NEBRASKA HOSPITAL-MEDICAL LIABILITY ACT EXCESS LIABILITY FUND



ANNUAL REPORT As of December 31, 2014

INTRODUCTION

The Excess Liability Fund (the Fund) is one of several Enterprise Funds maintained by Nebraska to account for operations that are financed and operated in a manner similar to private business enterprises—where the costs of providing goods and services to the general public are financed primarily through user charges.

The Fund is administered by the Nebraska Department of Insurance, as required by the Nebraska Hospital-Medical Liability Act (adopted in 1976). Revenues primarily consist of a surcharge levied on Nebraska health care providers participating voluntarily in the Excess Liability Fund, plus a small revenue stream from Nebraska health care providers unable to purchase such coverage from a licensed insurer. The Fund's Expenses include administrative costs but mostly include payments for judgments against participating health care providers, up to an occurrence limit of \$2,250,000 per plaintiff.

Most Nebraska physicians purchase excess medical professional liability coverage from the Fund, paying a premium ("the surcharge") and submitting proof of financial responsibility in the form of an underlying professional liability policy with specified coverage limits.

The body of the report focuses on the Fund's 2014 assets, operating results, liabilities and operating reserve. In this report, the terms "estimated" or "expected" refer to actuarially derived averages of possible future outcomes. In effect, the actual future may turn out to be significantly better or worse than our best current estimates and expectations. Supporting commentary and history are in Appendices A (on the Fund's Reserves and Risks), B (the Fund's limits and underlying coverage requirements) and C (historical surcharge rates).

FINANCIAL POSITION- Assets and Operations

The Fund began 2014 with assets of \$91.20 Million, and ended the year with \$92.95 Million. On a cash basis, the Fund received \$4.49 Million revenue, paid \$6.59 Million loss and loss adjustment expense, and paid \$0.18 Million administrative expenses. Underwriting cash flow (revenue minus the sum of paid losses and expenses) was minus \$2.28 Million. Investment Activity provided \$4.03 Million relief, and the Fund's assets increased this year by \$1.75 Million.

Table 1. Assets and Operations of the Fund -- Cash Basis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Calendar Year	Beginning Cash & Invested Assets	Cash Revenue	Paid Loss and Loss Expense	Admin- istrative Expenses	Direct Underwriting Cash Flow	Investment Activity	Annual Change in Assets	Year End Cash & Invested Assets
2005	58,109,769	12,799,247	14,126,368	133,643	(1,460,765)	3,699,006	2,238,241	60,348,010
2006	60,348,010	12,466,351	11,394,986	188,193	883,172	2,593,113	3,476,285	63,824,295
2007	63,824,295	10,407,093	8,491,084	171,892	1,744,117	2,581,239	4,325,356	68,149,651
2008	68,149,651	9,495,284	14,808,033	165,652	(5,478,401)	(497,649)	(5,976,050)	62,173,601
2009	62,173,601	9,298,293	5,857,305	185,933	3,255,054	9,681,857	12,936,912	75,110,513
2010	75,110,513	8,485,764	5,483,546	218,014	2,784,204	8,340,686	11,124,890	86,235,403
2011	86,235,403	5,313,025	4,355,554	188,727	768,744	2,868,206	3,636,951	89,872,354
2012	89,872,354	4,769,655	9,100,443	173,464	(4,504,251)	5,960,884	1,456,632	91,328,986
2013	91,328,986	4,849,128	4,799,715	185,739	(136,326)	7,214	(129,112)	91,199,874
2014	91,199,874	4,490,594	6,584,786	180,851	(2,275,043)	4,025,164	1,750,121	92,949,995

On a cash basis, 2014 Investment Activity for the Excess Fund netted \$4.03 Million. Components of this were \$485 Thousand short term interest, \$1.185 Million long term interest, minus \$106 Thousand investment expense and plus \$2.460 Million gain on sales of long term investments. The Fund's assets are invested by the Nebraska Investment Council, which publishes investment policies and quarterly reports on its web site, http://www.nic.ne.gov/.

FINANCIAL POSITION- Liabilities and Operating Reserve

Table 4 at the end of this section shows the Fund's Operating Reserve, which equals the Fund's Assets minus the Fund's Liabilities. Before subtracting we must estimate the Fund's 2014 liabilities for 1) claims known to the Fund, 2) claims incurred but not reported to the Fund and 3) unearned premiums.

Claims Known to the Fund at 12/31/2014

As of 12/31/2014, the actuarially estimated unpaid liability for claims that have been presented to the Fund is \$14.540 Million. Adjusters' case estimates for the same claims add up to \$16.450 Million. Our best estimate reserve for claims presented to the fund as of 12/31/2014 is \$15.495 Million (see Table 2, Column (6) below).

Table 2. Actuarial, Adjusters' and Selected Reserve Estimates (000's) Claims Made Coverage as of 12/31/2014 for Indemnity and Claims Expenses

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				=(2)-(3)			=(3)+(6)	=(7)/(1)
	Nebraska						Best	Estimated
	Excess	Actuarial	Cum. RY	Actuarial		Best	Estimate	Ultimate
	Liability	Ultimate	Paid	Estimated	Adjusters'	Estimate	Ultimate	Indemnity
	Fund	Claims-	Indemnity	Claims	Estimated	Claims -	Claims -	and Claims
Report	Revenue	Made	and	Made	Case	Made	Made	Expense
Year	(000's)	Incurred	Expense	Reserve	Reserves	Reserve	Incurred	Ratio
2001	3,867	7,756	7,756	-	-	-	7,756	200.6%
2002	6,444	16,836	16,836	-	-	-	16,836	261.3%
2003	10,042	10,897	10,897	-	-	-	10,897	108.5%
2004	11,419	8,744	8,744	-	-	-	8,744	76.6%
2005	12,799	14,913	14,913	I	1	-	14,913	116.5%
2006	12,466	11,374	11,374	-	-	-	11,374	91.2%
2007	10,407	8,546	8,546	-	-	-	8,546	82.1%
2008	9,495	3,884	3,884	-	-	-	3,884	40.9%
2009	9,298	4,661	4,661	-	-	-	4,661	50.1%
2010	8,486	5,621	5,621	-	-	-	5,621	66.2%
2011	5,313	10,781	9,568	1,214	1,500	1,357	10,924	205.6%
2012	4,770	5,189	3,030	2,159	1,600	1,880	4,910	102.9%
2013	4,849	6,373	1,510	4,863	6,050	5,457	6,967	143.7%
2014	4,491	6,408	103	6,304	7,300	6,802	6,905	153.8%
5 Yrs	27,908	34,372	19,832	14,540	16,450	15,495	35,327	126.6%
10 Yrs	82,374	77,750	63,210	14,540	16,450	15,495	78,705	95.5%

The difference between Columns (5) and (6) means we expect case reserves to provide for all claims reported to the Fund as of 12/31/2014, with \$955 Thousand left to partially provide for the Fund's IBNR. The supporting actuarial analysis is not attached to this report, but Appendix A includes an outline of the actuarial analysis and its uncertainties.

Table 2, Column (8) shows 14 years' ratios of ultimate claims-made paid loss and claims expense to the Fund's annual revenue, with five and ten year totals. The high loss ratio in 2000 reflects the Fund's surcharge percentage, which was just 5% from 1997-2000. 2002 includes about \$9.3 Million for numerous claims from a Hepatitis "C" outbreak that arose at a clinic in Fremont. The 10-year loss ratio is 95.5%, which means a decade's revenue exceeded the Fund's incurred claims and claims expenses. The five-year loss ratio, in contrast, is 126.6%, so the five years' incurred claims and claims expenses exceeded revenue by 26.6%. This means in recent years the Fund has become more dependent on investment results.

Claims Incurred but Not Reported (IBNR) to the Fund

Table 2 addressed the liability for claims already presented to the Fund through 12/31/2014. The Fund also bears liability for certain claims expected to emerge later:

- 1) The Fund's Excess coverage follows participants' primary coverage, which is generally on a claims-made basis. When written by a primary insurer, claims-made coverage by definition should generate no IBNR claims. The Fund, however, will wait while the primary carrier records a claim, investigates it, prepares to defend its policyholder, and in setting case reserves identifies it as one of the few likely to exceed the Fund threshold. At 2014 we estimate this waiting time to average 3 months, and this portion of the Fund's IBNR to be \$1.40 Million.
- 2) The Fund also receives IBNR claims due to occurrence coverage underwritten by primary insurers including the Fund's Residual Authority and "tail" coverage provided by primary insurers when a physician switches insurers, retires, dies or is disabled. As of 2014, we estimate the Fund's coverage to be 16% occurrence-basis, and this portion of the Fund's IBNR to be \$1.27 Million.
- 3) At 2014 as stated above, we expect adjusters' case reserves to provide for all claims reported to the Fund as of 12/31/2014, with \$955 Thousand extra to partially provide for the Fund's IBNR.

Adding 1) and 2), then subtracting 3), our estimate of the Fund's 2014 IBNR liability is \$1.72 Million. Supporting actuarial analysis is not attached to this report, but Appendix A includes discussion of the IBNR analysis and its uncertainties.

Unearned Premiums

At any given time, about half of the Fund revenue in the past year will be for coverage not yet provided.

(1) (2) (1) (2) Estimated Estimated Calendar Direct Cash Calendar Direct Cash Unearned Unearned Year Revenue Premium Year Revenue Premium 2005 6,399,623 2010 8,485,764 4,734,385 12,799,247 6,233,175 2,656,512 2006 12,466,351 2011 5,313,025 2007 10,407,093 5,203,546 2012 4,769,655 2,384,828 2008 9,495,284 4,747,642 2013 4,849,128 2,424,564 4,649,146 4,490,594 2,245,297 2009 9,298,293 2014

Table 3. Revenue and Unearned Premium

For 2010 only, a potentially more precise formula depended on estimated policy effective dates. Discomforted by estimating underlying policies' effective dates, we reinstated the simpler formula at 2011.

The Fund's Operating Reserve

The operating reserve equals year-end assets minus estimated year-end liabilities. Maintaining a strong operating reserve is one prudent method of addressing future uncertainties such as unanticipated fluctuations in claim costs, operational expenses or investment activity. In 2014, the Fund's operating reserve increased by \$5.45 Million, to \$73.5 Million.

Table 4. The Fund's Operating Reserve										
					(5) = (1) - (2) -					
	(1)	(2)	(3)	(4)	(3) - (4)	(6)				
Calendar Year	Year End Fund Assets	Unpaid Reported Loss & LAE	IBNR	Unearned Premiums	Operating Reserve	Annual Change				
2004	58,109,769	23,870,768	1,836,800	5,709,492	26,692,708	2,561,829				
2005	60,348,010	23,908,903	1,890,476	6,399,623	28,149,007	1,456,300				
2006	63,824,295	23,730,729	1,362,560	6,233,175	32,497,830	4,348,822				
2007	68,149,651	26,035,559	1,027,209	5,203,546	35,883,336	3,385,506				
2008	62,173,601	15,346,197	977,241	4,747,642	41,102,521	5,219,185				
2009	75,110,513	14,637,643	978,127	4,649,146	54,845,596	13,743,076				
2010	86,235,403	14,772,762	1,000,000	4,734,385	65,728,256	10,882,660				
2011	89,872,354	20,327,494	2,305,362	2,656,512	64,582,985	-1,145,271				
2012	91,328,986	19,275,299	1,630,000	2,384,828	68,038,860	3,455,875				
2013	91,199,874	17,954,231	1,350,000	2,424,564	69,471,079	1,432,219				
2014	92,949,995	15,495,242	1,720,000	2,245,297	73,489,456	5,450,596				

The ideal operating reserve for the Fund can be debated, but it clearly must be a significant amount. The operating reserve has been above \$35 Million since 2007, having increased \$37.6 Million from 2005-2010.

Two identified forces, neither of which is continuing, drove the Fund's operating reserve to this height. First, the Fund's investment activity in Table 1, column (6) reflects the fact that bond pricing recovered in 2009-2010 after losses in 2008. Bonds now typically produce low yields and their value in the market is vulnerable to increasing interest rates. The Fund experienced some of that vulnerability in 2013. Second, the Fund's report year loss ratios (see Table 2) improved over 2005-2008 after LB 998 raised the required underlying occurrence limit by 150%. The 2009-2010 loss ratios increased as we reduced the surcharge rate. 2011-2014 surcharge rates of 18% or 20% generated estimated loss ratios ranging from 103 to 206 percent. See Appendix B for the legislative history and Appendix C for the surcharge rate history.

At 2014, the Fund's operating reserve is up \$5.45 Million from 2013, a stronger outcome than expected with the 18% surcharge rate. 2014 investment activity contributed \$4.03 Million (see Table 1, Column (6)), and our estimated loss and LAE reserves are down by \$2.09 Million. The Fund's Calendar Year 2014 loss and loss expense paid increased from \$4.8 Million in 2013 to \$6.6 Million in 2014. After being in a \$65-70 Million range from 2010 to 2013 the operating reserve increased in 2014, to \$73.5 Million.

<u>Questions?</u> – Contact Gordon Hay, <u>Gordon.Hay@nebraska.gov</u>, Nebraska Department of Insurance, PO Box 82089, Lincoln, NE 68501-2089.

Appendix A. COMMENTARY – Reserves and Risks

This appendix covers three topics. The first topic is actuarial methods and risks in estimating the Fund's liability for known claims. The second topic is actuarial reserving for IBNR claims. The third topic is additional disclosures of an actuarial nature.

The Department's actuarial work was performed by Gordon Hay, Senior Casualty Actuarial Examiner within the Department, who is a Fellow of the Casualty Actuarial Society, Member of the American Academy of Actuaries, and Chartered Property and Casualty Underwriter.

Known Claims

The estimates in Column (2) of Table 2, in the body of the report above, summarize results of applying multiple actuarial methods to Fund data accumulated since July, 1976.

The \$15.495 Million reserve for known claims is down \$2.459 Million from \$17.954 Million at 2013.

Statistical and predictive challenges are inherent in actuarial analysis of claims data, and estimates of future payouts may turn out to be insufficient. The Fund may suffer from years of bad experience, and did so in 2002. See Report Year 2002 on Table 2 above (loss ratios) or Table 5 below (Col. (8) cumulative paid loss and expense), which include about \$9.3 Million from a Hepatitis "C" outbreak that arose at a clinic in Fremont. The Fund's most obvious viability concern is one or more many-defendant/many-plaintiff cases.

A stable environment contributes to certainty in actuarial estimates, but the medical malpractice insurance environment has been dynamic and at times very challenging actuarially. During the Fund's history, claims-made coverage has almost replaced occurrence coverage, reducing the Fund's exposure to IBNR. Insurance markets are not always healthy, but in recent years Nebraska medical malpractice insurance has been profitable. Ever-changing health care provider practices including risk management improvements should help contain insurance costs. Reversals on any of these fronts could cause increases in cost that erode the adequacy of an actuarial estimate.

Alternative estimates of each report year's future ultimate payout for known claims appear on Table 5 below. Four actuarial methods shown in Columns (1) to (6) support this year's actuarial known claims estimates, with Column (7) showing the actuary's selection based on results from the six methods:

- 1) <u>Traditional paid loss and ALAE development method</u>: This is similar to what the Nebraska actuary has used in the past, and assumes that over time, future payout as a report year matures will be similar to historical payouts as previous report years matured. This method's estimated ultimate loss and expense ('000's) by report year are shown in Column (1) of Table 5.
- 2) Traditional reported loss and ALAE development method: Adjusters' case reserves are added to cumulative paid-to-date data prior to measuring development. This assumes that adjusters' case reserving practices and estimates have been consistent over time. Case reserving was not consistent over the Fund's early history, but appears to have been consistent since at least 2006. This method's estimated ultimate loss and expense (000's) by report year are shown in Column (2) of Table 5.
- 3) <u>5 Years Least-squares regression method primary premium basis</u>: Least-squares estimation (LSE) uses a weighted average of two measures: first an estimated ultimate amount from a traditional paid-loss-and-ALAE development method, and second, an average ultimate amount

from previous report years. In our "primary premium basis" variation, both measures are taken in units of paid loss and ALAE per dollar of Fund participants' primary written premium. The actuary avoided dividing losses by the Fund's revenue because that revenue reflects the surcharge rates. The actuary expects to partially predict the Fund's ultimate payout by report year by including participants' primary annual written premium in the calculation. The Least-Squares-Estimate of the report year's ultimate amount is a weighted average of the two measures, with the weight on the first measure being great when there was high correlation between historical report years' paid-to-date amount at a given age and historical ultimate amounts. This method is applied to five-year histories of the Fund's paid versus reported loss ratios to primary premium. This method's estimated ultimate loss and expense (000's) by report year are shown in Column (3) for paid data and Column (4) for reported data.

4) 15 Year Least-squares regression method – report year loss and ALAE basis: This is identical to the first LSE method, but the actuary has substituted a different denominator in the two measures. In place of participants' primary annual written premium, the actuary expects the sum of adjusters' case estimates for each report year (evaluated at report year age 12 months) to partially predict the Fund's ultimate payout by report year. The actuary used 15 year averages because this denominator is less stable than the primary premium volume used for the third method. This method's estimated ultimate loss and expense (000's) by report year are shown in Column (5) for paid data and Column (6) for reported data. Column (6) for the current year is blank because this method using this denominator is mathematically inapplicable.

In all cases, the actual ultimate payouts will differ from the estimates. For any given report year, or for all report years combined, it is possible that actual ultimate payouts will exceed, even significantly exceed actuarial estimates, adjusters' case estimates, or both.

Both actuarial and adjusters' estimated reserves, shown in Columns (9) and (10), are reasonable. However, actuarial estimates vary most for report years 2012-2014, reflecting uncertainty when using low-volume data from the least mature report years. In earlier years, it would be prudent to give consideration to adjusters' estimates for any cases still pending. For the least mature report years (2012-2014) adjusters' case estimates have historically been a bit conservative so some credence is due to the lower actuarial estimates for recent years. At 2014, an effective balance is achieved in Column (11) of Table 5, by selecting the average of actuarial and adjusters' estimates for historical report years with any unpaid claims.

Table 5. Actuarial, Adjusters' and Selected Reserve Estimates (000's)

Known Claims as of 12/31/2014

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
							** See Note	-	= (5) - (6)		*** See Note
			5 Year Paid	5 Year Reported		15 Year		Cumulative	Actuarially		
			LSE Method	LSE Method	15 Year Paid	Reported LSE		Report Year	Estimated	Adjusters'	Selected Best
ъ.	D : I I DE I II.	D	Ult Primary	-		Method Ult	Incurred	Paid	Known	Estimated	Estimate
Report Year	Paid LDF Ult. Dollars	Reported LDF Ult. Dollars	Revenue Base	Revenue Base	Ult RY Case	RY Case Incurred Base	Expense	Indemnity and Expense	Claims Reserve	Case Reserves	Known Claims Reserve
1994			Dase	Dase			•	•	Reserve	Reserves	
	3,610	3,610			3,610	3,610	3,610	3,610	-	-	-
1995	4,149	4,149			4,149	4,149	4,149	4,149	-	-	-
1996	7,881	7,881			7,881	7,881	7,881	7,881	-	-	-
1997	4,751	4,751			4,751	4,751	4,751	4,751	-	-	-
1998	3,581	3,581			3,581	3,581	3,581	3,581	-	-	-
1999	8,163	8,163			8,163	8,163	8,163	8,163	-	-	-
2000	9,377	9,377			9,377	9,377	9,377	9,377	-	-	-
2001	7,756	7,756	7,756	7,756	7,756	7,756	7,756	7,756	-	-	-
2002	16,836	16,836	16,836	16,836	16,836	16,836	16,836	16,836	-	-	-
2003	10,897	10,897	10,897	10,897	10,897	10,897	10,897	10,897	-	-	-
2004	8,744	8,744	8,744	8,744	8,744	8,744	8,744	8,744	-	-	-
2005	14,960	14,913	14,960	14,913	14,960	14,913	14,913	14,913	-	-	-
2006	11,410	11,374	11,410	11,374	11,410	11,374	11,374	11,374	-	-	-
2007	8,581	8,546	8,581	8,546	8,581	8,546	8,546	8,546	-	-	-
2008	3,943	3,884	3,943	3,884	3,943	3,884	3,884	3,884	-	-	-
2009	4,806	4,661	4,792	4,462	5,169	4,468	4,661	4,661	-	-	-
2010	5,852	5,621	6,143	5,343	6,499	5,171	5,621	5,621	-	-	_
2011	10,711	9,535	10,106	8,548	10,781	8,607	10,781	9,568	1,214	1,500	1,357
2012	4,562	3,921	5,189	3,773	4,665	3,590	5,189	3,030	2,159	1,600	
2013	3,726	6,373	5,492	5,318	5,139	5,434	6,373	1,510	4,863	6,050	
2014	1,493	6,408	5,930	5,125	5,483	N.A.	6,408	103	6,304	7,300	
•		-,	- ,	-,	-,		-,			. ,2 0 0	-,
10 Years	70,043	75,236	76,547	71,286	76,629		77,750	63,210	14,540	16,450	15,495

Note: The current case reserves total 16.45 Million compared to an estimated ultimate 15.5 Million required. I expect this estimated case reserve redundancy to fund 0.95 Million of the Fund's IBNR liabilities.

IBNR

We have considered the Fund's actual loss and ALAE experience since 1976 on both a report year and accident year basis. The report year basis is appropriate for analysis of claims known to the Fund at each historical year end (including 2014), and the four supporting actuarial methods are described above. The accident year basis would be appropriate for analysis of claims, if they were insured on an occurrence basis. The supporting actuarial methods for accident year analysis are numbered 1) to 3) above (method 4 is not applicable to accident year analysis). If the coverage were 100% on an occurrence basis, the accident year analysis should logically produce ultimate loss and ALAE estimates greater than the report year analysis, and the difference between them should be for claims that have occurred, but have not yet been reported (i.e. excluding expected future development on known claims). At 2014, this difference is \$9.36 Million (down \$3.06 Million from \$12.42 Million at 2013).

But the Fund waits for claim reports while the primary carriers record, investigate, and at some point identify the few cases they present as claims to the Fund. The Fund does not know primary claims-made dates, but the actuary roughly estimates the average delay to be 3 months. At 2012, this implies about 15% of the \$9.36 Million, or \$1.40 Million provides for claims reported to primary carriers that are not yet reported to the Fund.

^{**} Selected = (2) for Report Years 1994-2010 (no open claims remain) and max (1) to (6) for Report Years 2012-2014.

^{***} Selected = average (9) and (10)

We also think only 16% of the coverage provided is on an Occurrence basis, so our occurrence IBNR estimate is 85% of 16% of \$9.36 Million , or \$1.27 Million. Combined with the \$1.40 Million above, the Fund's liability for unreported claims from the two sources is \$2.67 Million.

Third, please note that in Tables 2 and 5, we expect adjusters' estimates at \$16.450 Million to be \$955 Thousand more than needed for our known claims' ultimate cost. We expect this \$955 Thousand to fund some of the \$2.67 Million liability for unreported claims. The remaining \$1.72 Million is the Fund's 2014 carried IBNR, which appears in Table 4 Column (3).

This IBNR analysis is subject to uncertainties, including the usual statistical and predictive challenges inherent in actuarial analysis of claims data, dynamic factors in medical malpractice insurance outlined above, plus one specific unknown: primary claim report dates are not captured in the Fund actuarial data, so the Fund cannot measure delays between primary insurers' report dates and the Fund's report dates.

Actuarial Disclosures

The Fund's Annual Report is an Actuarial Report within the definition stated in Section 2.4 of Actuarial Standard of Practice No. 41 *Actuarial Communication*. The findings herein include unpaid claim estimates, so applicable standards include Actuarial Standard of Practice No. 43 *Property/Casualty Unpaid Claim Estimates*. In addition to commentary elsewhere in this Annual Report, the following formal disclosures are required under Actuarial Standards of Practice No. 41 and 43:

I, Gordon Hay, am Sr. Casualty Actuarial Examiner for the Nebraska Department of Insurance. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The actuarial report comprises the following documents:

- This Annual Report
- The excel file "Annual Totals 2014.xlsx"
- The excel file "RY by AY by CY Table as of 20141231.xlsx"
- The excel file "2014 CY Case Increments RY by AY.xlsx"

This Annual Report's intended users are the Director of the Nebraska Department of Insurance, affected Nebraska professional trade associations, medical professionals who are eligible to participate in the Fund, interested legislators, and interested members of the Nebraska general public.

From an actuarial standpoint, the scope and intended purpose is to review the estimated liabilities of the Excess Liability Fund as of December 31, 2014. The Fund's 2014 Annual Report depends on such actuarially estimated liabilities.

In reviewing the Fund's estimated liabilities at year end 2014, I relied on information provided to me on or before April 21, 2015:

- Historical claims data for the Fund, from its inception through calendar year 2010, provided by Glen Riedel, Sr. IT Infrastructure Support Analyst, Nebraska Department of Insurance
- Annual claims lists with information dates December 31, 2010, 2011, 2012, 2013 and 2014 provided by Michael Davlin, claims administrator for the Fund.
- Cash basis accounting summaries for the Fund provided by Jay Mitchell, Accounting and Finance Manager, Nebraska Department of Insurance

Appendix B. History of Underlying Coverage Requirements and the "Cap"

To participate in the Fund, a health care provider must submit proof of financial responsibility in the form of an underlying professional liability policy with specified coverage limits and pay a premium ("the surcharge") to the Fund. Following widespread practice in general liability insurance, the underlying required limits are expressed in two amounts separated by a "slash mark." The first applies under a provider's policy "per occurrence" and the second is a "total liability" for two or more occurrences. The act also establishes a "cap" on the damages any single plaintiff could recover from all qualified health care providers. The Legislature has updated these limits and the cap over the years:

- ➤ When the Fund was established in 1976, these limits were set at \$100,000/300,000 for physicians and nurse anesthetists and \$100,000/1,000,000 for hospitals, with a \$500,000 cap on the amount a plaintiff could recover from all qualified health care providers.
- ➤ LB 692 passed by the 1984 Legislature raised the cap to \$1,000,000 for incidents occurring after January 1, 1985.
- ➤ LB 1005 passed by the 1986 Legislature increased the amount of required underlying insurance to \$200,000/600,000 for physicians or nurse anesthetists and \$200,000/1,000,000 for hospitals effective January 1, 1987.
- ➤ LB 1006 passed by the 1992 Legislature then raised the cap to \$1,250,000 for incidents occurring after January 1, 1993.
- ➤ LB 146 passed by the 2003 Legislature raised the cap to \$1,750,000 for incidents occurring after January 1, 2004.
- ➤ LB 998 in 2004 raised the underlying coverage requirement to \$500,000/\$1,000,000 for all providers other than hospitals, and to \$500,000/\$3,000,000 for hospitals. The effective date of this change was the date of the provider's first qualification on or after January 2, 2005.
- ➤ LB 961 in 2014 raised the cap to \$2,250,000 for any occurrence after December 31, 2014. This increases the Fund's actuarially estimated future average claim severity by 8.1%.

Appendix C. History of Surcharge Rates

Hospital Surcharge	Time Period	Surcharge for Physicians & Others
15%	Original	50%
10%	1/1/1981	25%
1%	1-1-82 - 12-31-84	1%
50%	1-1-85 - 12-31-87	50%
50%	1/1/1988	45%
45%	1/1/1989	45%
40%	1/1/1990	40%
35%	1/1/1991	35%
40%	1-1-92 - 12-31-93	40%
30%	1-1-94 - 12-31-94	30%
15%	1-1-95 - 12-31-95	30%
10%	1-1-96 - 12-31-96	10%
5%	1-1-97 - 12-31-00	5%
20%	1-1-01 - 12-31-01	20%
35%	1-1-02 - 12-31-02	35%
50%	1-1-03 – 12-31-05	50%
45%	1-1-06 – 12-31-06	45%
40%	1-1-07 – 12-31-07	40%
35%	1-1-08 - 12-31-10	35%
20% (corrected from 2010 Rep't)	1-1-11 – 12-31-2012	20%
18%	1-1-13 – 12-31-2014	18%
20%	1-1-15 – until revised	20%

A 50% surcharge, the maximum allowed by the Act, was instituted by the Department when the Act was first put into effect to build a fund to pay claims. The Legislature did not provide any "seed money" for this purpose. In 1984, the Fund paid its first six claims. As originally written, the Act placed a statutory cap of \$5 million on the Fund's assets, and as the Fund's assets approached \$5 million in 1980, the surcharge for 1981 was reduced. A further reduction to the minimum surcharge of 1% was made for 1982 as the amount in the Fund exceeded \$5 million. LB 692 passed during the 1984 Legislature allowed the Fund's assets to anticipate future claim costs. Following that, the surcharge was raised to 50% (the maximum allowed by the Act) for all categories effective January 1, 1985. The surcharge rate was reduced in succeeding years as experience was favorable and the total assets of the Fund increased. Starting with January 1, 2001 surcharge rates increased as the Fund's losses were increasing significantly, and past loss reserves were developing unfavorably. The surcharge rate rose to the maximum 50% between 2000 and 2003.

LB 998, passed in 2004, increased the underlying coverage requirement to \$500,000 per occurrence from \$200,000 on a phased-in basis during 2005. Reductions to the surcharge rate followed, as low as 18% from 2013-2014. In 2014, LB 961 raised the damages cap per plaintiff to \$2,250,000.

Table 5. Surcharge Rates and Voluntary Participation

	(1)	(2)	(3) = (1) X (2)	(4)	(5) = (4) / (3)
Calendar Year	Medical Professional Direct Premiums Written	Nebraska Excess Liability Fund Surcharge Rate	Fund Revenue at 100% Participation Would Be:	Actual Nebraska Excess Fund Revenue	Actual Market Participation (Premium Volume)
2000	20,093,240	5%	1,004,662	901,435	89.73%
2001	24,110,258	20%	4,822,052	3,866,753	80.19%
2002	26,540,646	35%	9,289,226	6,444,233	69.37%
2003	32,008,670	50%	16,004,335	10,041,551	62.74%
2004	34,071,147	50%	17,035,574	11,418,984	67.03%
2005	36,804,243	50%	18,402,122	12,799,247	69.55%
2006	37,643,926	45%	16,939,767	12,466,351	73.59%
2007	36,964,825	40%	14,785,930	10,407,093	70.39%
2008	35,935,098	35%	12,577,284	9,495,284	75.50%
2009	36,400,709	35%	12,740,248	9,298,293	72.98%
2010	36,885,608	35%	12,909,963	8,485,764	65.73%
2011	36,321,600	20%	7,264,320	5,313,025	73.14%
2012	35,474,134	20%	7,094,827	4,769,655	67.23%
2013	36,601,858	18%	6,588,334	4,849,128	73.60%
2014	34,629,414	18%	6,233,295	4,490,594	72.04%
5 Years	179,912,614	22%	40,090,739	27,908,166	69.61%
15 Years	500,485,376	33%	163,691,937	115,047,390	70.28%

In comparing the Surcharge Rates in column (2) with the Actual Market Participation rates in column (5), it stands to reason that very low surcharge rates (e.g. year 2000) encouraged market participation (which peaked in 2000). Maximum surcharge rates (2003 to 2005) prompted a mixed market participation response. After the 2005 implementation of LB 998, the Fund's losses and ALAE decreased faster than the surcharge rate, and participation slipped in 2010, rebounded in 2011, slipped again in 2012 and bounced back in 2013. So the Surcharge Rates have responded (but not instantaneously) to changes in the coverage provided. Participation, which is voluntary among the eligible disciplines, has apparently been sensitive to the Department's selected surcharge rate, in context with the market, primary underlying limits, and excess coverage to be provided by the Fund in the coming year. For some reason from 2010 to 2014, despite no change in Fund coverage and decreasing surcharge rate, participation on a premium volume basis has varied between 66% and 74%. Note that in 2015, the cap on recovery per plaintiff increases to \$2.25 Million, and the surcharge rate will be 20%.