157	\$498,837	\$119,000	\$618,000
7/1/18-19	\$250,000 /\$1.4M corridor	\$6,192,000	\$5,873,877	\$5,962,010	\$88,134	\$230,000	\$318,000
7/1/19-20	\$250k/\$500k + \$1.4M corr.	\$11,122,000	\$9,193,620	\$10,129,260	\$935,640	\$993,000	\$1,928,000
7/1-12/31/20	\$250k/\$750k + \$3.0M corr.	\$8,249,000	\$3,024,866	\$5,948,187	\$2,923,321	\$2,301,000	\$5,224,000
Total		\$87,057,448	\$78,502,535	\$83,336,714	\$4,834,179	\$3,721,000	\$8,554,000
1000000		20000					

1/1-6/30/21 \$5,248,000

<sup>(</sup>C) - Ultimate losses are equal to limited reported losses in (E) through 10-11 Exhibit 3 for 11-12 to present

<sup>(</sup>D) and (E) - Exhibit 1-C

<sup>(</sup>F) = (E) - (D)

<sup>(</sup>G) = (C) - (E)

<sup>(</sup>H)=(C)-(D)

Property including Auto Physical Damage

#### Projection of Outstanding Losses As of June 30, 2021

(A)	(B)	(C)	(D) Projected	(E) Projected	(F) Projected	(G)	(H)
Accident		Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	SIR	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$100k/\$200k	\$312,045	\$312,045	\$312,045	\$0	\$0	\$0
7/1/03-04	\$100k/\$200k	\$1,287,169	\$1,287,169	\$1,287,169	\$0	\$0	\$0
7/1/04-05	\$100k/\$200k	\$1,266,993	\$1,266,993	\$1,266,993	\$0	\$0	\$0
7/1/05-06	\$100k/\$200k	\$2,616,997	\$2,616,997	\$2,616,997	\$0	\$0	\$0
7/1/06-07	\$100k/\$200k	\$2,604,514	\$2,604,514	\$2,604,514	\$0	\$0	\$0
7/1/07-08	\$100k/\$200k	\$3,915,481	\$3,915,481	\$3,915,481	\$0	\$0	\$0
7/1/08-09	\$100k/\$200k	\$4,560,396	\$4,560,396	\$4,560,396	\$0	\$0	\$0
7/1/09-10	\$100k/\$200k	\$4,870,041	\$4,870,041	\$4,870,041	\$0	\$0	\$0
7/1/10-11	\$100k/\$200k	\$3,569,472	\$3,569,472	\$3,569,472	\$0	\$0	\$0
7/1/11-12	\$250,000 /\$2.7M corridor	\$4,018,489	\$4,018,489	\$4,018,489	\$0	\$0	\$0
7/1/12-13	\$250,000 /\$2.4M corridor	\$5,432,675	\$5,432,675	\$5,432,675	\$0	\$0	\$0
7/1/13-14	\$250,000 /\$1.4M corridor	\$3,906,177	\$3,906,177	\$3,906,177	\$0	\$0	\$0
7/1/14-15	\$250,000 /\$1.4M corridor	\$5,130,000	\$4,896,525	\$5,123,459	\$226,933	\$7,000	\$233,000
7/1/15-16	\$250,000 /\$1.4M corridor	\$5,144,000	\$5,085,735	\$5,130,609	\$44,874	\$13,000	\$58,000
7/1/16-17	\$250,000 /\$1.4M corridor	\$6,149,000	\$6,036,025	\$6,114,644	\$78,618	\$34,000	\$113,000
7/1/17-18	\$250,000 /\$1.4M corridor	\$6,711,000	\$6,217,288	\$6,629,625	\$412,337	\$81,000	\$494,000
7/1/18-19	\$250,000 /\$1.4M corridor	\$6,192,000	\$5,957,184	\$6,035,057	\$77,872	\$157,000	\$235,000
7/1/19-20	\$250k/\$500k + \$1.4M corr.	\$11,122,000	\$9,904,947	\$10,440,299	\$535,352	\$682,000	\$1,217,000
7/1/20-21	\$250k/\$750k + \$3.0M corr.	\$13,497,000	\$8,476,138	\$11,606,954	\$3,130,816	\$1,890,000	\$5,021,000
Total		\$92,305,448	\$84,934,290	\$89,441,094	\$4,506,803	\$2,864,000	\$7,371,000

<sup>(</sup>C) - Ultimate losses are equal to limited reported losses in (E) through 10-11 Exhibit 3 for 11-12 to present

<sup>(</sup>D) and (E) - Projected using loss deveopment factors

<sup>(</sup>F) = (E) - (D)

<sup>(</sup>G) = (C) - (E)

<sup>(</sup>H) = (C) - (D)

Property including Auto Physical Damage

### **Average Ultimate Claim Sizes**

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
		Reported	Estimated	Estimated Ultimate	Average Ultimate	Exposure	
Accident	Reported	Claim	Ultimate	Limited	Limited	Total	Loss
Period	Occurrences	Development		Losses	Occurrence	Value in \$100s	Rate
7/1/02-03	24	1.000	24.0	\$312,045	\$13,000		
7/1/03-04	104	1.000	104.0	\$1,287,169	\$12,400		
7/1/04-05	122	1.000	122.0	\$1,266,993	\$10,400	\$37,566,889	\$0.034
7/1/05-06	190	1.000	190.0	\$2,616,997	\$13,800	\$50,583,768	\$0.052
7/1/06-07	232	1.000	232.0	\$2,604,514	\$11,200	\$63,964,027	\$0.041
7/1/07-08	255	1.000	255.0	\$3,915,481	\$15,400	\$70,532,585	\$0.056
7/1/08-09	211	1.000	211.0	\$4,560,396	\$21,600	\$74,780,448	\$0.061
7/1/09-10	266	1.000	266.0	\$4,870,041	\$18,300	\$78,018,968	\$0.062
7/1/10-11	225	1.000	225.0	\$3,569,472	\$15,900	\$82,140,365	\$0.043
7/1/11-12	173	1.000	173.0	\$4,018,489	\$23,200	\$75,216,040	\$0.053
7/1/12-13	163	1.000	163.0	\$5,432,675	\$33,300	\$67,433,533	\$0.081
7/1/13-14	157	1.000	157.0	\$3,906,177	\$24,900	\$72,841,534	\$0.054
7/1/14-15	208	1.000	208.0	\$5,130,000	\$24,700	\$82,912,577	\$0.062
7/1/15-16	182	1.000	182.0	\$5,144,000	\$28,300	\$83,651,052	\$0.061
7/1/16-17	228	1.000	228.0	\$6,149,000	\$27,000	\$95,166,463	\$0.065
7/1/17-18	194	1.000	194.0	\$6,711,000	\$34,600	\$91,897,115	\$0.073
7/1/18-19	217	1.000	217.0	\$6,192,000	\$28,500	\$120,498,610	\$0.051
7/1/19-20	231	1.000	231.0	\$11,122,000	\$48,100	\$157,176,298	\$0.071
7/1/20-21	111	2.167	240.5	\$13,497,000	\$56,100	\$164,261,745	\$0.082
Total	3493		3,622.5	\$92,305,448	\$25,500	\$1,468,642,017	\$6.285

<sup>(</sup>B) - Exhibit 1-A

<sup>(</sup>C) - Appendix A3

 $<sup>(</sup>D) = (B) \times (C)$ 

<sup>(</sup>E) = Exhibit 3

<sup>(</sup>F) = (E) / (D)

<sup>(</sup>G) - Exhibit 1-A, provided by OSIG

<sup>(</sup>H) = (E) / (G) \* 100

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## Estimation of Cumulative Reported Loss Development Factors Losses Limited to \$250,000 per Occurrence Using "The Method of Least Squares"

42.00		Tro	insformed V	alues for R	egression		Fitted Values		
Months of Maturity X	Cumulative Factors Υ*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y	
12	1.177	-5.8916	-1.7311	34.711	2.9968	10.1992	222	1.000	
24	1.069	-5.9243	-2.6675	35.097	7.1156	15.8031	210	1.000	
36	1.037	-5.9558	-3.3001	35.472	10.8910	19.6551	198	1.000	
48	1.015	-5.9865	-4.1964	35.838	17.6096	25.1214	186	1.000	
	1					7 7 - 1	174	1.000	
							162	1.000	
							150	1.000	
							138	1.000	
						31	126	1.000	
						4	114	1.000	
							102	1.001	
	Sum	-23.7582	-11.8952	141.1179	38.6130	70.7788	90	1.001	
Av	erage	-5.9395	-2.9738	35.2795	9.6533	17.6947	78	1.002	
							66	1.005	
							54	1.011	
							42	1.023	
				_		- 8	30	1.050	
N =	4						18	1.114	
A = B = C =	25.405	R^2 =	0.99505				6	2.426	

<sup>\* -</sup> Appendix A4, Page 1

Property including Auto Physical Damage

## **Estimation of Cumulative Reported Loss Development Factors Unlimited Reported Losses** Using "The Method of Least Squares"

		Tro	ansformed \	/alues for R	Transformed Values for Regression							
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y				
12	1.752	-7.1000	-0.2847	50.410	0.0810	2.0211	222	1.000				
24	1.252	-7.1099	-1.3798	50.550	1.9040	9.8105	210	1.000				
36	1.138	-7.1196	-1.9817	50.689	3.9271	14.1090	198	1.000				
48	1.054	-7.1293	-2.9271	50.827	8.5680	20.8683	186	1.000				
60	1.013	-7.1389	-4.3405	50.963	18.8399	30.9863	174	1.000				
						- T- 1	162	1.000				
	W 1						150	1.000				
							138	1.000				
						7 4	126	1.000				
							114	1.000				
							102	1.001				
	Sum	-35.5977	-10.9138	253.4403	33.3201	77.7951	90	1.002				
Av	erage	-7.1195	-2.1828	50.6881	6.6640	15.5590	78	1.004				
							66	1.010				
							54	1.027				
							42	1.069				
							30	1.181				
N =	5						18	1.480				
A =	2.957E+306					- 1	6	3.435				

<sup>1200</sup> 

<sup>\* -</sup> Appendix A4, page 2

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# Implied Payment Pattern for Limited Losses Using "The Method of Least Squares"

		Tro		Fitted Values				
Months of Maturity X	Cumulative Factors Y*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y
							114	1.010
	1						102	1.012
							90	1.015
	2.50						78	1.019
66	1.018	-4.1431	-3.9988	17.166	15.9902	16.5674	66	1.025
54	1.029	-3.9318	-3.5328	15.459	12.4808	13.8904	54	1.035
42	1.132	-3.6636	-2.0279	13.422	4.1125	7.4294	42	1.054
30	1.071	-3.2958	-2.6436	10.863	6.9885	8.7128	30	1.100
18	1.247	-2.7081	-1.3966	7.334	1.9506	3.7821	18	1.261
6	4.645	-1.0986	1.2933	1.207	1.6727	-1.4209	6	4.669
S	um	-18.8410	-12.3064	65.4495	43.1952	48.9613		
Ave	erage	-3.1402	-2.0511	10.9083	7.1992	8.1602		

N =	6		
A =	2.227E+01		
B =	1.641	R^2 =	0.943240
C =	-3		

<sup>\* -</sup> Limited Ultimate Losses / Limited Paid Losses

# Estimation of Cumulative Reported Claim Development Factors Using "The Method of Least Squares"

15-4		Tra	nsformed \	/alues for R	egression		Fitted Values		
Months of Maturity X	Cumulative Factors Υ*	X' LN(1/(X+C))	Y' LN(Y-1)	(X')^2	(Y')^2	X' x Y'	Х	Cumulative Factor Y	
12	1.000						222	1.000	
24	1.000						210	1.000	
	S. 1447						198	1.000	
	2 1						186	1.000	
							174	1.000	
							162	1.000	
							150	1.000	
		ľ					138	1.000	
							126	1.000	
							114	1.000	
							102	1.000	
	um	0.0000	0.0000	0.0000	0.0000	0.0000	90	1.000	
Ave	rage	0.0000	0.0000	0.0000	0.0000	0.0000	78	1.000	
							66	1.000	
							54	1.000	
							42	1.000	
							30	1.000	
N =	2						18	1.000	
A =							6	2.167	
B =		R^2 =							
C =									

<sup>\* -</sup> Appendix A6

#### Analysis of Reported Loss Development Pure Loss Limited to \$250,000 ALAE unlimited

			Limited R	eported Losse	s and ALAE as	of (months):				
Year	12	24	36	48	60	72	84	96	108	120
7/1/05-06						\$2,912,297	\$2,912,297	\$2,912,297	\$2,912,297	\$2,912,297
7/1/06-07					\$2,801,109	\$2,794,881	\$2,794,881	\$2,794,881	\$2,794,881	\$2,794,881
7/1/07-08				\$5,083,453	\$5,097,217	\$5,097,217	\$5,097,217	\$5,097,217	\$5,097,217	\$5,097,217
7/1/08-09			\$5,799,194	\$5,831,587	\$5,900,011	\$5,897,574	\$5,897,276	\$5,897,026	\$5,897,026	\$5,897,026
7/1/09-10		\$5,643,910	\$5,633,310	\$5,639,110	\$5,639,110	\$5,639,110	\$5,909,210	\$5,909,210	\$5,909,210	\$5,920,817
7/1/10-11	\$5,333,937	\$4,814,020	\$4,639,787	\$4,830,071	\$4,835,277	\$4,835,277	\$4,835,277	\$4,835,277	\$4,835,277	\$4,835,277
7/1/11-12	\$3,532,085	\$3,363,887	\$3,271,113	\$3,282,543	\$3,282,543	\$3,201,043	\$3,201,043	\$3,282,543	\$3,282,543	
7/1/12-13	\$3,149,150	\$2,937,773	\$3,011,624	\$3,042,344	\$2,629,175	\$2,629,175	\$3,032,675	\$3,032,675		
7/1/13-14	\$2,524,519	\$2,329,236	\$2,545,000	\$2,496,177	\$2,496,177	\$2,506,177	\$2,506,177			
7/1/14-15	\$3,537,706	\$3,700,538	\$3,491,903	\$3,488,282	\$3,758,178	\$3,720,690				
7/1/15-16	\$3,246,383	\$3,430,061	\$3,419,370	\$3,866,204	\$3,724,762					
7/1/16-17	\$3,957,883	\$4,366,030	\$4,534,634	\$4,699,189						
7/1/17-18	\$4,064,314	\$4,864,790	\$5,038,789							
7/1/18-19	\$5,241,163	\$4,660,002								
7/1/19-20	\$8,100,294									

				Age-to-A	ge Factors					
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult
7/1/05-06						1.000	1.000	1.000	1.000	
7/1/06-07					0.998	1.000	1.000	1.000	1.000	
7/1/07-08				1.003	1.000	1.000	1.000	1.000	1.000	
7/1/08-09			1.006	1.012	1.000	1.000	1.000	1.000	1.000	
7/1/09-10		0.998	1.001	1.000	1.000	1.048	1.000	1.000	1.002	
7/1/10-11	0.903	0.964	1.041	1.001	1.000	1.000	1.000	1.000	1.000	
7/1/11-12	0.952	0.972	1.003	1.000	0.975	1.000	1.025	1.000		
7/1/12-13	0.933	1.025	1.010	0.864	1.000	1.153	1.000			
7/1/13-14	0.923	1.093	0.981	1,000	1.004	1.000				
7/1/14-15	1.046	0.944	0.999	1.077	0.990					
7/1/15-16	1.057	0.997	1.131	0.963						
7/1/16-17	1.103	1.039	1.036							
7/1/17-18	1.197	1.036								
7/1/18-19	0.889									
Average	1.000	1.007	1.023	0.991	0.996	1.022	1.003	1.000	1.000	
Wtd. Average	0.997	1.004	1.023	0.995	0.997	1.019	1.002	1.000	1.000	
5 yr average	1.058	1.022	1.031	0.981	0.994	1.040	1.005	1.000	1.000	
OK Benchmark	1.083	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Prior	1.101	1.025	1.019	1.005	1.000	1.000	1.000	1.000	1.000	1.000
	12	24	36	48	60	72	84	96	108	120
Selected	1.101	1.031	1.022	1.010	1.005	1.000	1.000	1.000	1.000	1.000
Cumulative	1.177	1.069	1.037	1.015	1.005	1.000	1.000	1.000	1.000	1.000

#### Analysis of Unlimited Reported Loss Development Total Experience Net of Member Deductibles

			Unlimi	ted Reported	Losses and AL	AE as of (mon	ths):			
Year	12	24	36	48	60	72	84	96	108	120
7/1/05-06	\$3,110,731	\$3,128,836	\$3,224,284	\$3,224,400	\$3,224,400	\$3,224,400	\$3,224,400	\$3,224,400	\$3,224,400	\$3,224,400
7/1/06-07	\$6,628,583	\$8,027,416	\$7,594,525	\$7,688,597	\$7,676,617	\$7,672,924	\$7,672,924	\$7,672,924	\$7,672,924	\$7,672,924
7/1/07-08	\$29,183,950	\$32,191,764	\$27,838,808	\$27,549,083	\$27,549,083	\$27,549,083	\$27,549,083	\$27,549,083	\$27,549,083	\$27,549,083
7/1/08-09	\$14,390,753	\$15,321,794	\$14,550,076	\$14,727,379	\$14,787,721	\$14,785,284	\$14,784,986	\$14,784,736	\$14,784,661	\$14,784,611
7/1/09-10	\$13,583,620	\$18,081,798	\$17,074,377	\$17,109,070	\$17,109,070	\$17,109,070	\$17,429,170	\$17,390,777	\$17,390,777	\$17,390,777
7/1/10-11	\$18,938,242	\$29,188,873	\$27,961,920	\$26,296,810	\$26,471,942	\$26,471,942	\$26,471,942	\$26,471,942	\$26,471,942	\$26,471,942
7/1/11-12	\$4,269,177	\$4,298,833	\$4,007,059	\$4,018,489	\$4,018,489	\$4,018,489	\$4,018,489	\$4,018,489	\$4,018,489	
7/1/12-13	\$5,180,489	\$6,310,374	\$6,225,528	\$6,146,124	\$6,136,455	\$6,136,455	\$6,136,455	\$6,136,455		
7/1/13-14	\$2,684,519	\$3,549,504	\$4,629,938	\$4,590,290	\$4,590,290	\$4,590,290	\$4,590,290			
7/1/14-15	\$4,080,491	\$4,423,676	\$4,662,017	\$5,663,301	\$6,503,301	\$7,768,693				
7/1/15-16	\$3,782,538	\$5,700,632	\$5,459,248	\$10,487,332	\$14,849,611					
7/1/16-17	\$8,750,280	\$11,383,917	\$10,178,642	\$11,283,323						
7/1/17-18	\$10,242,898	\$16,267,082	\$21,777,841							
7/1/18-19	\$11,601,006	\$29,947,726								
7/1/19-20	\$44,221,069									

				Age-t	o-Age Factors					
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:
7/1/05-06	1.006	1.031	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/06-07	1.211	0.946	1.012	0.998	1.000	1.000	1.000	1.000	1.000	
7/1/07-08	1.103	0.865	0.990	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/08-09	1.065	0.950	1.012	1.004	1.000	1.000	1.000	1.000	1.000	
7/1/09-10	1.331	0.944	1.002	1,000	1.000	1.019	0.998	1.000	1.000	
7/1/10-11	1.541	0.958	0.940	1.007	1.000	1.000	1.000	1.000	1.000	
7/1/11-12	1.007	0.932	1.003	1.000	1.000	1.000	1.000	1.000		
7/1/12-13	1.218	0.987	0.987	0.998	1.000	1.000	1.000			
7/1/13-14	1.322	1.304	0.991	1.000	1.000	1.000				
7/1/14-15	1.084	1.054	1.215	1.148	1.195					
7/1/15-16	1.507	0.958	1.921	1.416						
7/1/16-17	1.301	0.894	1.109							
7/1/17-18	1.588	1.339								
7/1/18-19	2.581									
lverage	1.348	1.012	1.099	1.052	1.019	1.002	1.000	1.000	1.000	
Vtd. Average	1.377	0.983	1.040	1.042	1.011	1.003	1.000	1.000	1.000	
yr average	1.612	1.110	1.245	1.113	1.039	1.004	1.000	1.000	1.000	
K Benchmark	1.300	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.00
rior	1.361	1.050	1.030	1.010	1.000	1.000	1.000	1.000	1.000	1.00
	12	24	36	48	60	72	84	96	108	120
elected	1.400	1.100	1.080	1.040	1.010	1.003	1.000	1.000	1.000	1.00
umulative	1.752	1.252	1.138	1.054	1.013	1.003	1.000	1.000	1.000	1.00

#### **Analysis of Report Occurrences**

			Report	ted Occurrent	es as of (mor	nths):				
Year	12	24	36	48	60	72	84	96	108	120
7/1/05-06		194	182	191	191	191	191	190	190	190
7/1/06-07	260	237	241	237	236	236	232	232	232	232
7/1/07-08	232	260	260	263	264	255	255	255	255	255
7/1/08-09	231	213	216	218	211	211	211	211	211	211
7/1/09-10	256	269	271	265	265	265	266	266	266	266
7/1/10-11	232	230	223	224	225	225	225	225	225	225
7/1/11-12	172	173	173	173	173	173	173	173	173	
7/1/12-13	167	161	161	162	162	163	163	163		
7/1/13-14	150	157	158	157	157	157	157			
7/1/14-15	218	207	205	206	208	208				
7/1/15-16	179	180	180	182	182					
7/1/16-17	231	230	229	228						
7/1/17-18	185	194	195							
7/1/18-19	219	216								
7/1/19-20	232									

	Age-to-Age Factors										
Year	12:24	24:36	36:48	48:60	60:72	72:84	84:96	96:108	108:120	120:ult	
7/1/05-06		0.938	1.049	1.000	1.000	1.000	0.995	1.000	1.000		
7/1/06-07	0.912	1.017	0.983	0.996	1.000	0.983	1.000	1.000	1.000		
7/1/07-08	1.121	1.000	1.012	1.004	0.966	1.000	1.000	1.000	1.000		
7/1/08-09	0.922	1.014	1.009	0.968	1.000	1.000	1.000	1.000	1.000		
7/1/09-10	1.051	1.007	0.978	1.000	1.000	1.004	1.000	1.000	1.000		
7/1/10-11	0.991	0.970	1.004	1.004	1.000	1.000	1.000	1.000	1.000		
7/1/11-12	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
7/1/12-13	0,964	1.000	1.006	1.000	1.006	1.000	1.000				
7/1/13-14	1.047	1.006	0.994	1.000	1.000	1.000					
7/1/14-15	0.950	0.990	1.005	1.010	1.000						
7/1/15-16	1.006	1.000	1.011	1.000							
7/1/16-17	0.996	0.996	0.996								
7/1/17-18	1.049	1.005									
7/1/18-19	0.986										
Average	1.000	0.996	1.004	0.998	0.997	0.999	0.999	1.000	1.000	_	
Wtd. Average	0.998	0.996	1.003	0.998	0.996	0.998	0.999	1.000	1.000		
5 yr average	0.997	1.000	1.002	1.002	1.001	1.001	1.000	1.000	1.000		
OK benchmark	1.200	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Prior	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	12	24	36	48	60	72	84	96	108	120	
Selected	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Cumulative	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	



October 5, 2021

Ms. Jennifer McKenzie Oklahoma Schools Insurance Group Arthur J. Gallagher Risk Management Services, Inc. 1300 S. Main Tulsa, OK 74119

RE: OSIG Actuarial Review as of 6/30/2021

Dear Jennifer,

The purpose of this review is to provide Oklahoma Schools Insurance Group (OSIG) with an update of the ultimate and outstanding losses, including an updated estimate of IBNR, as of June 30, 2021, based on the actual loss data as of June 30, 2021, and to revise the forecast ultimate losses for 7/1/21-22 based on the exposures written on July 1, 2021. I have compared the current data to the data used in the prior actuarial report as of December 31, 2020. For those accident periods where actual losses deviated from expected losses by a significant amount, the ultimate losses for those periods were increased or decreased accordingly. Since IBNR is calculated as the difference in the ultimate losses and the limited reported losses, the level of IBNR may fluctuate although ultimate losses may be relatively stable, or vice versa. Changes in ultimate losses generally track the changes in reported and paid losses compared to expectations. The overall change in ultimate losses is summarized below.

Change in Selected Ultimate Losses for years 02/03 through 20/21 Compared to Report as of 12/31/20					
Automobile Liability	-\$190,000				
General Liability with E&O	-\$685,000				
Property including APD	-\$466,000				
Total	-\$1,341,000				

Discussion of experience by line of business follows, including a reconciliation of the reserves as of June 30, 2021, to the preliminary estimate provided in the previous actuarial report.

#### **Automobile Liability**

The COVID-19 pandemic has led to reduced claim frequency for the 19-20 and 20/21 year and we have reduced the ultimate losses on these years by a total of \$200,000 since the preliminary report as of 12/13/2020. There was some adverse development on the 18/19 year, and we increased ultimate losses by this year by \$50,000. Smaller reductions were made to the 16-17 and 17-18 years. The net change to the ultimate losses since the 12/31/20 report is a reduction of \$190,000. The outstanding losses for automobile liability as of June 30, 2021, are estimated to be \$2,059,000 including \$1,639,000 in case reserves and \$420,000 in IBNR.

#### **General Liability**

Since the previous actuarial report as of 12/31/2020, reported losses have developed about \$756,000 less than expected. As a result, we have reduced the ultimate losses for each year from 15-16 through 20-21 by varying amounts totaling \$685,000. The outstanding losses for general liability as of June 30, 2021, are estimated to be \$6,256,000, including \$4,633,000 in case reserves and \$1,623,000 in IBNR.

The total reserve for the liability program is \$8,315,000, including \$6,272,000 in case reserves and \$2,043,000 in IBNR. There is a 25% probability that the IBNR reserves could exceed the 75<sup>th</sup> percentile estimate of \$2,819,000, and a 10% probability that they could exceed the 90<sup>th</sup> percentile estimate of \$3,711,000.

The table below shows the reconciliation of the projected reserves as of June 30, 2021, based on the prior report as of 12/31/20, compared to the actual year end reserves. Although the ultimate losses were decreased by \$875,000, the ending reserve requirement has increased from \$8,069,000 to \$8,315,000. This is because actual claim payments from 1/1-6/30/2021 were \$1,121,000 less than expected.

OSIG Liability Program Reconciliation to Prior Report	Actual as of 6/30/21	From Prior Report as of 12/31/20
Beginning Reserve as of 12/31/2020	\$8,655,000	\$8,655,000
Ultimate Losses Incurred 1/1-6/30/2021	\$1,826,000	\$1,826,000
Payments During 1/1-6/30/2021	-\$1,291,000	-\$2,412,000
Change in Ultimate Losses	-\$875,000	\$0
Ending Reserve as of 6/30/2021	\$8,315,000	\$8,069,000



#### Property/Auto Physical Damage

On an unlimited basis, reported losses have increased 14.8% or about \$31.1 million since the previous actuarial study as of 12/31/2020. Within OSIG's retained layers the development was actually less than expected overall, although there was some adverse development on individual years. Policy years 13-14 and prior are all closed. We increased the ultimate losses for the SIR layer for years 16-17 and 18-19, but reduced them for years 14-15, 15-16, 17-18 and 19-20. The corridor has been exhausted for all periods. The total outstanding losses for property and auto physical damage are \$8,190,000 including \$5,714,000 in case reserves and \$2,476,000 in IBNR reserves. There is a 25% probability that the IBNR reserve need is \$4,148,000, and a 10% probability that the IBNR is \$5,916,000.

The table below shows that the actual reserve need as of June 30, 2021, is \$819,000 more than projected in the December study. Ultimate loses were decreased by \$466,000. Claim payments were \$1,285,000 less than expected.

OSIG Property/APD Program Reconciliation to Prior Report	Actual as of 6/30/21	From Prior Report as of 12/31/20
Beginning Reserve as of 12/31/2020	\$8,554,000	\$8,554,000
Ultimate Losses Incurred 1/1-6/30/2021	\$5,248,000	\$5,248,000
Payments During 1/1-6/30/2021	-\$5,146,000	-\$6,431,000
Change in Ultimate Losses	-\$466,000	\$0
Ending Reserve as of 6/30/2021	\$8,190,000	\$7,371,000

#### Forecast Losses for 7/1/21-22

We adjusted the forecast losses for 7/1/21-22 for the change in the amount of exposures to be written as of July 1, 2021. We applied the selected loss rates from the 12/31/20 actuarial report to the updated exposure estimates to derive the ultimate losses for the 7/1/21-22 year. Due to the ongoing pandemic the uncertainty in the forecast estimates is increased.



The liability forecast is for losses within OSIG's \$100,000 self-insured retention.

	or OSIG's Liability Program for 7/1/2 nited to \$100,000 per occurrence	1-22
	Ultimate Losses	Loss Rate
Automobile Liability	\$1,571,000	\$114 per vehicle
General Liability	\$2,371,000	\$4.99 per studen
Total Forecast	\$3.942,000	\$8.30 per student

The property program has changed for 7/1/21-22. OSIG will retain a \$25,000 maintenance deductible for each claim and then retains a \$25 million aggregate layer. Once the aggregate is exhausted, OSIG will have a trailing deductible of \$100,000 per occurrence. Certain APD claims will be retained by OSIG in their entirety. OSIG's losses will offset by the member deductibles. About five members are not participating in the property program but have purchased primary APD coverage with limits of \$100,000.

Forecast Losses for OSIG's Pro	perty Program for 7/1/	21-22
	Ultimate Losses	Loss Rate
Primary APD only (5 members)	\$83,000	\$90.26 per vehicle
Property/APD \$25million Aggregate + \$25,000 maintenance deductible and \$100,000 trailing deductible Net of Member Deductibles	\$28,510,000	\$0.144 per \$100 TIV
Property/APD Estimated Member Deductibles	\$1,917,000	\$0.010 per \$100 TIV

#### **Description of attached Tables and Exhibits**

Table A summarizes the ultimate and outstanding losses by policy year. The outstanding losses are broken down between case reserves and IBNR. Table B shows the percentile estimates of the IBNR reserve and total reserve. Table C shows the comparison of experience between



12/31/2020 and 6/30/2021. Table D summarizes the forecast losses and Table E displays the percentile estimates for losses with various layers of insurance.

We have also included Exhibits 4 and 5 for automobile liability and general liability to show the changes in these individual coverages and the resulting IBNR and outstanding losses.

It has been a pleasure working with you on this year-end review. If you have any questions, please do not hesitate to call me. We also can answer questions from your auditors as they arise.

Sincerely,

Digitally signed by Laura Saura J. Sprouse, FCAS, MAAA Date: 2021-10-05 11:10:

Laura T. Sprouse, FCAS, MAAA

(615)620-7584

laura.sprouse@selectactuarial.com



# **Oklahoma Schools Insurance Group**

Automobile and General Liability

# Ultimate and Outstanding Losses As of June 30, 2021

(A)	(B)	(C) Projected	(D) Projected	(E) Projected	(F)	(G)
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$233,996	\$233,996	\$233,996	\$0	\$0	\$0
7/1/03-04	\$1,197,571	\$1,197,571	\$1,197,571	\$0	\$0	\$0
7/1/04-05	\$1,107,309	\$1,107,309	\$1,107,309	\$0	\$0	\$0
7/1/05-06	\$1,704,377	\$1,704,377	\$1,704,377	\$0	\$0	\$0
7/1/06-07	\$1,488,442	\$1,488,442	\$1,488,442	\$0	\$0	\$0
7/1/07-08	\$2,192,521	\$2,192,521	\$2,192,521	\$0	\$0	\$0
7/1/08-09	\$2,582,887	\$2,582,887	\$2,582,887	\$0	\$0	\$0
7/1/09-10	\$1,975,261	\$1,975,261	\$1,975,261	\$0	\$0	\$0
7/1/10-11	\$2,691,333	\$2,664,885	\$2,664,885	\$0	\$26,000	\$26,000
7/1/11-12	\$2,408,511	\$2,408,325	\$2,408,325	\$0	\$0	\$0
7/1/12-13	\$1,404,317	\$1,368,588	\$1,403,664	\$35,076	\$1,000	\$36,000
7/1/13-14	\$1,506,842	\$1,474,535	\$1,506,686	\$32,151	\$0	\$32,000
7/1/14-15	\$2,759,000	\$2,605,522	\$2,750,503	\$144,981	\$8,000	\$153,000
7/1/15-16	\$2,795,000	\$2,668,335	\$2,764,518	\$96,183	\$31,000	\$127,000
7/1/16-17	\$3,703,000	\$2,861,837	\$3,643,567	\$781,730	\$60,000	\$841,000
7/1/17-18	\$2,389,000	\$1,645,721	\$2,307,564	\$661,843	\$81,000	\$743,000
7/1/18-19	\$3,181,000	\$1,535,735	\$2,965,419	\$1,429,684	\$216,000	\$1,645,000
7/1/19-20	\$3,180,000	\$1,311,636	\$2,644,625	\$1,332,989	\$535,000	\$1,869,000
7/1/20-21	\$3,503,000	\$660,582	\$2,417,841	\$1,757,258	\$1,085,000	\$2,843,000
Total	\$42,003,000	\$33,688,066	\$39,959,961	\$6,271,895	\$2,043,000	\$8,315,000

<sup>(</sup>B) through (D) - Exhibit 5-B, sum of AL and GL losses within OSIG Retention

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)

# Oklahoma Schools Insurance Group

Automobile and General Liability

# Percentile Distribution of IBNR For Liability Coverages As of June 30, 2021

percentile	Ultimate Losses	IBNR Reserve	Total Reserve
Expected	\$42,003,000	\$2,043,000	\$8,315,000
40%	\$41,502,000	\$1,542,000	\$7,814,000
50%	\$41,838,000	\$1,878,000	\$8,150,000
60%	\$42,190,000	\$2,230,000	\$8,502,000
70%	\$42,568,000	\$2,608,000	\$8,880,000
75%	\$42,779,000	\$2,819,000	\$9,091,000
80%	\$43,037,000	\$3,077,000	\$9,349,000
90%	\$43,671,000	\$3,711,000	\$9,983,000
95%	\$44,294,000	\$4,334,000	\$10,606,000

Total Expected Ultimate Losses	\$42,003,000
Total Paid Losses as of 6/30/21	\$33,688,066
Total Case Reserves as of 6/30/21	\$6,271,895
Total IBNR Reserves as of 6/30/21	\$2,043,000
Total Outstanding Losses as of 6/30/21	\$8,315,000

<sup>-</sup> Based on a Monte Carlo simulation of 10,000 sample outcomes AL and GL losses modeled by accident year using a lognormal distribution Losses are limited to program aggregate limits each year.

#### Comparison of Results with Previous Estimates as of 12/31/21

(A)	(B) Actual Reported	(C) Projected Reported	(D) Actual Reported	(E)	(F) Actual Paid	(G) Projected Paid	(H) Actual Paid	(1)	(J) Expected Ultimate	(K) Actual Ultimate	(L)	(M)
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Year-end	Percent
Period	12/31/2021	6/30/2021	6/30/2021	Difference	12/31/2021	6/30/2021	6/30/2021	Difference	12/31/2021	6/30/2021	Adjustment	Difference
7/1/02-03	\$233,996	\$233,996	\$233,996	0.0%	\$233,996	\$233,996	\$233,996	0.0%	\$233,996	\$233,996	\$0	0.0%
7/1/03-04	\$1,197,571	\$1,197,571	\$1,197,571	0.0%	\$1,197,571	\$1,197,571	\$1,197,571	0.0%	\$1,197,571	\$1,197,571	\$0	0.0%
7/1/04-05	\$1,107,309	\$1,107,309	\$1,107,309	0.0%	\$1,107,309	\$1,107,309	\$1,107,309	0.0%	\$1,107,309	\$1,107,309	\$0	0.0%
7/1/05-06	\$1,704,377	\$1,704,377	\$1,704,377	0.0%	\$1,704,377	\$1,704,377	\$1,704,377	0.0%	\$1,704,377	\$1,704,377	\$0	0.0%
7/1/06-07	\$1,488,442	\$1,488,442	\$1,488,442	0.0%	\$1,488,442	\$1,488,442	\$1,488,442	0.0%	\$1,488,442	\$1,488,442	\$0	0.0%
7/1/07-08	\$2,192,521	\$2,192,521	\$2,192,521	0.0%	\$2,192,521	\$2,192,521	\$2,192,521	0.0%	\$2,192,521	\$2,192,521	\$0	0.0%
7/1/08-09	\$2,582,887	\$2,582,887	\$2,582,887	0.0%	\$2,582,887	\$2,582,887	\$2,582,887	0.0%	\$2,582,887	\$2,582,887	\$0	0.0%
7/1/09-10	\$1,975,261	\$1,975,261	\$1,975,261	0.0%	\$1,975,261	\$1,975,261	\$1,975,261	0.0%	\$1,975,261	\$1,975,261	\$0	0.0%
7/1/10-11	\$2,681,419	\$2,684,733	\$2,664,885	-0.7%	\$2,664,567	\$2,672,370	\$2,664,885	-0.3%	\$2,691,333	\$2,691,333	\$0	0.0%
7/1/11-12	\$2,408,325	\$2,408,388	\$2,408,325	0.0%	\$2,408,325	\$2,408,382	\$2,408,325	0.0%	\$2,408,511	\$2,408,511	\$0	0.0%
7/1/12-13	\$1,403,664	\$1,403,889	\$1,403,664	0.0%	\$1,368,315	\$1,379,933	\$1,368,588	-0.8%	\$1,404,317	\$1,404,317	\$0	0.0%
7/1/13-14	\$1,506,686	\$1,506,740	\$1,506,686	0.0%	\$1,473,650	\$1,484,947	\$1,474,535	-0.7%	\$1,506,842	\$1,506,842	\$0	0.0%
7/1/14-15	\$2,751,026	\$2,753,580	\$2,750,503	-0.1%	\$2,585,901	\$2,642,029	\$2,605,522	-1.4%	\$2,759,000	\$2,759,000	\$0	0.0%
7/1/15-16	\$2,800,334	\$2,806,967	\$2,764,518	-1.5%	\$2,662,863	\$2,715,709	\$2,668,335	-1.7%	\$2,820,000	\$2,795,000	-\$25,000	-0.9%
7/1/16-17	\$3,716,637	\$4,962,279	\$3,643,567	-26.6%	\$2,748,389	\$3,130,596	\$2,861,837	-8.6%	\$3,778,000	\$3,703,000	-\$75,000	-2.0%
7/1/17-18	\$2,415,505	\$2,496,792	\$2,307,564	-7.6%	\$1,420,619	\$1,851,677	\$1,645,721	-11.1%	\$2,639,000	\$2,389,000	-\$250,000	-9.5%
7/1/18-19	\$2,949,471	\$3,074,282	\$2,965,419	-3.5%	\$1,345,739	\$1,903,265	\$1,535,735	-19.3%	\$3,281,000	\$3,181,000	-\$100,000	-3.0%
7/1/19-20	\$2,782,097	\$3,039,017	\$2,644,625	-13.0%	\$1,030,060	\$1,457,492	\$1,311,636	-10.0%	\$3,455,000	\$3,180,000	-\$275,000	-8.0%
7/1/20-21	\$1,271,780	\$2,609,555	\$2,417,841	-7.3%	\$207,024	\$726,675	\$660,582	-9.1%	\$3,653,000	\$3,503,000	-\$150,000	-4.1%
Total	\$39,169,307	\$42,228,585	\$39,959,961	-5.4%	\$32,397,815	\$34,855,439	\$33,688,066	-3.3%	\$42,878,000	\$42,003,000	-\$875,000	-2.0%

Difference in Actual and Expected Losses -\$2,268,624

(B), (F) and (J) - From Previous actuarial report as of 12/31/2021

(B), (F) and (J) - From Previous actuarial report as of 12/31/202: (C) and (G) - Based on information available as of 12/31/2021 (D) and (H) - Exhibit 1-C (E) = [(D) / (C)] - 1 (I) = [(H) / (G)] - 1 (K) = (J) + (L) (L) = judgmentally selected (M) = [(K) / (J)] - 1

OSIG 2102 Reserve Tables Select Actuarial Services

#### Comparison of Results with Previous Estimates as of 06/30/20

(A)	(B) Actual Reported	(C) Projected Reported	(D) Actual Reported	(E)	(I) Actual Paid	(J) Projected Poid	(K) Actual Paid	(L)	(F) Expected Ultimate	(F) Actual Ultimate	(H)
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	6/30/2021	6/30/2021	Difference	6/30/2020	6/30/2021	6/30/2021	Difference	6/30/2020	6/30/2021	Difference
7/1/02-03	\$233,996	\$233,996	\$233,996	0.0%	\$233,996	\$233,996	\$233,996	0.0%	\$233,996	\$233,996	0.0%
7/1/03-04	\$1,197,571	\$1,197,571	\$1,197,571	0.0%	\$1,197,571	\$1,197,571	\$1,197,571	0.0%	\$1,197,571	\$1,197,571	0.0%
7/1/04-05	\$1,107,309	\$1,107,309	\$1,107,309	0.0%	\$1,107,309	\$1,107,309	\$1,107,309	0.0%	\$1,107,309	\$1,107,309	0.0%
7/1/05-06	\$1,704,377	\$1,704,377	\$1,704,377	0.0%	\$1,704,377	\$1,704,377	\$1,704,377	0.0%	\$1,704,377	\$1,704,377	0.0%
7/1/06-07	\$1,488,442	\$1,488,442	\$1,488,442	0.0%	\$1,488,442	\$1,488,442	\$1,488,442	0.0%	\$1,488,442	\$1,488,442	0.0%
7/1/07-08	\$2,192,521	\$2,192,521	\$2,192,521	0.0%	\$2,192,521	\$2,192,521	\$2,192,521	0.0%	\$2,192,521	\$2,192,521	0.0%
7/1/08-09	\$2,582,887	\$2,582,887	\$2,582,887	0.0%	\$2,582,887	\$2,582,887	\$2,582,887	0.0%	\$2,582,887	\$2,582,887	0.0%
7/1/09-10	\$1,975,261	\$1,975,261	\$1,975,261	0.0%	\$1,975,261	\$1,975,261	\$1,975,261	0.0%	\$1,975,261	\$1,975,261	0.0%
7/1/10-11	\$2,681,419	\$2,681,927	\$2,664,885	-0.6%	\$2,663,590	\$2,672,493	\$2,664,885	-0.3%	\$2,682,333	\$2,691,333	0.3%
7/1/11-12	\$2,408,325	\$2,408,990	\$2,408,325	0.0%	\$2,408,325	\$2,408,915	\$2,408,325	0.0%	\$2,409,511	\$2,408,511	0.0%
7/1/12-13	\$1,403,664	\$1,419,828	\$1,403,664	-1.1%	\$1,368,315	\$1,401,719	\$1,368,588	-2.4%	\$1,432,317	\$1,404,317	-2.0%
7/1/13-14	\$1,506,686	\$1,508,477	\$1,506,686	-0.1%	\$1,472,888	\$1,493,136	\$1,474,535	-1.2%	\$1,509,842	\$1,506,842	-0.2%
7/1/14-15	\$2,796,598	\$2,807,870	\$2,750,503	-2.0%	\$2,573,301	\$2,725,230	\$2,605,522	-4,4%	\$2,816,000	\$2,759,000	-2.0%
7/1/15-16	\$2,883,164	\$2,919,682	\$2,764,518	-5.3%	\$2,628,083	\$2,824,438	\$2,668,335	-5.5%	\$2,946,000	\$2,795,000	-5.1%
7/1/16-17	\$3,654,251	\$3,787,000	\$3,643,567	-3.8%	\$2,653,988	\$3,356,277	\$2,861,837	-14.7%	\$3,787,000	\$3,703,000	-2.2%
7/1/17-18	\$2,554,653	\$2,670,694	\$2,307,564	-13.6%	\$1,170,471	\$2,113,116	\$1,645,721	-22.1%	\$2,755,000	\$2,389,000	-13.3%
7/1/18-19	\$2,662,205	\$2,929,322	\$2,965,419	1,2%	\$985,597	\$2,032,035	\$1,535,735	-24.4%	\$3,141,000	\$3,181,000	1.3%
7/1/19-20	\$2,495,717	\$2,811,942	\$2,644,625	-6.0%	\$764,831	\$1,565,847	\$1,311,636	-16.2%	\$3,284,000	\$3,180,000	-3.2%
7/1/20-21	CONTRACTO	\$3,016,241	\$2,417,841	-19.8%		\$926,979	\$660,582	-28.7%	\$4,017,000	\$3,503,000	-12.8%
Total	\$37,529,045	\$41,444,336	\$39,959,961	-3.6%	\$31,171,753	\$36,002,547	\$33,688,066	-6.4%	\$43,262,000	\$42,003,000	-2.9%

Difference in Actual and Expected Losses -\$1,484,375

Change in Ultimates -\$1,259,000

<sup>(</sup>B), (F), (I) and (M) - From Previous actuarial report as of 6/30/2020
(C) and (J) - Based on information available as of 6/30/2020
(D) and (K) - Exhibit 1-C
(E) = [(D) / (C)] - 1
(G) and (N) - Exhibit 3
(H) = [(G) / (F)] - 1
(L) = [(K) / (J)] - 1
(O) = [(N) / (M)] - 1

Automobile and General Liability (including E&O)

# Forecast Ultimate Losses for 7/1/21-22

	Autmobile Liability	General Liability	Total
Forecast Ultimate Losses	\$1,571,000	\$2,371,000	\$3,942,000
Exposure*	13,835	475,124	475,124
Cost per exposure	\$114	\$4.99	\$8.30
Per Occurrence Retention	\$100,000	\$100,000	
Forecast Claim Counts	237.0	113.9	350.9
Average Claim Size	\$6,600	\$20,800	\$11,200
Total Claims over \$100,000	2.8	7.9	10.8

<sup>\*</sup> Exposures are Vehicle for AL and Student Count for GL

Automobile and General Liability (including E&O)

# Distribution of Forecast Losses for 7/1/21-22 Assuming a \$100,000 SIR

Percentile	SIR Layer \$100,000	Layer \$900,000 xs \$100,000	Losses Limited to \$1,000,000	Losses Excess of \$1,000,000	Total Incurred Losses
20.0%	\$3,355,000	\$646,000	\$4,206,000	\$0	\$4,207,000
30.0%	\$3,547,000	\$764,000	\$4,463,000	\$0	\$4,464,000
40.0%	\$3,714,000	\$888,000	\$4,710,000	\$0	\$4,713,000
50.0%	\$3,885,000	\$1,003,000	\$4,952,000	\$0	\$4,960,000
60.0%	\$4,059,000	\$1,126,000	\$5,199,000	\$0	\$5,211,000
70.0%	\$4,254,000	\$1,273,000	\$5,476,000	\$0	\$5,490,000
75.0%	\$4,367,000	\$1,365,000	\$5,641,000	\$0	\$5,661,000
80.0%	\$4,507,000	\$1,466,000	\$5,804,000	\$0	\$5,825,000
85.0%	\$4,664,000	\$1,585,000	\$6,014,000	\$0	\$6,036,000
90.0%	\$4,861,000	\$1,753,000	\$6,308,000	\$0	\$6,343,000
95.0%	\$5,182,000	\$2,001,000	\$6,725,000	\$0	\$6,798,000
99.0%	\$5,878,000	\$2,562,000	\$7,623,000	\$607,000	\$7,748,000
Expected	\$3,942,000	\$1,078,000	\$5,020,000	\$15,000	\$5,035,000
Vehicles	13,835				
Students	475,124		_		
ost Per Student	\$8.30	\$2.27	\$10.57	\$0.03	\$10.60

#### Oklahoma Schools Insurance Group Property including Auto Physical Damage

#### Ultimate and Outstanding Losses As of June 30, 2021

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
			Projected	Projected	Projected		
Accident		Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	SIR	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$100k/\$200k	\$312,045	\$312,045	\$312,045	\$0	\$0	\$0
7/1/03-04	\$100k/\$200k	\$1,287,169	\$1,287,169	\$1,287,169	\$0	\$0	\$0
7/1/04-05	\$100k/\$200k	\$1,266,993	\$1,266,993	\$1,266,993	\$0	\$0	\$0
7/1/05-06	\$100k/\$200k \$100k/\$200k	\$2,616,997	\$2,616,997	\$2,616,997	\$0	\$0	\$0
7/1/05-06	\$100k/\$200k \$100k/\$200k	\$2,604,514	\$2,604,514	\$2,616,557	\$0	\$0	\$0
7/1/07-08	\$100k/\$200k \$100k/\$200k	\$3,915,481	\$3,915,481	\$3,915,481	\$0	\$0	\$0
7/1/08-09	\$100k/\$200k \$100k/\$200k		\$4,560,146	\$4,560,146	\$0	\$0	\$0
	\$100k/\$200k \$100k/\$200k	\$4,560,146			0.00	\$0	\$0
7/1/09-10	\$100k/\$200k \$100k/\$200k	\$4,870,041	\$4,870,041	\$4,870,041	\$0	\$0	\$0 \$0
7/1/10-11	\$100K/\$200K	\$3,569,472	\$3,569,472	\$3,569,472	\$0	\$0	\$0
Subtotal		\$25,002,857	\$25,002,857	\$25,002,857	\$0	\$0	\$0
7/1/11-12	\$250,000	\$3,282,543	\$3,282,543	\$3,282,543	\$0	\$0	\$0
7/1/12-13	\$250,000	\$3,032,675	\$3,032,675	\$3,032,675	\$0	\$0	\$0
7/1/13-14	\$250,000	\$2,506,177	\$2,506,177	\$2,506,177	\$0	\$0	\$0
7/1/14-15	\$250,000	\$3,465,662	\$3,465,662	\$3,465,662	\$0	\$0	\$0
7/1/15-16	\$250,000	\$3,691,893	\$3,691,893	\$3,691,893	\$0	\$0	\$0
7/1/16-17	\$250,000	\$4,974,000	\$4,616,829	\$4,925,751	\$308,923	\$48,000	\$357,000
7/1/17-18	\$250,000	\$5,061,000	\$4,728,738	\$4,969,779	\$241,041	\$91,000	\$332,000
7/1/18-19	\$250,000	\$4,967,000	\$4,480,262	\$4,787,477	\$307,216	\$180,000	\$487,000
7/1/19-20	\$250,000 / \$500,000	\$9,422,000	\$8,321,458	\$8,728,928	\$407,470	\$693,000	\$1,101,000
7/1/20-21	\$250,000 / \$750,000	\$10,497,000	\$4,584,026	\$9,033,465	\$4,449,439	\$1,464,000	\$5,913,000
Subtotal		\$50,899,950	\$42,710,262	\$48,424,351	\$5,714,089	\$2,476,000	\$8,190,000
Corridor Losses							
7/1/11-12	\$2,700,000	\$735,946	\$735,946	\$735,946	\$0	\$0	\$0
7/1/12-13	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$0	\$0	\$0
7/1/13-14	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/14-15	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/15-16	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/16-17	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/17-18	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/18-19	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/19-20	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$0	\$0	\$0
7/1/20-21	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$0	\$0	\$0
Subtotal		\$15,935,946	\$15,935,946	\$15,935,946	\$0	\$0	\$0
Total		\$91,839,000	\$83,649,066	\$89,363,154	\$5,714,089	\$2,476,000	\$8,190,000

<sup>(</sup>C) - Ultimate losses are equal to limited reported losses in (E) through 10-11 Exhibit 3 for 11-12 to present

<sup>(</sup>D) and (E) - Projected using loss deveopment factors

<sup>(</sup>F) = (E) - (D)

<sup>(</sup>G) = (C) - (E)

<sup>(</sup>H) = (C) - (D)

# Oklahoma Schools Insurance Group

Property including Auto Physical Damage

# Percentile Distribution of IBNR For Property Coverages As of June 30, 2021

percentile	Ultimate Losses	IBNR Reserve	Total Reserve
Expected	\$91,839,000	\$2,476,000	\$8,190,000
40%	\$91,034,000	\$1,671,000	\$7,385,000
50%	\$91,674,000	\$2,311,000	\$8,025,000
60%	\$92,337,000	\$2,974,000	\$8,688,000
70%	\$93,097,000	\$3,734,000	\$9,448,000
75%	\$93,511,000	\$4,148,000	\$9,862,000
80%	\$93,962,000	\$4,599,000	\$10,313,000
90%	\$95,279,000	\$5,916,000	\$11,630,000
95%	\$96,340,000	\$6,977,000	\$12,691,000

Total Expected Ultimate Losses	\$91,839,000
Total Paid Losses as of 6/30/21	\$83,649,066
Total Case Reserves as of 6/30/21	\$5,714,089
Total IBNR Reserves as of 6/30/21	\$2,476,000
Total Outstanding Losses as of 6/30/21	\$8,190,000

#### Comparison of Results with Previous Estimates as of 12/31/20

(A)	(B) Prior	(C) Expected	(D) Actual	(E)	(F) Prior	(G) Current	(H)	(1)
	Reported	Reported	Reported		Ultimate	Ultimate		
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Year-end	Percent
Period	12/31/2020	6/30/2021	6/30/2021	Difference	12/31/2020	6/30/2021	Adjustment	Difference
Limited to SIR								
7/1/11-12	\$3,282,543	\$3,282,543	\$3,282,543	0.0%	\$3,282,543	\$3,282,543	\$0	0.0%
7/1/12-13	\$3,032,675	\$3,032,675	\$3,032,675	0.0%	\$3,032,675	\$3,032,675	\$0	0.0%
7/1/13-14	\$2,506,177	\$2,506,177	\$2,506,177	0.0%	\$2,506,177	\$2,506,177	\$0	0.0%
7/1/14-15	\$3,720,690	\$3,720,690	\$3,465,662	-6.9%	\$3,730,000	\$3,465,662	-\$264,338	-7.1%
7/1/15-16	\$3,724,762	\$3,730,609	\$3,691,893	-1.0%	\$3,744,000	\$3,691,893	-\$52,107	-1.4%
7/1/16-17	\$4,699,199	\$4,714,644	\$4,925,751	4.5%	\$4,749,000	\$4,974,000	\$225,000	4.7%
7/1/17-18	\$5,192,157	\$5,229,625	\$4,969,779	-5.0%	\$5,311,000	\$5,061,000	-\$250,000	-4.7%
7/1/18-19	\$4,562,010	\$4,635,057	\$4,787,477	3.3%	\$4,792,000	\$4,967,000	\$175,000	3.7%
7/1/19-20	\$8,729,260	\$9,652,419	\$8,728,928	-9.6%	\$9,722,000	\$9,422,000	-\$300,000	-3.1%
7/1/20-21	\$3,782,666	\$9,508,714	\$9,033,465	-5.0%	\$10,497,000	\$10,497,000	\$0	0.0%
Total	\$43,232,139	\$50,013,151	\$48,424,351	-3.2%	\$51,366,000	\$50,900,000	-\$466,000	-0.9%
Unlimited		\$0						
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	\$0	0.0%
7/1/12-13	\$6,136,455	\$6,136,455	\$6,136,455	0.0%	\$6,136,455	\$6,136,455	\$0	0.0%
7/1/13-14	\$4,590,290	\$4,590,290	\$4,590,290	0.0%	\$4,590,290	\$4,590,290	\$0	0.0%
7/1/14-15	\$7,768,693	\$7,768,693	\$7,460,683	-4.0%	\$7,800,000	\$7,500,000	-\$300,000	-3.8%
7/1/15-16	\$14,849,611	\$14,906,400	\$13,429,072	-9.9%	\$15,002,000	\$13,552,000	-\$1,450,000	-9.7%
7/1/16-17	\$11,283,333	\$11,394,725	\$12,790,137	12.2%	\$11,583,000	\$12,983,000	\$1,400,000	12.1%
7/1/17-18	\$22,481,686	\$23,048,059	\$17,962,118	-22.1%	\$24,033,000	\$19,033,000	-\$5,000,000	-20.8%
7/1/18-19	\$32,890,372	\$34,946,348	\$39,783,044	13.8%	\$38,849,000	\$43,649,000	\$4,800,000	12.4%
7/1/19-20	\$76,536,545	\$84,566,703	\$99,071,046	17.2%	the state of the state of the state of	\$122,434,000	\$19,000,000	18.4%
7/1/20-21	\$5,948,187	\$19,487,754	\$36,756,523	88.6%	\$30,111,000	\$50,111,000	\$20,000,000	66.4%
Total	\$186,503,660	\$210,863,916	\$241,997,857	14.8%	\$245,557,000	\$284,007,000	\$38,450,000	15.7%
SIR + Corridor								
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	\$0	0.0%
7/1/12-13	\$5,432,675	\$5,432,675	\$5,432,675	0.0%	\$5,432,675	\$5,432,675	\$0	0.0%
7/1/13-14	\$3,906,177	\$3,906,177	\$3,906,177	0.0%	\$3,906,177	\$3,906,177	\$0	0.0%
7/1/14-15	\$5,120,690	\$5,120,690	\$4,865,662	-5.0%	\$5,130,000	\$4,865,662	-\$264,338	-5.2%
7/1/15-16	\$5,124,762	\$5,130,609	\$5,091,893	-0.8%	\$5,144,000	\$5,091,893	-\$52,107	-1.0%
7/1/16-17	\$6,099,199	\$6,114,644	\$6,325,751	3.5%	\$6,149,000	\$6,374,000	\$225,000	3.7%
7/1/17-18	\$6,592,157	\$6,629,625	\$6,369,779	-3.9%	\$6,711,000	\$6,461,000	-\$250,000	-3.7%
7/1/18-19	\$5,962,010	\$6,035,057	\$6,187,477	2.5%	\$6,192,000	\$6,367,000	\$175,000	2.8%
7/1/19-20	\$10,129,260	\$11,052,419	\$10,128,928	-8.4%	\$11,122,000	\$10,822,000	-\$300,000	-2.7%
7/1/20-21	\$5,948,187	\$12,508,714	\$12,033,465	-3.8%	\$13,497,000	\$13,497,000	\$0	0.0%
Total	\$58,333,606	\$65,949,097	\$64,360,297	-2.4%	\$67,302,000	\$66,836,000	-\$466,000	-0.7%

<sup>(</sup>B) and (F) - From Previous actuarial report as of 12/31/2020

<sup>(</sup>C) - Derived from (B) and (F) using loss development patterns

<sup>(</sup>D) - Exhibit 1-C

<sup>(</sup>E) = [(D)/(C)] - 1

<sup>(</sup>G) = (F) + (H)

<sup>(</sup>H) - judgmentally selected

<sup>(1) = [(</sup>G)/(F)] - 11

#### Comparison of Results with Previous Estimates as of 6/30/20

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Prior	Expected	Actual		Prior	Current	
Acceptant.	Reported	Reported	Reported	B	Ultimate	Ultimate	0
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Percent
Period	6/30/2020	6/30/2021	6/30/2021	Difference	6/30/2020	6/30/2021	Differenc
Limited to SIR							
7/1/11-12	\$3,282,543	\$3,282,543	\$3,282,543	0.0%	\$3,282,543	\$3,282,543	0.0%
7/1/12-13	\$3,032,675	\$3,032,675	\$3,032,675	0.0%	\$3,032,675	\$3,032,675	0.0%
7/1/13-14	\$2,506,177	\$2,506,177	\$2,506,177	0.0%	\$2,510,352	\$2,506,177	-0.2%
7/1/14-15	\$3,720,690	\$3,720,690	\$3,465,662	-6.9%	\$3,740,662	\$3,465,662	-7.4%
7/1/15-16	\$3,724,762	\$3,737,358	\$3,691,893	-1.2%	\$3,744,000	\$3,691,893	-1.4%
7/1/16-17	\$4,699,189	\$4,787,237	\$4,925,751	2.9%	\$4,833,000	\$4,974,000	2.9%
7/1/17-18	\$5,038,789	\$5,217,674	\$4,969,779	-4.8%	\$5,310,000	\$5,061,000	-4.7%
7/1/18-19	\$4,660,002	\$4,824,016	\$4,787,477	-0.8%	\$4,910,000	\$4,967,000	1.2%
7/1/19-20	\$8,100,294	\$9,286,169	\$8,728,928	-6.0%	\$9,350,000	\$9,422,000	0.8%
7/1/20-21		\$9,016,930	\$9,033,465	0.2%	\$10,497,000	\$10,497,000	0.0%
Total	\$38,765,120	\$49,411,468	\$48,424,351	-2.0%	\$51,210,000	\$50,900,000	-0.6%
Unlimited		\$0					
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$6,136,455	\$6,136,455	\$6,136,455	0.0%	\$6,136,455	\$6,136,455	0.0%
7/1/13-14	\$4,590,290	\$4,590,290	\$4,590,290	0.0%	\$4,590,290	\$4,590,290	0.0%
7/1/14-15	\$7,768,693	\$7,768,693	\$7,460,683	-4.0%	\$7,787,000	\$7,500,000	-3.7%
7/1/15-16	\$14,849,611	\$14,902,421	\$13,429,072	-9.9%	\$14,941,000	\$13,552,000	-9.3%
7/1/16-17	\$11,283,323	\$11,400,516	\$12,790,137	12.2%	\$11,474,000	\$12,983,000	13.2%
7/1/17-18	\$21,777,841	\$22,246,811	\$17,962,118	-19.3%	\$22,496,000	\$19,033,000	-15.4%
7/1/18-19	\$29,947,726	\$31,657,302	\$39,783,044	25.7%	\$32,439,000	\$43,649,000	34.6%
7/1/19-20	\$44,221,069	\$51,701,693	\$99,071,046	91.6%	\$52,528,000	\$122,434,000	133.1%
7/1/20-21	6.4503.00	\$20,565,607	\$36,756,523	78.7%	\$30,111,000	\$50,111,000	66.4%
Total	\$144,593,496	\$174,988,275	\$241,997,857	38.3%	\$186,521,000	\$284,007,000	52.3%
SIR + Corridor							
7/1/11-12	\$4,018,489	\$4,018,489	\$4,018,489	0.0%	\$4,018,489	\$4,018,489	0.0%
7/1/12-13	\$5,432,675	\$5,432,675	\$5,432,675	0.0%	\$5,432,675	\$5,432,675	0.0%
7/1/13-14	\$3,906,177	\$3,906,177	\$3,906,177	0.0%	\$3,910,352	\$3,906,177	-0.1%
7/1/14-15	\$5,120,690	\$5,120,690	\$4,865,662	-5.0%	\$5,140,662	\$4,865,662	-5.3%
7/1/15-16	\$5,124,762	\$5,137,358	\$5,091,893	-0.9%	\$5,144,000	\$5,091,893	-1.0%
7/1/16-17	\$6,099,189	\$6,187,237	\$6,325,751	2.2%	\$6,233,000	\$6,374,000	2.3%
7/1/17-18	\$6,438,789	\$6,617,674	\$6,369,779	-3.7%	\$6,710,000	\$6,461,000	-3.7%
7/1/18-19	\$6,060,002	\$6,224,016	\$6,187,477	-0.6%	\$6,310,000	\$6,367,000	0.9%
7/1/19-20	\$9,500,294	\$10,686,169	\$10,128,928	-5.2%	\$10,750,000	\$10,822,000	0.7%
7/1/20-21		\$12,016,930	\$12,033,465	0.1%	\$13,497,000	\$13,497,000	0.0%
Total	\$51,701,066	\$65,347,414	\$64,360,297	-1.5%	\$67,146,000	\$66,836,000	-0.5%

(B) and (F) - From Previous actuarial report as of 6/30/2020

<sup>(</sup>C) - Derived from (B) and (F) using loss development patterns

<sup>(</sup>D) - Exhibit 1-C

<sup>(</sup>E) = [(D) / (C)] - 1

<sup>(</sup>G) - Exhibit 3

<sup>(</sup>H) = [(G)/(F)] - 1

Automobile and General Liability (including E&O)

#### Forecast Ultimate Losses for 7/1/21-22

Auto Physical Damage - Primary Only Retention
Property with APD - Maintenance Deductible
Property with APD - Aggregate Retention
Property with APD - Trailing Deductible
\$100,000

	Auto Physical Damage Primary Only Members	Property/APD Program	Total (PR and APD)
Forecast Ultimate Losses	\$83,000	\$28,510,000	\$28,593,000
Exposure	919	\$197,547,513	
Cost per exposure*	\$90.32	\$0.144	\$0.145
Forecast Claim Counts	10.6	391.8	
Average Claim Severity	\$7,800	\$72,800	

<sup>\*</sup> Exposures are Vehicles for APD, and \$100 TIV for Property

<sup>-</sup> Auto Physical Damage claims due to Over the Road accidents do not erode the aggregate

#### Forecast Ultimate Losses for 7/1/21-22

Maintenance Deductible Aggregate Deductible Trailing Deductible \$25,000 \$25,000,000 \$100,000

(A)	(B)	(C)	(D)	(E)	(F) Total	(G) Total Net	(H)
	Ultimate	Member	Retained	Unlimited	Program	of Member	Insured
Percentile	Claims	Deductibles	APD Losses	Losses	Losses	Deductibles	Excess
20.0%	375	\$1,683,000	\$25,000	\$32,303,000	\$29,878,000	\$28,085,000	\$2,209,000
30.0%	381	\$1,760,000	\$25,000	\$36,003,000	\$30,263,000	\$28,422,000	\$5,500,000
40.0%	387	\$1,830,000	\$25,000	\$39,672,000	\$30,586,000	\$28,703,000	\$8,852,000
50,0%	392	\$1,898,000	\$50,000	\$43,647,000	\$30,890,000	\$28,966,000	\$12,552,000
60.0%	397	\$1,968,000	\$75,000	\$48,338,000	\$31,196,000	\$29,235,000	\$16,994,000
70.0%	402	\$2,047,000	\$75,000	\$54,267,000	\$31,533,000	\$29,529,000	\$22,676,000
75.0%	405	\$2,090,000	\$75,000	\$57,972,000	\$31,719,000	\$29,691,000	\$26,268,000
80.0%	408	\$2,142,000	\$125,000	\$62,422,000	\$31,926,000	\$29,877,000	\$30,633,000
85.0%	412	\$2,201,000	\$125,000	\$67,883,000	\$32,168,000	\$30,092,000	\$36,002,000
90.0%	417	\$2,279,000	\$155,000	\$75,123,000	\$32,473,000	\$30,361,000	\$43,163,000
95.0%	425	\$2,398,000	\$155,000	\$86,401,000	\$32,907,000	\$30,748,000	\$54,219,000
99.0%	439	\$2,634,000	\$155,000	\$109,951,000	\$33,670,000	\$31,435,000	\$77,454,000
Expected	392	\$1,917,000	\$60,000	\$48,209,000	\$30,426,000	\$28,510,000	\$17,783,000
TIV in \$00s	\$197,547,513						
Rate				\$0.244	\$0.154	\$0.144	\$0.090

Auto Physical Damage

# Distribution of Forecast Losses for 7/1/21-22

Percentile	Members at Primary Limits
20.0%	\$69,000
30.0%	\$74,000
40.0%	\$78,000
50.0%	\$82,000
60.0%	\$86,000
70.0%	\$90,000
75.0%	\$93,000
80.0%	\$96,000
85.0%	\$99,000
90.0%	\$104,000
95.0%	\$111,000
99.0%	\$127,000
Expected	\$83,000
Vehicles	919
Expected Rate per Vehicle	\$90.26
Forecast Claims	10.6
Severity	\$7,800

#### Comparison of Results with Previous Estimates as of 12/31/20

(A)	(B) Actual Reported	(C) Expected Reported	(D) Actual Reported	(E)	(F) Actual Paid	(G) Expected Paid	(H) Actual Paid	(1)	(J) Expected Ultimate	(K) Actual Ultimate	(L)	(M)
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Year-end	Percent
Period	12/31/2020	6/30/2021	6/30/2021	Difference	12/31/2020	6/30/2021	6/30/2021	Difference	12/31/2020	6/30/2021	Adjustment	Difference
7/1/02-03	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	\$65,087	0.0%	\$65,087	\$65,087	\$0	0.0%
7/1/03-04	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	\$357,297	0.0%	\$357,297	\$357,297	\$0	0.0%
7/1/04-05	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	\$618,336	0.0%	\$618,336	\$618,336	\$0	0.0%
7/1/05-06	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	\$450,928	0.0%	\$450,928	\$450,928	\$0	0.0%
7/1/06-07	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	\$535,205	0.0%	\$535,205	\$535,205	\$0	0.0%
7/1/07-08	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	\$759,907	0.0%	\$759,907	\$759,907	\$0	0.0%
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	\$1,423,346	0.0%	\$1,423,346	\$1,423,346	\$0	0.0%
7/1/09-10	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	\$703,413	0.0%	\$703,413	\$703,413	\$0	0.0%
7/1/10-11	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	\$843,333	0.0%	\$843,333	\$843,333	\$0	0.0%
7/1/11-12	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	\$948,511	0.0%	\$948,511	\$948,511	\$0	0.0%
7/1/12-13	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	\$625,317	0.0%	\$625,317	\$625,317	\$0	0.0%
7/1/13-14	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	\$699,842	0.0%	\$699,842	\$699,842	\$0	0.0%
7/1/14-15	\$1,107,640	\$1,108,198	\$1,107,640	-0.1%	\$1,011,872	\$1,041,093	\$1,021,868	-1.8%	\$1,110,000	\$1,110,000	\$0	0.0%
7/1/15-16	\$1,114,040	\$1,115,373	\$1,114,040	-0.1%	\$1,026,848	\$1,055,243	\$1,030,273	-2.4%	\$1,119,000	\$1,119,000	\$0	0.0%
7/1/16-17	\$1,205,255	\$1,208,284	\$1,184,279	-2.0%	\$1,000,113	\$1,068,151	\$1,014,218	-5.0%	\$1,215,000	\$1,200,000	-\$15,000	-1.2%
7/1/17-18	\$915,912	\$932,472	\$915,912	-1.8%	\$621,489	\$729,972	\$632,806	-13,3%	\$961,000	\$936,000	-\$25,000	-2.6%
7/1/18-19	\$1,033,444	\$1,073,559	\$1,122,449	4.6%	\$783,981	\$888,908	\$863,109	-2.9%	\$1,124,000	\$1,174,000	\$50,000	4.4%
7/1/19-20	\$1,309,491	\$1,419,394	\$1,199,899	-15.5%	\$898,995	\$1,066,389	\$983,332	-7.8%	\$1,519,000	\$1,394,000	-\$125,000	-8.2%
7/1/20-21	\$482,746	\$986,873	\$910,954	-7.7%	\$149,126	\$536,589	\$371,199	-30.8%	\$1,117,000	\$1,042,000	-\$75,000	-6.7%
Total	\$15,199,051	\$15,874,674	\$15,585,695	-1.8%	\$13,522,946	\$14,416,868	\$13,947,327	-3.3%	\$16,196,000	\$16,006,000	-\$190,000	-1.2%

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 12/31/2020 (C) and (G) - Based on information available as of 12/31/2020 (D) and (H) - Exhibit 1-C (E) = [(D) / (C)] - 1 (I) = [(H) / (G)] - 1 (K) = (J) + (L) (L) = judgmentally selected (M) = [(K) / (J)] - 1

# **Automobile Liability**

# **Estimated Outstanding Losses** As of June 30, 2021

(A)	(B) Estimated	(C) Limited	(D) Limited	(E) Limited	(F)	(G)	
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding	
Period	Losses	Losses	Losses	Reserves	Losses	Losses	
7/1/02-03	\$65,087	\$65,087	\$65,087	\$0	\$0	\$0	
7/1/03-04	\$357,297	\$357,297	\$357,297	\$0	\$0	\$0	
7/1/04-05	\$618,336	\$618,336	\$618,336	\$0	\$0	\$0	
7/1/05-06	\$450,928	\$450,928	\$450,928	\$0	\$0	\$0	
7/1/06-07	\$535,205	\$535,205	\$535,205	\$0	\$0	\$0	
7/1/07-08	\$759,907	\$759,907	\$759,907	\$0	\$0	\$0	
7/1/08-09	\$1,423,346	\$1,423,346	\$1,423,346	\$0	\$0	\$0	
7/1/09-10	\$703,413	\$703,413	\$703,413	\$0	\$0	\$0	
7/1/10-11	\$843,333	\$843,333	\$843,333	\$0	\$0	\$0	
7/1/11-12	\$948,511	\$948,511	\$948,511	\$0	\$0	\$0	
7/1/12-13	\$625,317	\$625,317	\$625,317	\$0	\$0	\$0	
7/1/13-14	\$699,842	\$699,842	\$699,842	\$0	\$0	\$0	
7/1/14-15	\$1,110,000	\$1,021,868	\$1,107,640	\$85,772	\$2,000	\$88,000	
7/1/15-16	\$1,119,000	\$1,030,273	\$1,114,040	\$83,767	\$5,000	\$89,000	
7/1/16-17	\$1,200,000	\$1,014,218	\$1,184,279	\$170,061	\$16,000	\$186,000	
7/1/17-18	\$936,000	\$632,806	\$915,912	\$283,106	\$20,000	\$303,000	
7/1/18-19	\$1,174,000	\$863,109	\$1,122,449	\$259,341	\$52,000	\$311,000	
7/1/19-20	\$1,394,000	\$983,332	\$1,199,899	\$216,567	\$194,000	\$411,000	
7/1/20-21	\$1,042,000	\$371,199	\$910,954	\$539,755	\$131,000	\$671,000	
Total	\$16,006,000	\$13,947,327	\$15,585,695	\$1,638,368	\$420,000	\$2,059,000	

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Exhibit 1-C

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G)=(B)-(C)

#### Comparison of Results with Previous Estimates as of 12/31/20

(A)	(B) Actual Reported	(C) Expected Reported	(D) Actual Reported	(E)	(F) Actual Paid	(G) Expected Paid	(H) Actual Paid	(1)	(J) Expected Ultimate	(K) Actual Ultimate	(L)	(M)
Accident	Losses	Losses	Losses	Percent	Losses	Losses	Losses	Percent	Losses	Losses	Year-end	Percent
Period	12/31/2020	6/30/2021	6/30/2021	Difference	12/31/2020	6/30/2021	6/30/2021	Difference	12/31/2020	6/30/2021	Adjustment	Difference
7/1/02-03	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	\$168,909	0.0%	\$168,909	\$168,909	\$0	0.0%
7/1/03-04	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	\$840,274	0.0%	\$840,274	\$840,274	\$0	0.0%
7/1/04-05	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	\$488,972	0.0%	\$488,972	\$488,972	\$0	0.0%
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	\$1,253,449	0.0%	\$1,253,449	\$1,253,449	\$0	0.0%
7/1/06-07	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	\$953,237	0.0%	\$953,237	\$953,237	\$0	0.0%
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	\$1,432,614	0.0%	\$1,432,614	\$1,432,614	\$0	0.0%
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	\$1,159,541	0.0%	\$1,159,541	\$1,159,541	\$0	0.0%
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	\$1,271,848	0.0%	\$1,271,848	\$1,271,848	\$0	0.0%
7/1/10-11	\$1,838,086	\$1,841,400	\$1,821,552	-1.1%	\$1,821,235	\$1,829,038	\$1,821,552	-0.4%	\$1,848,000	\$1,848,000	\$0	0.0%
7/1/11-12	\$1,459,814	\$1,459,877	\$1,459,814	0.0%	\$1,459,814	\$1,459,871	\$1,459,814	0.0%	\$1,460,000	\$1,460,000	\$0	0.0%
7/1/12-13	\$778,348	\$778,573	\$778,348	0.0%	\$742,998	\$754,616	\$743,271	-1.5%	\$779,000	\$779,000	\$0	0.0%
7/1/13-14	\$806,844	\$806,899	\$806,844	0.0%	\$773,808	\$785,105	\$774,693	-1.3%	\$807,000	\$807,000	\$0	0.0%
7/1/14-15	\$1,643,386	\$1,645,382	\$1,642,863	-0.2%	\$1,574,030	\$1,600,936	\$1,583,654	-1.1%	\$1,649,000	\$1,649,000	\$0	0.0%
7/1/15-16	\$1,686,295	\$1,691,594	\$1,650,478	-2.4%	\$1,636,015	\$1,660,466	\$1,638,062	-1.3%	\$1,701,000	\$1,676,000	-\$25,000	-1.5%
7/1/16-17	\$2,511,382	\$2,530,154	\$2,459,288	-2.8%	\$1,748,276	\$2,062,445	\$1,847,619	-10.4%	\$2,563,000	\$2,503,000	-\$60,000	-2.3%
7/1/17-18	\$1,499,593	\$1,564,320	\$1,391,652	-11.0%	\$799,130	\$1,121,705	\$1,012,915	-9.7%	\$1,678,000	\$1,453,000	-\$225,000	-13.4%
7/1/18-19	\$1,916,027	\$2,000,723	\$1,842,970	-7.9%	\$561,758	\$1,014,357	\$672,626	-33.7%	\$2,157,000	\$2,007,000	-\$150,000	-7.0%
7/1/19-20	\$1,472,605	\$1,619,622	\$1,444,726	-10.8%	\$131,065	\$391,103	\$328,305	-16.1%	\$1,936,000	\$1,786,000	-\$150,000	-7.7%
7/1/20-21	\$789,033	\$1,622,682	\$1,506,887	-7.1%	\$57,898	\$190,086	\$289,383	52.2%	\$2,536,000	\$2,461,000	-\$75,000	-3.0%
Total	\$23,970,256	\$25,130,070	\$24,374,266	-3.0%	\$18,874,869	\$20,438,571	\$19,740,739	-3.4%	\$26,683,000	\$25,998,000	-\$685,000	-2.6%

<sup>(</sup>B), (F) and (J) - From Previous actuarial report as of 12/31/2020 (C) and (G) - Based on information available as of 12/31/2020 (D) and (H) - Exhibit 1-C (E) = [[D] / (C]] - 1 (I) = [[H] / (G)] - 1 (K) = (J) + (L) (L) = judgmentally selected (M) = [(K) / (J)] - 1

General Liability including E&O

# Estimated Outstanding Losses As of June 30, 2021

(A)	(B) Estimated	(C) Limited	(D) Limited	(E) Limited	(F)	(G)
Accident	Ultimate	Paid	Reported	Case	IBNR	Outstanding
Period	Losses	Losses	Losses	Reserves	Losses	Losses
7/1/02-03	\$168,909	\$168,909	\$168,909	\$0	\$0	\$0
7/1/03-04	\$840,274	\$840,274	\$840,274	\$0	\$0	\$0
7/1/04-05	\$488,972	\$488,972	\$488,972	\$0	\$0	\$0
7/1/05-06	\$1,253,449	\$1,253,449	\$1,253,449	\$0	\$0	\$0
7/1/06-07	\$953,237	\$953,237	\$953,237	\$0	\$0	\$0
7/1/07-08	\$1,432,614	\$1,432,614	\$1,432,614	\$0	\$0	\$0
7/1/08-09	\$1,159,541	\$1,159,541	\$1,159,541	\$0	\$0	\$0
7/1/09-10	\$1,271,848	\$1,271,848	\$1,271,848	\$0	\$0	\$0
7/1/10-11	\$1,848,000	\$1,821,552	\$1,821,552	\$0	\$26,000	\$26,000
7/1/11-12	\$1,460,000	\$1,459,814	\$1,459,814	\$0	\$0	\$0
7/1/12-13	\$779,000	\$743,271	\$778,348	\$35,076	\$1,000	\$36,000
7/1/13-14	\$807,000	\$774,693	\$806,844	\$32,151	\$0	\$32,000
7/1/14-15	\$1,649,000	\$1,583,654	\$1,642,863	\$59,209	\$6,000	\$65,000
7/1/15-16	\$1,676,000	\$1,638,062	\$1,650,478	\$12,416	\$26,000	\$38,000
7/1/16-17	\$2,503,000	\$1,847,619	\$2,459,288	\$611,669	\$44,000	\$655,000
7/1/17-18	\$1,453,000	\$1,012,915	\$1,391,652	\$378,737	\$61,000	\$440,000
7/1/18-19	\$2,007,000	\$672,626	\$1,842,970	\$1,170,343	\$164,000	\$1,334,000
7/1/19-20	\$1,786,000	\$328,305	\$1,444,726	\$1,116,421	\$341,000	\$1,458,000
7/1/20-21	\$2,461,000	\$289,383	\$1,506,887	\$1,217,504	\$954,000	\$2,172,000
Total	\$25,998,000	\$19,740,739	\$24,374,266	\$4,633,527	\$1,623,000	\$6,256,000

<sup>(</sup>B) - Exhibit 3

<sup>(</sup>C) and (D) - Exhibit 1-C

<sup>(</sup>E) = (D) - (C)

<sup>(</sup>F) = (B) - (D)

<sup>(</sup>G) = (B) - (C)



# Statement of Actuarial Opinion Net Retained Liabilities as of June 30, 2021 Premium Adequacy for the Policy Year 7/1/21-22

# Oklahoma Schools Insurance Group

I, Laura T. Sprouse, am an independent consultant to Oklahoma Schools Insurance Group (OSIG). I am a Fellow of the Casualty Actuarial Society and a Member of the American Academy of Actuaries and meet the Academy's qualification standards for prescribed Statements of Actuarial Opinion. Although no formal appointment was made by the Board of Directors of OSIG, I have been asked to opine on the adequacy of the loss and loss adjustment expense reserves as of June 30, 2021, and the adequacy of premiums for the 7/1/21-22 policy period. This opinion is prepared in accordance with Actuarial Standards of Practice No. 36, Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves, No. 43, Property/Casualty Unpaid Claim Estimates, and No. 53, Estimating Future Costs for Prospective Property/Casualty Risk Transfer and Risk Retention.

#### Loss and ALAE Reserves as of June 30, 2021

I have examined the reserves listed below and in the financial statements of the Oklahoma Schools Insurance Group as prepared for filing with state regulatory officials as of June 30, 2021. These amounts represent the estimates by management of OSIG for all unpaid losses and the related loss adjustment expenses as of June 30, 2021.

Net Liabilities for Losses and ALAE as of Ju	ne 30, 2021
Net Unpaid Losses and Loss Adjustment Expenses	\$13,478,166
Incurred But Not Reported Reserves	\$4,519,000
Total Net Unpaid loss and ALAE reserves	\$17,997,166

In forming my opinion on the loss and loss adjustment expense reserves, I relied upon data provided by Jennifer McKenzie, Program Manager for OSIG, valued through June 30, 2021. I evaluated that data for reasonableness and consistency through comparison to previous reports. In other respects, my examination included such review of the actuarial assumptions and methods used and such tests of the calculations as I considered necessary.

My own analysis produced a central estimate of the outstanding losses of \$16,505,000 as of June 30, 2021, including \$11,985,983 in case reserves and IBNR reserves of \$4,519,000. My estimate is about \$1,492,183 lower than OSIG's carried reserves. My understanding is that OSIG updates the case reserve values using losses valued as of September 30, 2021.

#### **Opinion on Reserves**

In my opinion, the amounts recorded in the financial statements of OSIG:

- Meet the requirements of the insurance laws of the state of Oklahoma.
- Are consistent with the reserves computed in accordance with accepted actuarial standards of practice.
- Make a reasonable provision for all unpaid loss and loss adjustment expense obligations
  of OSIG under the terms of its contracts and agreements.

#### Risk of Material Adverse Deviation

Due to the nature of third-party liability claims and OSIG's relatively large retention, it is possible that OSIG could experience a fluctuation of material size from the expected outstanding losses. Note the significant development between June 30<sup>th</sup> and September 30<sup>th</sup> as an example. To the extent that this is not captured in the loss development patterns, there is some risk that IBNR reserves are inadequate. However, such losses would be capped to \$750,000 maximum per occurrence, and the corridor deductible has already been exhausted for each of the last six years. We have selected a materiality threshold of \$2,782,000 or 20% of surplus. While it is possible that losses could develop by more than \$2,782,000, this amount of adverse deviation is not likely. Therefore, I would conclude there is not a significant risk of material adverse deviation.

#### Premium Adequacy for the 7/1/21-22 Policy Period

My analysis produced a forecast of the ultimate retained losses for the period 7/1/21-22 of \$32,535,000. OSIG has budgeted roughly \$43,083,000 for reinsurance premiums and other expenses for a total premium need of \$75,618,000. OSIG expects to collect about \$76,221,000 in member contributions and earn another \$205,000 in investment income. Thus, there is an expected profit of \$808,000. It is my opinion that the premiums for 7/1/21-22 are adequate.



#### **Actuarial Reports**

This opinion was based on the actuarial study for OSIG dated April 21, 2021, and the update dated October 5, 2021. The two documents together constitute the actuarial report for OSIG for the fiscal year ending June 30, 2021.

This opinion was prepared solely for the purpose of filing with regulatory agencies and is not intended for any other purpose.

Best regards,

Digitally signed by Laura Sprouse, FCAS, MAAA Date: 2021-12-09 15:59:

Laura T. Sprouse, FCAS, MAAA

**Select Actuarial Services** 

4400 Harding Pike, Suite 401

Nashville, TN 37205

(615)620-7584

laura.sprouse@selectactuarial.com

December 9, 2021





June 24, 2021

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Board	OI	DIL	ec	rors

Terry Davidson, Chairman Finance Director: Comanche Schools Brown & Brown Insurance of Pryor

Christopher Kennedy 208 North Mill Street Pryor, OK 74361

RE: Salina ISD

Rick Thomas, Vice Chairman Superintendent: Skiatook Schools

Dear OSIG Agent:

Enclosed with our thanks, please find a copy of the Certificate of Coverage form and applicable Property and Automobile Schedules for Salina ISD for the period of 7/1/2021 to 7/1/2022

7/1/2022.

Dr. John Cox, Treasurer Superintendent: Peggs Schools

Sherry Durkee, Secretary Superintendent: Sand Springs Schools Brad Overton, OSIG Administration Team contacts at Gallagher

Main Toll Free	(866) 444-0061	
Jennifer McKenzie	(918) 764-7137	jennifer_mckenzie@ajg.com
Matt McClaran	(918) 764-7182	matt_mcclaran@ajg.com
Brya D'Abrosca	(918) 764-1624	brya_dabrosca@ajg.com
Susan Sullivan	(918) 764-1653	susan_sullivan@ajg.com
Beth Meeker	(918) 884-2946	beth_meeker@ajg.com

Member Superintendent: Cordell Schools Randy Hughes,

Member Superintendent: Claims Reporting

Denise Wilson (Claims Assistant) (918) 764-7136 osigclaims@ascrisk.com
Richard Hall (Claims Manager) (918) 764-7138 richard.hall@davies-group.com
Lacrista Medina (Liability Adjuster) (918) 764-1648 lacrista.medina@davies-group.com

Shelley Free Member Superintendent: Kiamichi Technology Center

McAlester Schools

David Sepulveda (Liability Adjuster) (918) 764-1637 Bill Speck (Property Adjuster) (802) 735-5796 david.sepulveda@davies-group.com bill.speck@davies-group.com

Executive Director

Boiler Inspection Hotline (800) 425-4119

David Martin

We look forward to working with you and thank you again for your support of the  $\ensuremath{\mathsf{OSIG}}$ 

program.

Sincerely,

**OSIG Administration Team** 

**Enclosures** 

P. O. Box 3068 Tulsa, OK 74101-3068 Phone 918-764-1686 • Toll Free 866-444-0061



# **Certificate of Coverage**

This is to certify the school district named below is a participant in the Oklahoma Schools Insurance Group (OSIG) effective during the coverage period indicated.

Member:

Salina ISD

**Box 98** 

Salina, OK 74365

Plan Number:

OSIG-2021

Coverage Period:

07/01/2021 12:01 am to 07/01/2022 12:01 am

#### **Commercial Property Coverage**

Property limits are per occurrence. Limits are shared by OSIG members and subject to Statement of Values.

Real And Personal Property - Limit Per Occurrence

\$700,000,000

Replacement Cost (ACV on roofs over 15 years old, Contractors Equipment and Debris

Removal Only)

Exclusion - Cosmetic loss to metal roof coverings caused by hail

Buildings - 125% of Scheduled Limits per Statement of Values

Business Personal Property - Blanket Coverage Per Statement Of Values

Earthquake Limit - Per Occurrence and Aggregate \$10,000,000
Flood Limit - Per Occurrence and Aggregate (Excludes Flood Zones A and V) \$25,000,000
Terrorism \$500,000,000
Property Deductible - Each Occurrence \$2,500
Wind/Hail Deductible - Each Occurrence \$5,000
Flood and Quake Deductible - Each Occurrence \$50,000
Terrorism Deductible Per Occurrence \$10,000

#### **Boiler & Machinery**

Boiler and Machinery Coverage As Per Statement of Values \$200,000,000

Boiler And Machinery Deductible - Each Occurrence \$1,000

#### School Violent Acts Protection

Each Occurrence Limit\$25,000Aggregate Limit (all members, all claims)\$250,000Property/Safety Improvements Following School Violent Act\$25,000Deductible\$0

#### General Liability-Per Occurrence

(Subject to Governmental Tort Claims Act)

\$1,000,000

Bodily Injury, Property Damage and Personal/Advertising Injury Premises/Operations and Products/Completed Operations

Miscellaneous Medical Professional

#### Employee Benefits Liability Coverage - Claims Made

Employee Benefits Liability - Per Occurrence

\$1,000,000



Subject to Governmental Tort Claims Act) Employment Practices Errors And Omissions Liability including Educational Errors And Omissions IEP Hearing Unlimited Prior Acts (excluding known incidents/claims) Deductible \$2,500  Automobile Liability- Per Occurrence (Subject to Governmental Tort Claims Act) Bodily Injury/Property Damage Uninsured Motorist (Oklahoma Minimum Limits) Hired And Non Owned Automobile Liability Garage Liability Auto Liability Property Damage Deductible  Automobile Physical Damage Actual Cash Value Other Than Collision And Collision Deductible Garage Keepers Legal Liability Coverage Garage Keepers Legal Liability Deductible  51,000  Crime Coverage Employee Dishonesty - Limit Per Occurrence Money And Securities - On Premises S10,000 Money And Securities - Off Premises S2,000,000 Peductible  Cyber Liability Limits are annual aggregate for each insured/member Information Data & Network Liability Regulatory Defense and Penalties S2,000,000 Payment Card Liability S2,000,000 Payment Card Liability S2,000,000 Payment Card Liability S2,000,000 Business Interruption Loss Resulting in Security Breach S2,000,000 Business Interruption Resulting in System Failure S2,000,000 Business Interruption Resulting in System Failure S500,000 Pollution Liability - Claims Made Per Pollution Incident S500,000 Reductible - Per Occurrence S2,000,000 Reductible - Per Occurrence	Educators Liability - Per Occurrence - Claims Made	\$1,000,000
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Microbial Matter Sublimit \$500,000		\$2,000,000
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Deductible 1 cl 1 olidion includit	Deductible - Per Pollution Incident	\$50,000



# **Insurance Representative**

Brown & Brown Insurance of Pryor 208 North Mill Street Pryor, OK 74361 06/24/2021

Date of Issuance

Authorized Representative Oklahoma Schools Insurance Group

This Certificate of Coverage form is an outline of the coverages provided through OSIG. It does not include all the terms, coverages, exclusions, limitations, and conditions of the actual contract language.



# Claims Reporting

When you experience a claim of any nature, it is important to notify your insurance agent as quickly as possible. It is equally important to provide your agent with as much information about the loss as possible. Your agent will then report your claim to OSIG. Of course, if your agent is unavailable, your claim can be directly reported to the OSIG administrative claim team at Gallagher.

Your report should include as much of the following information as you can gather:

- Type of claim (fire, windstorm, auto accident, etc.).
- Brief description of how claim occurred.
- Description of damaged property (building location, vehicle, etc.).
- Was anyone injured? If yes, include names, addresses, home and work phone numbers, including cell phone number, or other contact information and the description of the damaged property.
- Be sure and get the full contact information for any witnesses.
- If a police report was completed, be sure the name of the police department and their case or report numbers is included.

Prompt claim reporting is key in mitigating damages and also in reducing your exposure to litigation. OSIG depends on you to include all available information in an expeditious manner, as this valuable documentation will be used in defending OSIG cases. If you have any questions about reporting a claim to OSIG or if you need to report a claim, please contact us at 866-444-0061 or osigclaims@ascrisk.com.

# **Property Schedule**

Report Printed: 06/24/2021 10:40 pm

Salina ISD  Location	Occupied As	Bidg Value	Contents Val	Constr	SqFt	Cost per SqFt	Roof Conditions	Roof Age
101 S. Ross	Awning	\$14,612	\$0		0			
101 S. Ross	Gym	\$3,872,657	\$387,266	NC	26640	\$145		2014
101 S. Ross	Storage	\$6,722	\$687	NC	168	\$40		0
206 E. Ferry	ACV-Old Gym/Auditorium	\$400,000	\$158,521	JM	8300	\$48	territoria de la constanta de	2018
208 E Ferry	Salina Wrestling Facility	\$696,600	\$69,660	NC	5400	\$129		2020
212 E. Ferry	Central Office	\$635,651	\$101,426	MNC	4512	\$141		2015
212 E. Ferry	Fence @ Preschool	\$2,287	\$0	NC	0			0
212 E. Ferry	Preschool (No Contents)	\$374,936	\$0	JM	3280	\$114		0
215 S. Fountain	*Bus Cover	\$5,693	\$0	MNC	648	\$9		2019
215 S. Fountain	*Bus Cover	\$14,828	\$0	MNC	1656	\$9		2019
215 S. Fountain	Bus Barn	\$388,708	\$62,294	JM	4368	\$89	····	0
215 S. Fountain	Fence @ Bus Barn	\$8,573	\$0	NC	0	400		0
215 S. Fountain	Fuel Storage/Pumps (2)	\$8,002	\$573	NC	0			0
215 S. Fountain				NC	0			
	Storage Garage/Portable Stage	\$15,441	\$32,134	<del>  _                                   </del>		\$440	·····	
600 N.Owen Walter	Concession	\$16,834	\$602	F	150	\$112	***	0
600 N.Owen Walter	FB Bleachers	\$27,435	\$0	F	0			0
600 N.Owen Walter	FB Bleachers	\$55,441	\$0	F	0			0
600 N.Owen Walter	FB Light/Poles	\$91,447	\$0	F	0			0
600 N.Owen Walter	FB Scoreboard	\$13,354	\$0	NC	0			0
600 N.Owen Walter	Fieldhouse	\$798,561	\$108,874	JM	5156	\$155		2014
600 N.Owen Walter	New Fieldhouse	\$1,173,575	\$102,050	NC	7045	\$167		2019
600 N.Owen Walter	Pressbox	\$11,432	\$1,145	F	200	\$57		0
600 N.Owen Walter	Storage	\$7,002	\$703	F	175	\$40		0
707 N. Cherokee	ACV-Storage Elementary/Library/Offices/Cafeteria/Cla ssrooms (Old Elementary)	\$771,404	\$544,772	JM	27977	\$28		0
907 Saltwell	Awning @ Elementary	\$21,434	\$0	NC	0			0
907 Saltwell	Elementary	\$4,653,490	\$830,587	NC	37000	\$126	·····	2008
907 Saltwell	Elementary Gym	\$1,388,500	\$224,483	NC	10000	\$139		2008
907 Saltwell	Fence @ Elementary	\$19,824	\$0	NC	0	· · · · · · · · · · · · · · · · · · ·		0
907 Saltwell	Playground Fence	\$6,633	\$0	NC	0			
909 Saltwell	*Storage Bldg	\$28,017	\$5,727	F	1280	\$22		0
909 Saltwell	Ag Barn	\$231,000	\$2,551	NC NC	2160	\$107		2019
909 Saltwell	Band/Science	\$743,074	\$104,241	NC	4888	\$152		1996
909 Saltwell				NC	17500	\$138		0
	Middle School	\$2,421,650	\$500,036			\$130		
909 Saltwell	Middle School Awning	\$91,447	\$0	NC	0	0.100		0
909 Saltwell	Middle School Cafeteria/Classrooms	\$1,511,771	\$248,614	NC	11664	\$130		0
909 Saltwell	Storage	\$8,002	\$802	F	200	\$40		0
909 Saltwell	Vo-Ag	\$1,074,912	\$161,627	NC	9600	\$112		0
910 Saltwell	High School- North	\$1,983,130	\$305,858	NC	15128	\$131		0
910 Saltwell	High School- South (incl Awning)	\$1,509,291	\$264,028	NC	11224	\$134		0
910 Saltwell	New Baseball Scoreboard	\$16,953	\$0		0			
910 Saltwell	New Softball Scoreboard	\$11,642	\$0		0			
910 Saltwell	SB Awning/Bleachers	\$22,862	\$0	NC	0			0
910 Saltwell	SB Dugouts (2)	\$26,238	\$0	NC	0			0
910 Saltwell	SB Fence	\$17,147	\$0	NC	0		W	0
910 Saltwell	SB Pressbox	\$28,578	\$2,864	F	400	\$71		0
910 Saltwell	SB Scoreboard	\$12,745	\$0	NC	0			0
910 Saltwell	SB Storage	\$4,001	\$401	NC	100	\$40		0
910 Saltwell	Storage	\$2,560	\$256	F	64	\$40		1991
912 N. Owen Walter		\$34,294	\$0	NC .	0	7.3		0
912 N. Owen Walter		\$17,147	\$0	NC				0
912 N. Owen Walter		<del></del>	<u>_</u>	<del></del>	300	\$40		0
		\$12,003	\$1,203	JM				0
912 N. Owen Walter		\$12,003	\$0	F	300	\$40		
912 N. Owen Walter		\$12,003 \$28,578	\$0 \$0	F	300	\$40		0
912 N. Owen Walter				NC	0			0

# Salina ISD

Location Occupied As	Bidg Value	Contents Val	Constr	SqFt	SqFt	<b>Roof Conditions</b>	Roof Age
912 N. Owen Walter BB Restrooms/Storage	\$18,003	\$1,804	F	450	\$40		0
912 N. Owen Walter Indoor Batting Facility	\$1,167,900	\$116,790	NC	10000	\$117		2008

The state of the s		Ψ1,107,500	Ψ110,730	140	10000	ALLI	2000
- Construction Legend F: FRAME MFR: MOD FIR RES	Floater Limit	\$26,639,474 \$150.000	\$4,342,579 Auto Values:		\$7	81.730	and the second second second second
FR: FIR RES MNC: MAS-NC JM: JOIST MAS NC: NON-COMB	EDP Limit Extra Expense Limit	\$250,000 \$500,000	Total Values:		THE CARREST MANUAL AND PROPERTY.	63,783	

# **Auto Schedule**

Report Printed: 06/24/2021 10:40 pm

# Salina ISD

Vehicle No	Year	Make	Model	Capacity	VIN	Actual Value
1	2003	Prostock	Trailer		5B3SB16253C000316	\$2,100
2	1993	Ford	Pickup		1FTDF15N5PLA98882	\$500
3	1999	Ford	Pickup		1FTSW30F5XEA38382	\$4,500
4	1977	Ford	Pickup		F37SK202319	\$500
5	1999	Bumper	Trailer		4P5CF1624X1023334	\$1,200
6	2003	Target	Trailer		5H0BU142035003013	\$750
7	2006	Bluebird	Bus	65	1BAKFCKH46F232208	\$2,500
8	2006	Chevy	Van	8	1GNFG15XX61108749	\$1,500
9	2006	Chevy	Van	8	1GNFG15X261108695	\$1,500
10	2006	Ford	Pickup		1FTWW30T66EB49161	\$7,500
11	2006	Neckover	FFA Stock Trailer		1N9GL20226T263326	\$7,500
12	2007	Bluebird	Bus	65	1BAKFCKH27F242852	\$2,500
13	2007	Bluebird	Bus	65	1BAKFCKH07F242851	\$2,500
14	2007	Bluebird	Activity Bus	72	1BABHCPH97F245797	\$6,500
15	2009	Platinum	FFA Stock Trailer		5HMXG242191003361	\$14,000
16	2012	Thomas	Bus	71	4UZABRDU5CCBN3815	\$12,000
17	2012	Thomas	Bus	71	4UZABRDU5CCBN3816	\$12,000
18	2012	Thomas	Bus	71	4UZABRDU5CCBN3817	\$12,000
19	2015	Ford	F350		1FT8W3B65FEC45022	\$25,000
20	2017	BlackLark	Cargo Trailer		571BE2020HM021203	\$5,400
21	2019	Chevy	Suburban		1GNSCKEC8KR164987	\$40,000
22	2019	Thomas	Bus	71	4UZABRFD2KCLF9288	\$85,144
23	2019	Thomas	Bus	71	4UZABRFD4KCLF9289	\$85,144
24	2019	Thomas	Bus	71	4UZABRFD0KCLF9290	\$85,144
25	2019	Thomas	Bus	71	4UZABRFD2KCLF9291	\$85,144
26	2019	Chevy	Suburban		1GNSCKEC2KR216906	\$40,000
27	2019	Thomas	Saf-T-Liner Bus	71	4UZABRFD3KCLF9297	\$119,352
28	2019	Thomas	Saf-T-Liner Bus	71	4UZABRFD1KCLF9296	\$119,352
29	1999	Chevy	Astro Van	8	1GNDM19W7XB114649	\$500

Total Value of All Autos for Salina ISD: \$781,730



Salina ISD Box 98 Salina, OK 74365 INVOICE NO: 2021-375

DATE: July 1, 2021

AGENT:
Brown & Brown Insurance of Pryor
208 North Mill Street
Pryor, OK 74361

EFFECTIVE DATE:

7/1/2021

**EXPIRATION DATE:** 

7/1/2022

TRANSACTION	DESCRIPTION	AMOUNT	100000
RENEWAL	2021-2022	\$137,338	
	Property Casualty Coverage		

Breakdown of Coverage Cost

Property: \$116,348 Boiler & Machinery: \$664 Auto Physical Dmg: \$2,902 General Liability: \$5,227 Auto Liability: \$6,969 Educators Legal: \$5,228 **Excess Liability:** \$0 Total Annual: \$137,338

### Payment is due upon receipt of this invoice.

To avoid any delays in processing REMITTANCE SHOULD BE MAILED TO:

OSIG Dept 1990 Tulsa, OK 74182

Please make checks payable to: OKLAHOMA SCHOOL INSURANCE GROUP (OSIG)

We appreciate your business. Thank you!

P. O. Box 3068 Tulsa, OK 74101-3068 Phone 918-764-1686 • Toll Free 866-444-0061