ACTUARIAL VALUATION OF THE

STATE OF ALASKA LONG TERM CARE PROGRAM

as of 6/30/2015

L&E
Actuaries & Consultants

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October 23, 2015

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I. Purpose and Scope

The Segal Company ("Segal") retained Lewis & Ellis, Inc. ("L&E") to perform an actuarial analysis of Alaska's Long-Term Care ("LTC") Program as of June 30, 2015. Specifically, our assignment was to develop a projection of future cash flows and to evaluate the adequacy of current assets and premium levels based on those cash flows.

This report summarizes the results of our actuarial valuation of Alaska's LTC Program as of June 30, 2015. Please note that this report is not meant to serve as complete actuarial documentation for this valuation. Additional data/information can be provided upon request.

We developed projected values using a seriatim projection model and we used those projected values along with current program financial information to determine the financial standing of the program. Consistent with the purpose of the valuation, no new business was assumed. The projection period is 60 years for the LTC in force. Gains and losses are accumulated at the effective earned rate over the projection period. The value at the end of the projection period could then be discounted at the earned rate to determine the magnitude of the deficiency reserve if the ending value was negative.

The projections of earnings are further dependent on numerous other assumptions that are outlined in detail in the following sections of this report. They are based on company experience where available and otherwise on our knowledge of industry experience. We have not generated liabilities and reserves consistent with statutory reporting requirements as this self-funded plan is not subject to such requirements.

Most of the data utilized by L&E in determining the values was obtained from the State of Alaska representatives. We did not attempt to audit or verify the accuracy of this data; however, we did review the information for reasonableness and consistency. Any inaccuracies in this information could affect the results of this report, perhaps materially. The type of information provided includes, but is not limited to:

1. Electronic listing of State of Alaska members;
2. Claim payments from 2009 to June 30, 2015;
3. Plan descriptions and gross premium rates for the model plan/age cells;
4. Financial Statements for 2013-2015;

This report has been prepared for Segal and the State of Alaska. L&E has developed this report for the purpose and with the limitations stated above. The report may not be distributed to any other party without the notification and approval of L&E. Any distribution of this report must be made in its entirety. Nothing included in this report is to be included in any filings with the Securities and Exchange Commission ("SEC") or the Internal Revenue Service ("IRS") without the prior written consent of Lewis & Ellis, Inc.

Although the valuation projects earnings, this report should not in any way be presented or construed as an actuarial appraisal. Any reader of this report must possess a substantial level of expertise in areas relevant to this analysis to appreciate the significance of the assumptions and the impact of these assumptions on the illustrated results. This report must be read in its entirety to be understood. The reader should be advised by, among other experts, an actuary competent in the area of actuarial projections of LTC blocks of business so as not to misinterpret any of the projected results.

In addition, any third party with access to this report acknowledges, as a condition of receipt, that L&E does not make any representations or warranty as to the accuracy or completeness of this report. Any third party with access to this report cannot bring suit, claim, or action against L&E, including the individuals who authored this report, under any theory of law, related in any way to this report.

This actuarial valuation was performed based on the best estimate assumptions that are appropriate at the date of valuation. We do not reflect the potential for adverse deviations in actual future experiences in our best estimate assumptions. Assumptions could change as more information becomes known, which would impact the funded status reported in this valuation.

All source records and detail information are maintained at the Allen, Texas office of L&E, and members of L&E staff are available to explain any matter presented herein.

II. Summary

The purpose of the remainder of this report is to provide analysis of the reserve adequacy for all lines of business. Premiums, benefits and expenses were projected for 60 years for the State of Alaska's LTC program and then discounted back to June 30, 2015 at an appropriate discount rate. This present value was then compared to the total assets at June 30, 2015 to determine if the current assets are sufficient to fund future claims and expenses for the next 60 years.

The following table summarizes the present value of cash flows discounted at the net earned rates.

Valuation Results
Funded Status and Margin as of June 30, 2015

Component	($000)
1. PV of Future Benefits	$642,001
2. PV of Future Expenses	$4,872
3. PV of Future Premiums (PVFP)	$285,272
4. Valuation Liabilities (=3 – 1 - 2)	($361,601)
5. Valuation Assets	$388,846
6. Valuation Margin (= 5 + 4)	$27,244
7. Margin as a % of PVFP (= 6/3)	9.6%
8. Funded Status (= 5/4)	107.5%

The Valuation Margin has fluctuated greatly over the last six years as a result of plan experience, investment returns, actuarial assumptions and the growth of the Program. The table below shows the margin/deficit for the Long-Term Care Program for the last three valuation reports ($000).

Valuation Date	Margin (Deficit)
June 30, 2009	$3,298
May 31, 2012	($70,875)
May 31, 2012 (Revised)	$30,280
June 30, 2015	$27,244

III. Methodology

The present value calculations needed to compute Program liabilities consider expected future benefits, expenses and premium revenue discounted to the current valuation date. The present value calculations consider all future variables that affect the members' continued participation in the LTC Program, as well as the benefits or expenses they will generate.

Information was provided to Lewis & Ellis regarding product specifications and in force business. The information was all as of June 30, 2015[i]. Seriatim records were used to project future premiums and claims using proprietary software and then summarized by various plans in spreadsheets. All items of income and expenses were projected, as well as all items affecting cash flows. The models recognize the timing of benefit payments, premium income, expenses and other significant cash flow items.

Appropriate considerations in plan modeling to major plans include the following:

a. Type of coverage (nursing home, home health care, or both);
   Benefit period;
b. Presence (or absence) of automatic inflation benefit;
c. Level of premiums;
d. Issue age range; and,
e. Gender.

All of the above considerations were taken into account in determining the modeling for each individual.

Assumptions

L&E relied on Alaska personnel to provide a variety of information and data on the LTC insurance business in force. Although we did not independently verify nor audit this information supplied, we did review the information for reasonableness and consistency.

Alaska personnel supplied us with information regarding the gross premium rates, benefits, and coverage outlines for all of the LTC plans currently in force. The information was transmitted to us electronically.

Prior valuation studies were utilized when available and assumptions were validated against recent company experience. Future experience is based on projected future claim costs. Actual results will almost certainly differ from projected results. Each assumption utilized for completing the calculations is shown in detail in the remainder of this section.

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[i] We received premium and claim information through June 30, 2015. The actual policy census was from 5/22/2015. Since the Program is still issuing new policies we assumed that any policies that lapse between 5/22/2015 and the Valuation date of 6/30/2015 would be replaced with the same type of policy.

Loss ratios on Long Term Care business are typically quite low in the early durations, but increase significantly by policy duration and as the insured ages. Alaska's experience has been consistent with this pattern. The State of Alaska has established the Retiree LTC Insurance Fund to support future LTC liabilities. At June 30, 2015, the fund was approximately $388.8 million.

Except where the plan provides for an automatic increase in the claim costs, neither the claim costs nor gross premiums have been adjusted for possible future claims inflation.

Model Plans

The following model plans are listed with a brief description of each plan.

Benefit	**Benefit Summary by Plan Option**			
	Bronze	**Silver**	**Gold**	**Platinum**
Lifetime Max	$200,000*	$400,000	$300,000	$300,000
Inflation Protection	None	None	5% Simple to age 85	5% Compound to Age 85
Elimination Period	90 Day	90 Day	90 Day	90 Day
Benefit Trigger	2 of 5 ADLs	2 of 6 ADLs or CI	2 of 6 ADLs or CI	2 of 6 ADLs or CI
NH Daily Benefit	$125 in-state, $75 out-of-state	$200	$200	$200
ALF Daily Benefit	If approved	$150	$150	$150
HHC Daily Benefit	$75 in-state, $40 out-of-state	$125	$125	$125
Hospice Daily Benefit	Not covered	$125	$125	$125
Respite Benefit	Not covered	Up to $200 daily, 14 days per calendar year	Up to $200 daily, 14 days per calendar year	Up to $200 daily, 14 days per calendar year

**Although the benefit description booklet limits Home Health Care benefits to a lifetime maximum of $50,000, we understood that the State of Alaska has elected to expand HHC benefits up to the $200,000 lifetime maximum.*

Distribution

The following tables outline the distribution of business for the existing in-force:

Benefit Option	Lives	Distribution
Bronze	7,398	36.1%
Silver	9,421	37.8%
Gold	5,630	22.6%
Platinum	2,505	10.0%
Total	24,954	100.0%

Gender	Lives	Distribution
Female	13,105	52.5%
Male	11,849	47.5%
Total	24,955	100.0%

Issue Year *	Lives	Distribution
<1990	1,822	7.3%
1990-1994	2,466	9.9%
1995-1999	5,564	22.3%
2000-2004	4,367	17.5%
2005	852	3.4%
2006	849	3.4%
2007	993	4.0%
2008	972	3.9%
2009	893	3.6%
2010	1,010	4.0%
2011	1,166	4.7%
2012	1,138	4.6%
2013	1,284	5.1%
2014	1,223	4.9%
2015	355	1.4%
Total	24,954	100.0%

**The distribution by issues year prior to 2005 are not consistent with the prior valuation report of 5/31/2012. We are not certain of the reason for this discrepancy since we do not have access to the files from the prior valuation. We note that all of these policies are greater than duration 10. Therefore, they are assumed to have the ultimate lapse rate of 0.5% so we believe that the difference would not affect the projected results.*

Lapses

The lapse assumption reflects the expected portion of participants who terminate their policies each year by not paying the renewal premiums. Lapse assumptions can vary based on a wide variety of factors, including the participants' age at enrollment and the number of years participants have their policies. In general, it is assumed that the longer that participants keep their policies, the less likely they are to lapse. Lapse rate assumptions greatly affect long-term care insurance premiums because when individuals lapse, future liabilities are immediately reduced although current assets are not affected.

We noticed that the prior valuation used an ultimate lapse rate of 0.5%. We believe this is an appropriate ultimate lapse rate and therefore the lapse assumptions are consistent with the prior actuarial valuation.

Policy Year	Voluntary Lapse Rate
1	2.3%
2	1.2%
3	1.0%
4	0.9%
5	0.8%
6	0.7%
7	0.6%
8+	0.5%

Mortality Sex distinct 1994 GAM Table

Morbidity

For Long-Term Care insurance products, the substantial financial risks lie in morbidity assumptions. The morbidity assumptions reflect the amount of claim costs expected for participants. The key components driving claim costs are:

- Claim Incidence, which is the probability of going on claim
- Claim continuance, which is the length of time staying on claim, and
- Utilization, which is the level of claim payment.

It would be preferable to use the experience from the Alaska LTC Program. However, there have been less than 900 claims since the inception of the Program in 1987. Since this data is not fully credible the expected claim costs were developed from L&E's expected incidence rates and continuance tables and adjusted for State of Alaska's experience relative to L&E's expected costs.

Claim Reserve (Claims Payable)

The financial statements included a liability of claims payable. We calculated the claim liability by using the seriatim listing that was provided that contained Pending Claims as of the valuation date. We used this L&E continuance tables in order to calculate the present value of amounts not yet due (PVANYD). We were also provided pending claims for 2013 and 2014 and we used this information to test the Alaska LTC Program experience to this assumed continuance. There were only 274 open claims which limits the credibility of the experience. We also reviewed the overall experience of the Alaska LTC Program Experience by calendar year. This enabled us to develop an IBNR by selecting a targeted loss ratio for the most recent experience:

	Earned	Paid Claims			Total	Loss
Year	Premium	by Incurred Yr	PVANYD	IBNR	Incurred	Ratio
2004-2009			915	0		
2010	19,417	5,161	1,162	0	6,323	33%
2011	20,123	6,374	3,576	0	9,949	49%
2012	22,096	5,332	3,902	0	9,234	42%
2013	24,856	4,147	5,506	0	9,653	39%
2014	26,616	2,639	6,656	0	9,295	35%
2015	13,736	168	1,373	3,541	5,082	37%
			23,089	3,541		
			Total Claim Reserve:	26,630		

Fiscal Year	Claims Payable ($000)	Source
2013	16,822	Alaska
2014	21,612	Alaska
2015	26,630	L&E

Actual Experience to Projected Values

The Alaska LTC Program covers less than 25,000 lives. In addition, LTC experience fluctuates on several factors including demographics, the economy and access to facilities. We compared the prior valuation to recent experience:

Fiscal	Paid Claims		Actual -	
Year	Projected	Actual	Projected	Act/Proj
2013	7,335	9,672	2,337	131.9%
2014	8,426	12,800	4,374	151.9%
2015	9,517	9,390	(127)	98.7%

We do not have access to all of the claim assumptions that were used in the prior valuation and note that it is not unreasonable for an LTC Program of this size to experience variances of this magnitude.

In order to project the future experience we set our claim cost models to produce loss ratios that are similar to recent experience:

Fiscal	Claim	Claims		Loss
Year	Payable	Paid	Incurred*	Ratio
2013	16,822	9,672		38.8%
2014	21,616	12,800	17,594	34.9%
2015	26,630	9,390	14,404	37.0%
2016	24,178	14,058	11,606	43.4%
2017	22,599	14,563	12,984	49.9%
2018	22,161	14,939	14,502	57.2%
2013-2015 = Actual Experience				
2016-2018 = Projected Experience				
** Incurred = Paid Claims + Change in Claims Payable*				

The projected claims (which are used in the actuarial valuation) are somewhat greater than recent experience. The incurred loss ratios are consistent with recent experience.

Expenses

We reviewed the actual expenses provided in the financial statements. The administrative expenses have averaged 1.2% for fiscal years 2013 through 2015. Typical LTC insurance industry expense assumptions are significantly higher than this. We decided it would be appropriate to assume administration expenses of 1.5% of premium increasing by 1.5% per year.

Discount Rate

Assumes a level 5.0% earned interest rate.

The discount rate is a major component of the valuation process and is used to determine present values of the future premiums, expenses and benefits. We reviewed the Program investment returns during the last three fiscal years. We calculated investment returns of 6.2% in 2013, 11.5% in 2014 and 2.9% in 2015 based on investment income and the average balance of the fund at the beginning and end of each fiscal year. The discount rate assumed in the 2012 actuarial valuations was 5.0% which was based on the targeted return with the asset allocation at that time. Based on recent investment experience[ii], the prior valuation rate and input from the State of Alaska we selected a 5.0% earned rate for the LTC valuation. This rate was assumed for all future years of the projection.

[ii] According to information provided by State of Alaska the LTC Insurance fund has returned 2.81% for one year, 6.77% three year and 9.04% over five years.

Rate Increases

If the State of Alaska LTC Program has a deficit[iii] (liabilities in excess of assets) it can be recovered only through actuarial gains or increases in future premiums. The actuarial valuation does not support a premium adjustment at this time. It is important that the financial progress of the Program be monitored closely so that the State of Alaska can act quickly to adjust future premiums to maintain the Program's solvency.

Regarding all assumptions previously discussed, actual experience may differ from that assumed in the projections. To the extent actual experience is different from the assumptions underlying this report, so will actual results differ from the projected results shown here. Sensitivity of results to changes in assumptions is provided in the Sensitivity Analysis section.

[iii] Commercial LTC insurance programs are required to maintain statutory reserves and additional surplus. These two items could be another resource to mitigate rate increases.

IV. Sensitivity Analysis

We ran sensitivity tests to determine if the reported assets are sufficient with respect to morbidity, voluntary lapses, mortality, and investment earning. Results are highly sensitive to the assumptions underlying the calculations.

Sensitivity Results

($000)

Scenario	PV of Cash Flow	Assets	Sufficiency (Deficiency)
Base scenario	$(361,601)	$388,845	$27,240
Earned rate 4.5%	(413,902)	388,845	(25,506)
Increase morbidity by 3.5%	(384,071)	388,845	4,774
Increase morbidity by 5.0%	(393,701)	388,845	(4,856)
Voluntary lapse @ 150%	(337,950)	388,845	50,896
Voluntary lapse @ 50%	(387,011)	388,845	1,834
Mortality at 90%	(416,982)	388,845	(28,137)

Appendix A

State of Alaska LTC Program Actuarial Valuation
Summary of Yearly Cash Flows at 6/30/2015

Fiscal Year	Lives	Earned Premium	Expenses	Paid Claims	Incurred Claims	Loss Ratio
2016	24,295	26,711,609	400,674	14,058,107	11,605,615	43%
2017	23,634	26,020,845	396,167	14,563,094	12,984,451	50%
2018	22,958	25,346,757	391,693	14,939,376	14,501,776	57%
2019	22,266	24,664,932	386,874	15,085,986	16,174,829	66%
2020	21,555	23,971,310	381,634	17,592,218	18,009,604	75%
2021	20,827	23,264,036	375,930	17,332,571	20,017,862	86%
2022	20,080	22,541,176	369,712	19,269,738	22,209,035	99%
2023	19,315	21,801,073	362,937	21,383,242	24,588,625	113%
2024	18,532	21,042,164	355,558	23,674,251	27,150,460	129%
2025	17,732	20,263,346	347,534	26,144,038	29,889,106	148%
2026	16,919	19,465,500	338,858	28,796,871	32,810,607	169%
2027	16,093	18,649,641	329,525	31,622,985	35,895,874	192%
2028	15,257	17,817,035	319,536	34,614,019	39,130,606	220%
2029	14,415	16,969,279	308,897	37,739,511	42,462,202	250%
2030	13,568	16,108,288	297,622	40,991,466	45,884,317	285%
2031	12,720	15,236,281	285,733	44,313,330	49,312,115	324%
2032	11,875	14,355,847	273,260	47,677,440	52,713,849	367%
2033	11,036	13,470,078	260,246	51,042,886	56,060,011	416%
2034	10,208	12,582,544	246,745	54,344,413	59,253,065	471%
2035	9,394	11,697,246	232,825	57,514,537	62,212,679	532%
2036	8,598	10,818,528	218,565	60,480,741	64,851,438	599%
2037	7,825	9,951,000	204,054	63,204,693	67,156,589	675%
2038	7,079	9,099,537	189,393	65,567,059	68,973,704	758%
2039	6,364	8,269,158	174,691	67,559,755	70,350,172	851%
2040	5,682	7,464,855	160,065	69,105,816	71,219,100	954%
2041	5,038	6,691,436	145,634	70,123,458	71,442,262	1068%
2042	4,434	5,953,387	131,514	70,574,411	71,023,692	1193%
2043	3,872	5,254,797	117,823	70,440,782	69,972,712	1332%
2044	3,353	4,599,304	104,672	69,710,587	68,315,599	1485%
2045	2,879	3,989,995	92,168	68,370,700	66,074,448	1656%
2046	2,450	3,429,263	80,403	66,439,471	63,274,995	1845%
2047	2,066	2,918,676	69,458	63,946,938	59,959,376	2054%
2048	1,724	2,458,905	59,395	60,935,697	56,186,907	2285%
2049	1,425	2,049,703	50,253	57,475,031	52,064,201	2540%
2050	1,166	1,689,941	42,054	53,645,596	47,707,357	2823%
2051	943	1,377,666	34,797	49,528,237	43,206,451	3136%
2052	755	1,110,187	28,462	45,230,212	38,686,406	3485%
2053	598	884,176	23,008	40,829,905	34,200,928	3868%
2054	468	695,838	18,378	36,439,236	29,863,890	4292%
2055	362	541,085	14,505	32,148,151	25,768,567	4762%
2056	277	415,720	11,312	28,029,769	21,956,857	5282%
2057	210	315,602	8,716	24,149,267	18,479,238	5855%
2058	157	236,779	6,638	20,562,722	15,367,559	6490%
2059	117	175,592	4,996	17,317,421	12,651,230	7205%
2060	85	128,752	3,718	14,410,380	10,283,834	7987%
2061	62	93,381	2,737	11,865,462	8,279,489	8866%
2062	44	67,020	1,994	9,665,762	6,600,334	9848%
2063+	-	152,946	4,764	34,002,974	21,553,002	14092%
Total PV Future:		285,272,175	4,872,083	642,001,430		