



Drivers of Health Care Costs in Alaska and Comparison States

Prepared for:
Alaska Health Care Commission

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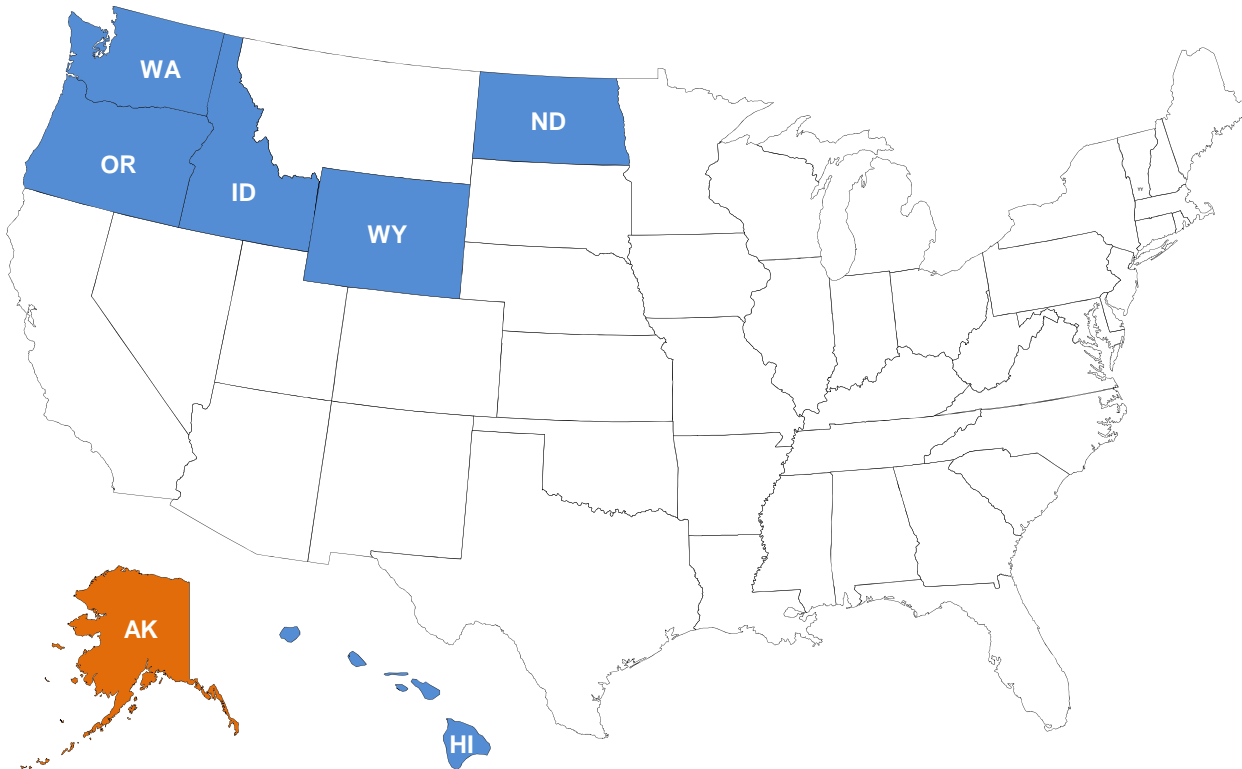
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1. EXECUTIVE SUMMARY

BACKGROUND

The Alaska Health Care Commission (“AHCC”) engaged Milliman to compare Alaska’s health care payment rates and underlying drivers to those in certain other states. The comparison states are Washington, Oregon, Idaho, Wyoming, and North Dakota. Hawaii was also included in the comparison states where practical. The comparison states were selected by the AHCC.



This report is the third of three reports. This report is focused on how Alaska’s health care costs and underlying drivers compare to other states. The first report analyzed physician payment rates in Alaska. The second report analyzed facility payment rates in Alaska.

The previous two reports indicated that Alaska’s reimbursement exceeds that in the comparison states for both physician and hospital services. Our analysis of the drivers behind those higher reimbursements suggests that some portion results from higher costs incurred by the providers. However, some component of the higher reimbursement is resulting in higher profit for private sector facilities in Alaska, particularly in the urban areas, and higher compensation for physician services relative to the overall cost of living. A brief summary of conclusions is presented below.

Our initial reports showed that the mean physician reimbursement from commercial payers in Alaska is approximately 169% of the average in the comparison states, and that across all payers, physician reimbursement is approximately 160% of the comparison state average. Similarly, commercial reimbursement for facilities in Alaska is approximately 137% of the average in the comparison states.

KEY CONCLUSIONS

- Commercial health care premiums in Alaska are approximately 130% of the average in the comparison states.
- Commercial hospital reimbursement is approximately 137% of the average in the comparison states.
- Average hospital costs are approximately 138% of the average in the comparison states.
- Hospital operating margins in Alaska were 13.4% on average in 2010, compared with 5.7% for the comparison states (or in other words, average hospital margins in Alaska are 233% of those in the comparison states). Margins for hospitals in rural areas were similar to the comparison states. Margins for hospitals in urban areas were 16.2%, driven largely by higher margins in two for-profit hospitals.
- Physician reimbursement in Alaska is approximately 160% of the average in the comparison states. Looking only at commercial payers, this increases to approximately 169%.
- Our analysis of discounts revealed that physicians have significant negotiating leverage relative to insurers in the State of Alaska relative to the comparison states.
- Salaries for health care professionals (excluding self-employed) are between 100% and 110% of those in the comparison states.
- Overall health care utilization rates for Medicare patients are similar to the comparison states. Utilization rates for commercial patients are similar to the comparison states for urban areas, but significantly higher in rural areas.

SUMMARY OF ANALYSES

Section 2 of this report shows that commercial premiums in Alaska are approximately 130% of the average in the comparison states. This is directionally consistent with the higher physician and facility costs, but is likely dampened somewhat by other elements of health care such as prescription drugs, which may have costs that are more similar to the comparison states.

The remaining report can be subdivided into two categories, utilization and unit cost. Sections 3 and 4 compare the utilization of health care services in Alaska against the comparison states. More efficient use of health care resources can offset higher unit costs. Our analyses found that urban areas in Alaska are similar to the comparison states in its resource utilization which makes it more efficient

than the nationwide average. Utilization in rural Alaska areas appears to be higher than in the comparison states. Utilization efficiency in rural areas is likely constrained by the delivery system and the relative lack of population density.

The remaining sections of the report focus on the cost per unit of service. On the hospital side, this can be further subdivided into the operating costs incurred by the facility (Section 5) and the profit margin (Section 6). Operating costs for hospitals in Alaska are approximately 138% of the average operating costs in the comparison states. This ratio increases to 186% when restricting to only the rural Alaska facilities. As a result, Alaska facilities have suffered higher losses from Medicare patients than in the comparison states. However, across all payers, average margins for Alaska facilities exceed those in the comparison states in each year of our analysis. The higher margins are driven primarily by two of the urban facilities, which have margins that are considerably higher than averages elsewhere in Alaska or the comparison states.

Sections 7 and 8 look at hospital occupancy rates and staffing ratios to explore contributors to the higher costs for Alaska facilities. Occupancy rates in Alaska are lower than the comparison states, particularly in the rural areas, consistent with the relationship between rurality and occupancy across the comparison states. As a result, there are fewer admissions over which to spread the fixed costs of operation, raising unit costs. Staffing ratios (measured as nurses per occupied bed) in Alaska are also higher than in the comparison states, further increasing costs.

Section 9 compares compensation for nurses and other employed health care professionals in Alaska against those in the comparison states. The analysis shows that salaries for nurses in Alaska are approximately 100% to 110% of those in the comparison states, as compared to the 160% ratio in commercial professional unit cost reimbursement. Similarly, Section 12 shows that the composite cost of living in Alaska is approximately 120% – 130% of the average in the comparison states excluding Hawaii.

Section 10 compares the relative availability of primary care by state. Approximately 12% of Alaska residents live in medically underserved areas. While this issue is a concern, it is not limited to Alaska, as the nationwide average is similar (and the percentage of medically underserved is higher in three of the six comparison states).

Section 11 compares negotiated discounts for commercial payers by state. Hospital discounts are similar to the comparison states (though the comparison states have a considerable range), but physician discounts are lower than each of the comparison states, which contributes to the higher reimbursement. We believe that the low discounts are indicative of physician negotiating leverage relative to the health plans, which is likely driven in turn by the relative scarcity of physicians (particularly specialists).

Overall, the higher commercial premiums in Alaska are being driven by higher unit costs, rather than by higher utilization of health care resources. The higher physician reimbursement is caused, at least in part, by the relative scarcity of providers. On the hospital side, higher reimbursement can be explained by higher facility costs in the rural areas, but is leading to higher profit margins in urban areas where the reimbursement in Alaska (relative to the comparison states) is greater than the relative cost.

This report did not review the relative quality of care provided to Alaskans, nor the relative health outcomes from treatment. Those issues were beyond the scope of our report but should be considered when evaluating the relative value of health care in Alaska.

2. COMMERCIAL HEALTH INSURANCE PREMIUMS

The level of a state’s commercial health insurance premiums is a key indicator of the level of its health insurance costs. In this section we compare the level of Alaska’s commercial health insurance premiums to the level in other states, and to the national average.

A. DETAILED RESULTS

Health insurance premiums are the amounts that health insurance companies charge individuals and businesses to pay for healthcare expenses. This section compares premiums that insurance companies in various states would have charged in 2010 to cover a typical company with 100 employees, for a Preferred Provider Organization (PPO) healthcare plan with specified benefits, including prescription drug coverage.

Data for the comparison of premiums in this section is from the Milliman 2010 Group Health Insurance Survey (see the sidebar). To learn more about how we compiled the premium data, see Section 2.B: Methodology.

Table 2A.1 below shows 2010 average commercial PPO premium levels for Alaska and the comparison states where there were 3 or more survey responses (states with fewer than 3 respondents are not included to preserve the confidentiality of respondents). The nationwide average premium shown in the table is the weighted average of premiums for all states with 3 or more survey responses, using census bureau data for persons under age 65 as the relative weight for each state.

For each state, the table shows monthly premiums for single employee coverage, family coverage and per member per month (PMPM). Results are shown relative to the average of the comparison states. Alaska’s PMPM premiums are approximately 130% of the comparison states’ average.

2010 Group Health Insurance Survey

Milliman conducts surveys of the premiums charged by the nation’s health insurers that serve the commercial large- or small-group markets. Over sixty health insurers participated in the Milliman 2010 Group Health Insurance Survey, the 17th edition, representing a total enrollment of about one hundred million members.

For the 2010 survey, respondents were asked to provide single employee, family, and per covered member premium rates for a specified group of 100 employees covered by a specified PPO plan, including prescription drug coverage as well as administrative costs and profit, but excluding broker commissions, with a July 1, 2010 renewal date.¹

¹ For more information about the survey, see www.milliman.com/news-events/press/pdfs/milliman-group-health-survey.pdf

Table 2A.1
Health Insurance PPO Premium Levels as a Percentage of the Comparison States' Average (2010)

State	Health insurance PPO premiums					
	Single employee coverage		Family coverage		Per member	
	Monthly amount	Relative to comparison state average	Monthly amount	Relative to comparison state average	Monthly amount	Relative to comparison state average
Idaho	\$486	91%	\$1,358	98%	\$451	95%
Washington	552	103%	1,413	102%	482	102%
Oregon	571	106%	1,406	101%	486	103%
Alaska	684	128%	1,817	130%	613	130%
Comparison State Average	\$536	100%	\$1,392	100%	\$473	100%
Nationwide Average	\$508		\$1,390		\$465	

In order to validate the results of the Milliman survey, we compared them to results obtained by the Agency for Healthcare Research and Quality (AHRQ) in their annual Medicare Expenditure Panel Survey (MEPS) for 2010. Results from MEPS are shown in Table 2A.2 and are similar to the Milliman survey results. MEPS showed that Alaska single-employee premiums were 126% of the comparison states' average, and family premiums were 110% of the average. These results include all six comparison states.² We suspect that the 110% value for families is driven by a different average family demographic in Alaska relative to the other states (e.g. fewer members per family), and we consider the 126% single-employee value to be the more meaningful value.

² For more information on the AHRP MEPS study, see <http://meps.ahrq.gov/mepsweb/>

Table 2A.2
Premium Levels from AHRQ as a Percentage of the Comparison States' Average (2010)

State	Health Insurance Premiums			
	Single employee coverage		Family coverage	
	Monthly amount	Relative to comparison state average	Monthly amount	Relative to comparison state average
Idaho	\$375	94%	\$948	88%
Hawaii	358	89%	1,005	93%
North Dakota	393	98%	1,045	97%
Oregon	432	108%	1,146	106%
Wyoming	434	108%	1,158	107%
Washington	415	103%	1,182	109%
Alaska	507	126%	1,186	110%
Comparison State Average	\$401	100%	\$1,081	100%
Nationwide Average	\$412		\$1,156	

B. METHODOLOGY

The 2010 Milliman *Group Health Insurance Survey* presents state-specific health insurance premiums for a specified PPO plan for 32 states.³

The Milliman *Group Health Insurance Survey* requires three responses before including states. For the state of Washington, PPO premium data was not directly available from the survey, because Milliman received only two relevant responses from Washington healthcare insurers. To supplement the two responses, we used the publicly-available small group PPO rate filing for July 1, 2010 from a large Washington health insurer that was not included in the survey. From this insurer, we used the rate filing for the plan that most closely matches the specified plan for the survey. To put this additional plan on a comparable basis with survey responses, we used Milliman’s *Health Cost Guidelines*TM to calculate the actuarial differential between the additional plan and the specified survey plan. We then adjusted the additional plan’s premium rates to reflect this differential. Lastly, we averaged three premium rates (two from the survey, and one from the additional plan) to obtain the Washington premiums to compare to other states. We calculated average PMPMs using the specified demographics and the single employee and family rates.

³ For more information about the survey, see www.milliman.com/news-events/press/pdfs/milliman-group-health-survey.pdf.

3. HEALTHCARE RESOURCE USE

A. DETAILED RESULTS

In this section, we compare the level of Alaska’s healthcare resource use and healthcare utilization to the levels in other states and to national averages.

In the US, there is wide variation from state to state in healthcare resource use and healthcare utilization. To compare healthcare resource use among the states, we employ a metric called “Adjusted Resource Use”. It is the amount of healthcare resources used by Medicare beneficiaries in a particular state, adjusted for demographics (including health status) and the relative cost of health care services so that states are directly comparable. To learn more about the metric, see Section 3B: Methodology.

Wide variation in healthcare resource use

As an illustration, consider the rate of hip replacements per 1,000 people. In 2005 – 2006, Bryan, Texas had the nation’s lowest rate—1.8 replacements per 1,000 Medicare beneficiaries—while Ogden, Utah had the nation’s highest rate—7.2, four times higher than in Bryan, Texas. During the same period, Anchorage had a rate of 3.6.

These results are from the Dartmouth Atlas Project.⁴

Table 3A.1 below shows the Adjusted Resource Use for Alaska and each comparison state during the period 2006 – 2008, both as a percent of the national average and relative to the comparison states’ average. Alaska’s Adjusted Resource Use is 87% of the national average, meaning that Alaska uses 13% fewer services than the nationwide average to treat a similar patient. The comparison states all have below average Adjusted Resource Use as well. Alaska’s Adjusted Resource Use is equal to the average of the comparison states.

**Table 3A.1
Healthcare Resource Use Among Medicare Beneficiaries (2006-2008)⁵**

State	Adjusted Resource Use (% of national average)	Adjusted Resource Use (relative to comparison states)
Hawaii	76%	87%
Oregon	86%	98%
Alaska	87%	100%
North Dakota	88%	101%
Washington	89%	102%
Idaho	92%	105%
Wyoming	94%	107%
Comparison States	87%	100%
Nationwide	100%	

⁴ Fisher, E. S., Bell, J.-E., Tomek, I. M., Esty, A. R., & Goodman, D. C. (2010). Trends and regional variation in hip, knee, and shoulder replacement A Dartmouth Atlas Surgery Report (pp. 24): The Dartmouth Institute for Health Policy & Clinical Practice.

⁵ Medicare Payment Advisory Commission (2011), www.medpac.gov/document_TOC.cfm?id=631

Tables 3A.2 and 3A.3 show how Alaska compares to other areas on key healthcare utilization metrics. The utilization results in Table 3A.2 are based on data from Milliman’s 2011 Commercial (i.e. Under Age 65) *Health Cost Guidelines*TM.

**Table 3A.2
Healthcare Utilization Results – Utilization per 1,000 (2011)**

State	Utilization per 1,000 people (2011)							
	Inpatient bed days		ER Visits		Office/home physician		Prescription Drug Scripts	
	Days	Relative to Comparison States	Visits	Relative to Comparison States	Visits	Relative to Comparison States	Scripts	Relative to Comparison States
Washington	202	87%	190	99%	2,828	104%	8,558	100%
Idaho	206	88%	205	106%	2,548	94%	9,034	105%
Oregon	206	88%	205	106%	2,800	103%	8,083	94%
Wyoming	237	102%	214	111%	2,744	101%	8,748	102%
Hawaii	266	114%	135	70%	2,884	106%	7,797	91%
North Dakota	283	121%	206	107%	2,492	92%	9,224	108%
Alaska - Anch/Frbnk/Mat-Su	193	82%	221	115%	2,772	102%	8,273	96%
Alaska - Non-MSA	467	200%	224	116%	2,884	106%	8,843	103%
Alaska	283	121%	221	115%	2,800	103%	8,463	99%
Comparison State Average	233	100%	193	100%	2,716	100%	8,574	100%
National Average	283		178		2,800		9,509	

Table 3A.2 shows that Alaska ranks high in inpatient bed days, and ER visits, which are major components of healthcare resource use. However, a closer look reveals the broad disparity between the urban and rural areas within Alaska. Claims are assigned to geographic areas in Table 3A.2 based on the member’s residence. Members in Alaska’s urban areas have significantly lower utilization rates than those in rural areas, particularly for inpatient days. This result is not surprising, since the rural areas may not have the health care delivery systems in place to discharge patients quickly. This problem is exacerbated since many rural members receive treatment far from home, particularly for more complex cases, making discharge more difficult.

**Table 3A.3
Healthcare Utilization Results – Surgical Replacements per 1,000 Medicare Enrollees (2005-2006)**

State	Region	Surgical replacements per 1,000 Medicare enrollees (2005-2006)		
		Hip	Knee	Shoulder
Alaska	Anchorage	3.6	9.3	0.9
Hawaii	Honolulu	1.9	4.1	0.4
Idaho	Boise	5.9	11.9	1.7
	Idaho Falls	5.4	12.5	N/A
North Dakota	Bismarck	5.8	13.6	1.4
	Fargo/Moorhead	5.6	12.5	1.0
	Grand Forks	6.3	11.3	N/A
	Minot	4.9	10.1	N/A
Oregon	Bend	5.5	9.5	1.7
	Eugene	4.4	8.1	0.6
	Medford	4.9	8.0	1.3
	Portland	4.7	8.3	0.8
	Salem	6.5	6.9	N/A
Washington	Everett	4.8	8.3	1.0
	Olympia	4.5	10.5	0.8
	Seattle	5.3	8.5	1.0
	Spokane	5.7	11.2	0.9
	Tacoma	4.8	9.0	0.8
	Yakima	3.6	9.9	1.1
Wyoming	Casper	4.4	12.9	1.5
Nationwide Average		4.0	8.8	0.8

Dartmouth Atlas of Health Care

The Dartmouth Atlas of Health Care is a well-known and respected series of reports about unwarranted variation in US healthcare service use (as well as in healthcare expenditures and quality) founded by Dr. Jack Wennberg. Over his forty-year career, Dr. Wennberg has thoroughly demonstrated that the amount of health care one receives in the US varies widely from state to state, city to city, hospital to hospital, and even doctor to doctor, for reasons often unrelated to demographics, health status, or good medical practice.

Dartmouth Atlas reports and articles have included studies of unwarranted variation in:

- Elective surgery
- End-of-life cancer care
- Chronic illness care
- Endoscopic sinus surgery
- Hip, knee, and shoulder replacement
- Prostate-specific antigen screening
- Carotid artery stenting
- Inpatient use of services during the last six months of life⁶

Table 3A.3 shows the frequency of surgical replacements for a number of procedures. Results shown in Table 3A.3 are taken from the Dartmouth Atlas project (see the sidebar).⁷

The number of hip replacements in Anchorage is lower than or equal to every region in the comparison states except Honolulu. The number of knee and shoulder replacements appear about equal to the comparison regions.

⁶ See www.dartmouthatlas.org/publications/reports.aspx and www.dartmouthatlas.org/publications/articles.aspx

⁷ Fisher, E. S., Bell, J.-E., Tomek, I. M., Esty, A. R., & Goodman, D. C. (2010). Trends and regional variation in hip, knee, and shoulder replacement A Dartmouth Atlas Surgery Report (pp. 22): The Dartmouth Institute for Health Policy & Clinical Practice.

B. METHODOLOGY

To compare healthcare resource use among states, we employed a metric called "Adjusted Resource Use". This metric was developed by the Medicare Payment Advisory Commission (MedPAC), in order to identify geographic variation in the volume and intensity of services that comparable Medicare beneficiaries use.⁸ MedPAC starts with fee-for-service Medicare expenditures for beneficiaries. It then adjusts the result to remove geographic variation in provider reimbursement levels, beneficiary health status, and beneficiary demographic characteristics.

The MedPAC report presents results for most states by Metropolitan Statistical Areas (MSAs). To obtain the Adjusted Resource Use for each comparison state, we weighted the MedPAC results for each of the MSAs in each state using the Census Bureau's count of people age 65 and over. For example, as shown in the following table, we calculated Washington's Adjusted Resource Use, expressed as a percentage of the national average, to be 89 percent. Note that some states, such as Alaska, were reported at the state level in the MedPAC report, and therefore no summarization was needed.

Table 3B.1
Calculation of the Washington Adjusted Resource Use as a Percent of the National Average

Metropolitan statistical area (MSA)	Adjusted Resource Use (percent of national average)	Population age 65 and over
Bellingham, WA	85	23,117
Bremerton-Silverdale, WA	85	28,979
Kennewick-Pasco-Richland, WA	88	22,651
Lewiston, ID-WA	83	3,797
Longview, WA	87	13,933
Mount Vernon-Anacortes, WA	94	16,942
Olympia, WA	84	28,059
Portland-Vancouver, OR-WA	85	43,027
Seattle-Bellevue-Everett, WA	90	265,880
Spokane, WA	91	55,894
Tacoma, WA	90	82,264
Wenatchee, WA	85	14,936
Yakima, WA	83	26,321
Non-MSA areas	<u>89</u>	<u>128,549</u>
Weighted average/total	89	754,349

⁸ MedPAC calls the metric "Medicare Service Use". For details about this metric, see Medicare Payment Advisory Commission (2011). The report is found at www.medpac.gov/document_TOC.cfm?id=631. Its Appendix B contains the Adjusted Resource Use for Medicare beneficiaries in each US Metropolitan Statistical Area (MSA) and in non-metropolitan areas, expressed as a percentage of the national average.

4. INPATIENT LENGTH-OF-STAY

A. DETAILED RESULTS

When trying to explain variations in health care costs for inpatient services, analyses typically focus on inpatient days (as we did in Section 3), rather than admissions, since facilities continue to incur costs for each day of a patient’s stay. However, it is also informative to disaggregate the utilization of inpatient days into the portions driven by admissions and by the average length of stay (LOS) per admission.

In order to create a valid comparison of LOS across states, we compared the actual average LOS in each state to a benchmark based on the nationwide average LOS by APR-DRG. The benchmark is adjusted for each state to reflect the mix of admissions. This methodology ensures that states are not penalized for having a greater percentage of higher severity cases, such as cardiology, while also ensuring that each state is evaluated based on a mix of cases appropriate to that state. For more information on how this metric is calculated, see Section 4B: Methodology.

Table 4A.1 shows the relative length of stay for urban (i.e. Anchorage, Fairbanks and Mat-Su) and rural areas within Alaska and for each of the comparison states.

**Table 4A.1
Inpatient Average LOS Relative to Benchmark for Medicare Beneficiaries (2009)⁹**

Region	Admits	Days	ALOS	Benchmark Days	Benchmark ALOS	Actual to Benchmark	Relative to Comparison State Average
Anchorage/Frbnks/Mat-Su, AK	9,617	50,189	5.2	50,558	5.3	0.99	112%
Non-MSA, AK	3,269	14,974	4.6	14,507	4.4	1.03	116%
Alaska	12,886	65,163	5.1	65,066	5.0	1.00	113%
Hawaii	21,793	142,018	6.5	118,056	5.4	1.20	135%
Idaho	34,011	145,842	4.3	176,881	5.2	0.82	93%
North Dakota	34,516	158,818	4.6	185,123	5.4	0.86	96%
Oregon	79,163	368,803	4.7	422,281	5.3	0.87	98%
Washington	178,270	833,226	4.7	952,459	5.3	0.87	98%
Wyoming	16,837	73,213	4.3	80,987	4.8	0.90	102%
Comparison State Average	364,590	1,721,920	4.7	1,935,787	5.3	0.89	100%
Nationwide Average	11,357,376	61,135,387	5.4	61,135,387	5.4	1.00	112%

⁹ Medicare Provider Analysis and Review (MedPAR) file (2010), https://www.cms.gov/IdentifiableDataFiles/05_MedicareProviderAnalysisandReviewFile.asp

This table shows that Alaska's LOS is 113% of the comparison state average after adjusting for case mix. It is higher than all of the comparison states except Hawaii. However, it is also interesting to note that the length of stay in Alaska relative to the benchmark is close to the nationwide average, which is 112% of the average in the comparison states.

We note that Table 4A.1 shows similar results for both urban and rural areas within Alaska, in contrast to the large difference in total bed days shown in Table 3A.2. This can be partly explained by a difference in methodology. Whereas Table 3A.2 allocated admissions to areas based on the member's location, Table 4A.1 is based on the location of the facility where the admission occurs. Therefore, admissions for members in rural areas who are being transported to facilities in Fairbanks and Anchorage are counted within the urban areas. To the extent that the lengths of stay for those admissions are higher than average (even for those facilities) due to either the lengthy travel required for those members to return home or the need to find adequate care upon returning, those additional days of stay are being attributed to those urban facilities.

B. METHODOLOGY

We used publicly available data from the 2010 Medicare Provider Analysis and Review (MedPAR) file. Data was restricted to include only short term acute care hospitals, including critical access hospitals and sole community hospitals and to include only Medicare FFS admissions (removing those that occurred in Medicare Advantage plans). We retained admissions for all hospitals in the data, including tribal health facilities.

Each admit was grouped to APR-DRG and severity level using 3M's All Payer Refined DRG grouper. For each APR-DRG and severity level, we calculated the nationwide average LOS. The nationwide average LOS for each APR-DRG and severity level was used as the benchmark. For each region, we then summed up the actual days of stay and the benchmark days. The relative LOS statistic was then calculated as the ratio of the actual days of stay to the benchmark days based on the region-specific case mix.

5. HOSPITAL OPERATING COSTS

Hospital operating costs have a significant impact on commercial reimbursement levels. Higher operating costs have a direct impact on commercial reimbursement, and lead to greater losses for Medicare and Medicaid patients, thus leading to even higher commercial reimbursement. In this section, we compare the level of Alaska’s non-federal hospital operating costs to the level in comparison states.

A. DETAILED RESULTS

Hospital operating costs are the expenses a hospital must pay to stay in business. They include staff wages and benefits; buildings, equipment, supplies, utilities and other items.

To measure relative hospital operating costs among the states, we employ a metric called the “Adjusted Hospital Costs per Relative Value Unit”. For a state, the Adjusted Hospital Costs per RVU is the average amount of total operating costs per RVU for all hospitals located within the state. The cost per RVU is shown with or without a geographic adjustment to level out differences among states in wages and capital costs. Because the metric reflects costs per resource unit, it levels out differences in patient and service mix.

For this metric, operating costs are the expenses hospitals report to the Centers for Medicare and Medicaid Services (CMS) as part of the annual Medicare Cost Reports (see the sidebar), and “relative value units” for healthcare services are determined with the Milliman *RBRVS for Hospitals*TM. For a complete description of the way we calculated this metric, see Section 5B: Methodology.

Because tribal hospitals and government hospitals (i.e. military and VA) do not file cost reports in the same manner as other facilities, they are excluded from this analysis. The tribal health system is unique to Alaska and therefore, comparing costs at those facilities against acute care facilities in the other states would not necessarily be an appropriate comparison even if cost information were available.

Table 5A.1 reports payment levels relative to the cost per RVU weighted average in the six comparison states. For example, it shows that the Alaska total non-federal hospital operating cost is 138% of the average in the six comparison states. As with other analyses, there is a considerable difference in the costs for facilities in urban areas compared with rural areas. At least some of this difference can be attributed to the higher costs of living in more rural areas of Alaska, as well as necessary inefficiencies resulting from the operation of smaller facilities.

Medicare Cost Reports

Every year, each non-federal hospital that treats Medicare patients provides an extensive financial report, called the Medicare Cost Report, to the Centers for Medicare and Medicaid Services (CMS). In the report, the hospital provides data about its billed charges, operating expenses, net income, patient visits, and patient mix. A report is typically several hundred pages long.

The Medicare Cost Reports are publicly available through CMS.

To develop the Adjusted Hospital Costs per RVU for each hospital, we extracted the ratio of operating costs to billed charges by department.

Table 5A.1
Cost per RVU Relative to the Comparison State Average

Region	Inpatient Average	Outpatient Average	Total Average
Anchrg/Frbanks/Mat-Su, AK	132%	114%	129%
Non-MSA Area, AK	182%	202%	186%
AK	137%	139%	138%
HI	95%	99%	97%
ID	92%	89%	90%
ND	73%	79%	74%
OR	109%	104%	107%
WA	103%	106%	104%
WY	109%	110%	110%
Comparison States	100%	100%	100%

Table 5A.2 is similar to table 5A.1, but adjusts costs to reflect anticipated differences in input costs based on the geographic adjustment factors that Medicare uses for Inpatient Prospective Payment System (IPPS) and Outpatient Prospective Payment System (OPPS) hospital payments, including the Wage Index and Capital Geographic Adjustment Factor. Table 5A.2 is included for informational purposes only; our analysis focuses primarily on Table 5A.1 since it is consistent with other analyses in this report which do not reflect geographic differences in Medicare payment. Relative to Table 5A.1, the costs for Alaska are lower in Table 5A.2.

Table 5A.2
Geographically Adjusted Cost per RVU Relative to the Comparison State Average

Region	Inpatient Average	Outpatient Average	Total Average
Anchrg/Frbanks/Mat-Su, AK	122%	108%	120%
Non-MSA Area, AK	168%	161%	160%
AK	127%	124%	126%
HI	89%	95%	91%
ID	102%	93%	98%
ND	88%	86%	87%
OR	105%	101%	104%
WA	100%	104%	101%
WY	119%	114%	118%
Comparison States	100%	100%	100%

Table 5A.3 presents results by state and type of hospital – either paid by OPPS or not. We divided hospitals into two categories based on whether Medicare pays outpatient services based on OPPS. This was a convenient attribute for us to use to split the data since our data source for Medicare outpatient services was split between OPPS and non-OPPS facilities. It also nicely defines a split between hospitals that are generally paid on a cost-related basis (non-OPPS) versus a prospective payment, fee schedule basis (OPPS).

**Table 5A.3
Geographically Adjusted Cost per RVU**

Region	OPPS Facilities		Non-OPPS Facilities		Ratio: Non-OPPS / OPPS
	# of Facilities	Total	# of Facilities	Total	
Anchrg/Frbanks/Mat-Su, AK	4	\$55	2	\$44	0.81
Non-MSA Area, AK	2	\$50	11	\$86	1.72
AK	6	\$55	13	\$65	1.20
HI	14	\$41	10	\$53	1.30
ID	16	\$44	25	\$50	1.13
ND	8	\$38	33	\$49	1.26
OR	33	\$47	18	\$53	1.13
WA	49	\$46	27	\$39	0.83
WY	13	\$53	15	\$58	1.10
Comparison States	133	\$45	128	\$48	1.05

Table 5A.3 shows that operating costs tend to be higher for hospitals that are paid on a cost-basis compared to those reimbursed under OPPS. Part of the differential is likely driven by the higher cost of living in rural Alaska areas and also by efficiencies lost by needing to maintain access to services for a much more variable patient load. The cost level may also be influenced by the Medicare payment system; facilities that are reimbursed on a cost basis have less incentive to reduce costs than those paid on a fixed fee schedule. While the higher costs for Medicare patients are reimbursed by Medicare, the higher costs incurred in the treatment of Medicaid and commercial patients will be passed along to payers in Alaska.

B. METHODOLOGY

The following table illustrates how we calculated Adjusted Hospital Costs per RVU for each hospital (including the geographic adjustment). The total within each state (and across the comparison states) was calculated by dividing the total adjusted costs across all facilities in each state by the total RVUs in that state.

Table 5B.1
Illustration of Adjusted Hospital Costs per RVU calculation

Medicare claim codes for state A	Billed amount	Ratio of costs to billed amounts	Geographic adjustment factor	Adjusted costs	Relative value unit	Adjusted hospital costs per RVU
Service 1	B_1	R_A	G_A	$AC_1 = (B_1 * R_A) / G_A$	RVU_1	
Service 2	B_2	R_A	G_A	$AC_2 = (B_2 * R_A) / G_A$	RVU_2	
...	
Service n	B_n	R_A	G_A	$AC_n = (B_n * R_A) / G_A$	RVU_3	
Total				$\sum_n AC_i$	$\sum_n RVU_i$	$\frac{\sum_n AC_i}{\sum_n RVU_i}$

The inpatient results are based on analysis of the publicly available 2009 Medicare Provider Analysis and Review (MedPAR) file. The outpatient results are based on analysis of the publicly available 2009 Medicare OPPS data and the publicly available 2009 Medicare Standard Analytic File 5% Sample (5% Sample)¹⁰. The OPPS data only includes data on services paid under OPPS. We used the 5% Sample data to supplement the OPPS data set, in order to include results for Critical Access hospitals and other hospitals not paid on OPPS. We defined the split of OPPS/non-OPPS on whether a hospital’s provider ID appeared in the OPPS data set.

The 5% Sample, not surprisingly, includes data for 5% of Medicare fee-for-service beneficiaries. In order to combine the Medicare outpatient results obtained from the 5% sample with those from the OPPS data (which is a 100% sample), we multiplied the 5% Sample results by a weighing factor of 20 (5% x 20 = 100%).

For each hospital, we used the cost-to-charge ratio from the CMS 2009 Medicare Inpatient Provider Specific (IPPSF) file¹¹ when available, and otherwise directly from 2009 Medicare Cost Reports.¹² Next, for each hospital we adjusted its operating cost amounts for geographic differences in staff wages and capital costs using the CMS 2009 Medicare Wage Index and Capital Geographic Adjustment factors.¹³ We then calculated an adjusted cost amount for each service, as the billed amount times the cost-to-charge ratio, divided by the geographic adjustment factor.

¹⁰ All data sources are publicly-available through CMS. For information about OPPS data, see www.cms.gov/LimitedDataSets/06_HospitalOPPS.asp.

For MedPAR, see www.cms.gov/IdentifiableDataFiles/05_MedicareProviderAnalysisandReviewFile.asp.

For the 5% Sample, see https://www.cms.gov/LimitedDataSets/12_StandardAnalyticalFiles.asp

¹¹ IPPSF data is publicly available through CMS. For information about this data source, see www.cms.gov/AcuteInpatientPPS/FFD.

¹² Medicare Cost Reports are publicly available through CMS. For information about them, see www.cms.gov/CostReports.

¹³ For information about the Medicare Wage Index and Capital Geographic Adjustment factors, see www.cms.gov/AcuteInpatientPPS/03_wageindex.asp#TopOfPage.

The following table shows the relative geographic adjustments by service type.

**Table 5C.1
Geographic Adjustment Factors**

State	Geographic Adjustment Factor	
	IP	OP
North Dakota	0.832	0.888
Idaho	0.901	0.942
Wyoming	0.932	0.958
Oregon	1.049	1.033
Washington	1.056	1.040
Hawaii	1.076	1.051
Alaska	1.102	1.065
Nationwide	1.000	1.000

We assigned Milliman *RBRVS for Hospitals*[™] RVUs to both the inpatient and outpatient claims data. Lastly, we divided the sum of adjusted cost amounts by the sum of RVUs. We did this for the total of all hospital services, as well as separately for inpatient and outpatient services. The total cost amount divided by the total RVUs results in a conversion factor. The application of the RVUs provides the case-mix and severity adjustment, such that the conversion factors can be compared directly at whatever level of aggregation is desired.

6. HOSPITAL MARGINS

This section compares the level of Alaska’s non-federal hospital margins to the level in other states, and to the national average. Higher margins contribute to higher commercial reimbursement levels and higher commercial premiums.

A. DETAILED RESULTS

A hospital margin is its gain or loss divided by revenue, for a particular time period. We developed hospital margins from data in the Medicare Cost Reports (see the sidebar about Medicare Cost Reports in the previous section). For details about the methodology we used to determine this metric, see Section 6B: Methodology.

The table below shows the average non-federal hospital margins for Alaska and each comparison state for the period 2008 – 2010. The All Payer margins are calculated for all patients, including Medicare. Medicare operating margins are also shown separately. In order to compare to the Medicare operating margin, the All Payer Operating Margin is approximated by removing investment income and contributions from the All Payer Total Margin.

The average All Payer margin for non-federal hospitals in Alaska is approximately 13.8%, compared to 6.9% in the comparison states in 2010. This means that the Alaska margin for non-federal hospitals is 6.9 percentage points higher than the comparison state average, or stated differently, that the average margin in Alaska is 200% of that in the comparison states. When restricting to operating margins for all payers, the average margin in Alaska is approximately 7.7 percentage points higher than the average in the comparison states (13.4% in Alaska vs 5.7% in the comparison states, meaning that All Payer operating margins in Alaska are 233% of those in the comparison states). For Medicare patients, the operating margin is more negative (by 2.6 percentage points) than the comparison state average (-11.5% vs. -8.9%). As demonstrated in the attached exhibits, the margins vary considerably across facilities.

Medicare cost shifting

In many states, Medicare hospital reimbursements do not fully cover the costs of treating Medicare patients, and thus lead to hospital operating losses. Hospitals often cover these losses by negotiating higher reimbursements from other payers, such as from health insurers covering employer populations. This phenomenon is called Medicare “cost shifting”.

A similar phenomenon occurs with Medicaid reimbursements, and is called Medicaid cost shifting.

Such markedly negative Medicare margins in Alaska cause upward pressure on commercial premiums, in order to offset hospital losses from Medicare business. This phenomenon is called “Medicare cost shifting”.

**Table 6A.1
All Payer and Medicare Hospital Margins (2008-2010)**

Region	FY10 Number of Hospitals	All Payer Total Margin			All Payer Approximate Operating Margin			Medicare Operating Margin		
		2008	2009	2010	2008	2009	2010	2008	2009	2010
Anchrg / Frbnks / Mat-Su, AK	4	9.9%	12.7%	16.5%	11.5%	13.4%	16.2%	-18.4%	-18.1%	-9.1%
Non-MSA Area, AK	12	5.8%	5.4%	6.8%	5.4%	5.2%	6.1%	-20.6%	-17.8%	-17.4%
AK	16	8.8%	10.7%	13.8%	9.8%	11.2%	13.4%	-19.0%	-18.0%	-11.5%
HI	24	1.0%	-2.0%	4.7%	-1.3%	-2.7%	3.4%	-11.8%	-8.3%	-2.7%
ID	40	6.9%	6.9%	7.8%	5.8%	6.8%	6.1%	-15.1%	-9.4%	-9.2%
ND	41	-0.7%	2.2%	5.4%	-0.6%	2.1%	4.0%	-5.6%	-0.6%	-1.7%
OR	56	2.8%	4.1%	7.5%	2.9%	3.7%	6.1%	-13.9%	-11.5%	-10.5%
WA	87	4.4%	6.1%	6.7%	4.2%	4.9%	5.8%	-9.9%	-9.5%	-9.9%
WY	27	8.0%	3.7%	10.9%	6.5%	2.6%	9.4%	-20.1%	-21.6%	-10.8%
Comparison State Average	275	3.7%	4.6%	6.9%	3.3%	3.9%	5.7%	-11.5%	-9.6%	-8.9%
Nationwide Average	4,135	1.9%	4.4%	6.3%	1.5%	3.8%	5.3%	-5.3%	-3.3%	-2.1%
Ratio of Margins (AK / Comparison States)		239%	232%	200%	297%	289%	233%	166%	187%	129%

Anchrg / Frbnks / Mat-Su, AK										
Alaska Regional Hospital		21.3%	26.8%	29.5%	21.3%	26.7%	29.4%	-14.8%	-15.3%	-10.0%
Fairbanks Memorial Hospital		4.3%	7.3%	5.0%	4.1%	7.1%	4.8%	-47.5%	-19.8%	-13.2%
Mat-Su Regional Medical Center		21.1%	24.4%	25.8%	21.1%	24.4%	25.8%	2.6%	-0.2%	4.0%
Providence Alaska Medical Center		4.7%	6.4%	13.7%	8.0%	7.9%	13.0%	-17.6%	-23.4%	-10.9%
Non-MSA Area, AK										
Bartlett Regional Hospital		3.6%	6.2%	7.3%	2.5%	5.3%	6.5%	-22.4%	-22.1%	-26.5%
Central Peninsula General Hospital		2.2%	2.4%	2.7%	2.2%	2.4%	2.7%	-26.4%	-22.1%	-15.4%
Cordova Community Medical Center		1.7%	4.6%	-2.9%	1.7%	4.6%	-9.2%	-22.5%	-22.8%	-14.6%
Ketchikan General Hospital		1.2%	2.6%	8.9%	1.2%	2.6%	6.4%	-14.3%	-11.2%	-13.6%
Norton Sound Regional Hospital		20.7%	13.2%	13.8%	20.2%	12.8%	13.1%	1.0%	1.0%	1.0%
Petersburg Medical Center		6.4%	-4.3%	2.6%	5.3%	2.0%	2.6%	-34.0%	-30.3%	-23.2%
Providence Kodiak Island Medical Ctr		11.5%	7.3%	4.8%	11.4%	7.2%	4.8%	-13.7%	-9.5%	-16.4%
Providence Seward Hospital		-7.6%	1.4%	12.2%	-8.0%	1.4%	12.2%	-33.9%	-20.6%	-27.9%
Providence Valdez Medical Center		-14.2%	-1.2%	-0.8%	-14.6%	-1.2%	-0.8%	-41.3%	-33.1%	-32.9%
Sitka Community Hospital		-2.0%	-4.4%	6.2%	-2.0%	-4.4%	6.2%	-20.9%	-21.1%	-18.3%
South Peninsula Hospital		3.3%	7.3%	3.9%	1.9%	5.3%	3.6%	-9.2%	-7.8%	-9.8%
Wrangell Medical Center		1.7%	13.9%	6.2%	1.4%	13.9%	6.2%	-16.2%	-20.8%	-26.2%

Notes:

- 1) Based on Medicare Cost Reports.
- 2) All Payer Approximate Operating Margin removes investment income and contributions from the All Payer Total Margin.
- 3) Medicare values based on cost report allocation process and Medicare allowed costs. This typically leads to better margins than if all costs are included and allocated by LOB.

Separating results in Alaska into the urban and rural areas reveals that the higher margins in Alaska are caused mostly by the urban areas. Margins in the rural areas are similar to those in the comparison states and nationwide. However, margins in the urban areas are significantly higher than elsewhere. Even within the urban areas, there is considerable variance in the margins by hospital. The higher average margin for urban Alaska facilities can be largely explained by high margins at two for-profit facilities (Alaska Regional Hospital and Mat-Su Regional Medical Center).

It is important to remember that hospital margins have a leveraged effect on commercial reimbursement. Since payment from Medicare is on a fixed fee schedule (or fixed percent of cost), a 1% increase or decrease in commercial reimbursement will lead to a smaller change in a hospital's total operating margin.

The negative Medicare margins in the non-MSA areas were a somewhat surprising result. Many of these facilities are critical access facilities and therefore are reimbursed at a rate 1% above cost for inpatient and outpatient services. A closer examination of these cost reports revealed that the losses were being incurred on swing-bed skilled nursing services.

B. METHODOLOGY

For this report, we define hospital margin as a hospital's revenue minus expenses divided by revenue, for a particular period of time. To calculate the hospital total margin (for revenue and expenses related to all patients) and the Medicare operating margin (for Medicare patients only) for each state, we used data from the Medicare Cost Reports.

The following table shows how we calculated the 2010 margins for Alaska and the comparison states. The dollar amounts in the table are aggregate amounts for all hospitals in the state. As the table shows, margins are equal to income divided by net revenue.

Table 6B.1
Calculation of the Hospital Total Margin and Medicare Margin for Alaska and Comparison States (2010)
(dollar amounts in millions)

Region	FY10 Number of Hospitals	All Payer						Medicare				
		A Total Net Revenue	B Total Expenses	C=A-B Total Income	D=C/A Total Margin	E Contributions	F Investments	G = (C-E-F)/(A-E-F) Approximate Operating Margin	H Operating Revenue	I Operating Expenses	J=H-I Operating Income	K=J/H Operating Margin
Anchrg / Frbnks / Mat-Su, AK	4	1,208	1,009	199	16.5%	0	5	16.2%	184	201	(17)	-9.1%
Non-MSA Area, AK	12	463	431	32	6.8%	0	3	6.1%	73	86	(13)	-17.4%
AK	16	1,671	1,440	231	13.8%	1	8	13.4%	257	287	(29)	-11.5%
HI	24	2,826	2,693	132	4.7%	14	24	3.4%	443	454	(12)	-2.7%
ID	40	3,160	2,914	246	7.8%	14	42	6.1%	617	674	(57)	-9.2%
ND	41	2,088	1,976	113	5.4%	3	27	4.0%	510	519	(8)	-1.7%
OR	56	8,478	7,841	637	7.5%	8	120	6.1%	1,440	1,592	(152)	-10.5%
WA	87	15,977	14,908	1,069	6.7%	39	108	5.8%	3,150	3,462	(312)	-9.9%
WY	27	1,380	1,230	151	10.9%	7	17	9.4%	291	322	(31)	-10.8%
Comparison State Average	275	33,908	31,560	2,348	6.9%	85	338	5.7%	6,451	7,023	(572)	-8.9%
Nationwide Average	4,135	667,210	625,210	42,000	6.3%	1,431	5,825	5.3%	153,408	156,671	(3,263)	-2.1%
Anchrg / Frbnks / Mat-Su, AK												
Alaska Regional Hospital		207	146	61	29.5%	0	0	29.4%	32	35	(3)	-10.0%
Fairbanks Memorial Hospital		217	206	11	5.0%	0	0	4.8%	33	37	(4)	-13.2%
Mat-Su Regional Medical Center		169	125	44	25.8%	0	0	25.8%	25	24	1	4.0%
Providence Alaska Medical Center		615	531	84	13.7%	0	4	13.0%	95	105	(10)	-10.9%
Non-MSA Area, AK												
Bartlett Regional Hospital		78	72	6	7.3%	0	1	6.5%	10	13	(3)	-26.5%
Central Peninsula General Hospital		98	96	3	2.7%	0	0	2.7%	19	22	(3)	-15.4%
Cordova Community Medical Center		8	8	(0)	-2.9%	0	0	-9.2%	1	1	(0)	-14.6%
Ketchikan General Hospital		65	60	6	8.9%	0	2	6.4%	10	11	(1)	-13.6%
Norton Sound Regional Hospital		77	66	11	13.8%	0	1	13.1%	3	3	0	1.0%
Petersburg Medical Center		10	10	0	2.6%	0	0	2.6%	2	3	(0)	-23.2%
Providence Kodiak Island Medical Ctr		36	35	2	4.8%	0	0	4.8%	6	7	(1)	-16.4%
Providence Seward Hospital		18	16	2	12.2%	0	0	12.2%	2	3	(1)	-27.9%
Providence Valdez Medical Center		11	11	(0)	-0.8%	0	0	-0.8%	3	4	(1)	-32.9%
Sitka Community Hospital		19	18	1	6.2%	0	0	6.2%	5	6	(1)	-18.3%
South Peninsula Hospital		35	33	1	3.9%	0	0	3.6%	9	10	(1)	-9.8%
Wrangell Medical Center		8	8	1	6.2%	0	0	6.2%	2	3	(1)	-26.2%

Notes:

- 1) Based on Medicare Cost Reports.
- 2) All Payer Approximate Operating Margin removes investment income and contributions from the All Payer Total Margin.
- 3) Medicare values based on cost report allocation process and Medicare allowed costs. This typically leads to better margins than if all costs are included and allocated by LOB.

For total margins, we extracted total revenue and total expenses from the G series of the Medicare Cost Reports. These results include both operating and non-operating revenue and expense amounts. An approximate All Payer Operating Margin is calculated by removing investment income and contributions from the All Payer Total Margin.

For the Medicare margins, to obtain Medicare revenue amounts we extracted Medicare allowed amounts reported in the E series of the Medicare Cost Reports, and we obtained Medicare expenses from the D series. These are operating revenue and expenses, and do not include non-operating income and expenses. The Medicare expenses are limited to Medicare allowable expenses (e.g. excluding physician practice expenses and other items not allowed by Medicare). Thus, the financial basis of the two margins is different.

Since the margin analysis is based on Medicare Cost Reports, federal government facilities are excluded from the analysis as are all but one tribal health facility.

7. OCCUPANCY RATES

A. DETAILED RESULTS

The number of occupied bed days divided by total bed days for a hospital is called the occupancy rate. These rates show the percent of staffed beds that are occupied, as reported by the Medicare cost reports. For more information on the Medicare cost reports, see the sidebar in Section 5A.

Higher occupancy rates will lead to lower costs per admission and higher margins. The expenses of the building and equipment will not vary as the occupancy rate fluctuates, but the revenue earned from occupied beds will help to offset those expenses. Table 7A.1 below shows the occupancy rates for Alaska and the comparison states from 2008 to 2010. The table includes only acute care hospitals (including critical access facilities) but includes sub-providers (i.e. psych and rehab units) within those facilities.

**Table 7A.1
Occupancy Rates for Alaska and Comparison States (2008-2010)**

Region	FY10 Number of Hospitals	Total		
		2008	2009	2010
Anchrg / Frbnks / Mat-Su, AK	4	55.5%	53.7%	53.6%
Non-MSA Area, AK	12	39.4%	38.4%	38.8%
AK	16	51.3%	49.5%	49.9%
HI	24	67.8%	64.2%	62.4%
ID	40	48.8%	46.6%	45.9%
ND	41	49.9%	48.8%	49.5%
OR	58	62.3%	61.4%	60.2%
WA	87	65.7%	64.3%	62.9%
WY	27	43.0%	41.3%	39.1%
Comparison State Average	277	60.6%	59.1%	58.1%
Nationwide Average	4,318	62.2%	61.2%	60.2%

Alaska’s average occupancy rate for all providers was 49.9% in 2010, lower than the 58.1% average for the comparison states (which was in turn slightly below the nationwide average). The 58.1% average was calculated by summing total occupied bed days in comparison states and dividing by total available bed days in those states, so states with more bed days, like Washington, have more weight. Comparison state total rates range from 39.1% to 62.9%, with higher occupancy rates in the more densely populated states. In general, we expect to see higher occupancy rates in larger facilities (which typically coincide with urban settings) since those facilities should have more stable inpatient demand and therefore, would require less of a buffer in order to accommodate periods of high demand.

The Anchorage and Fairbanks areas have a significantly higher occupancy rate than the non-MSA areas, consistent with the higher occupancy rates in more densely populated states.

B. METHODOLOGY

For this report, we define occupancy rate as a hospital’s occupied bed days divided by their available bed days, for a particular period of time. To calculate the rates for each state, we used data from the Medicare Cost Reports.

The following table shows how we calculated the 2010 occupancy rates for Alaska and the comparison states. The amounts in the table are aggregate amounts for all hospitals in the state that completed Medicare cost reports. Of note, as with other analyses based on the cost reports, federal government and tribal health hospitals are excluded.

**Table 7B.1
Calculation of Occupancy Rates for Alaska and Comparison States (2010)**

Region	FY10 Number of Hospitals	Total		
		A Available Bed Days	B Occupied Bed Days	C=B/A Occupancy Rate
Anchrg / Frbnks / Mat-Su, AK	4	271,375	145,365	53.6%
Non-MSA Area, AK	12	91,250	35,442	38.8%
AK	16	362,625	180,807	49.9%
HI	24	913,830	569,977	62.4%
ID	40	1,021,657	469,429	45.9%
ND	41	763,341	377,998	49.5%
OR	58	2,344,186	1,412,196	60.2%
WA	87	3,874,019	2,438,222	62.9%
WY	27	467,660	182,822	39.1%
Comparison State Average	277	9,384,693	5,450,644	58.1%
Nationwide Average	4,318	244,628,574	147,354,738	60.2%

8. STAFFING RATIOS

A. DETAILED RESULTS

A significant component of facility operating costs is the number of nurses per hospital bed. In this section we compare Alaska's staffing ratios to the level in the comparison states.

Staffing ratios are a measure of the number of full time equivalent (FTE) professional staff in a hospital relative to the size of the facility. The number of staff for a given hospital is divided by the number of occupied beds for the hospital, resulting in a ratio that is comparable across hospitals and across states. For example, a nurse ratio of 2.0 indicates that on average, each bed is staffed by two nurses. This does not imply that there are two nurses on duty per bed at any given time. The nurse count is based on FTEs (where "full time" represents a typical work week) but hospitals are open at all times and therefore, require multiple FTEs per occupied bed.

Data for the staffing ratios in this section are from the CMS Provider of Services file from the second quarter of 2011¹⁴ (the most recently available data period at the time to the analysis). To learn more about how we calculated the staffing ratios, see Section 8B: Methodology.

Table 8A.1 below shows 2011 FTE registered nurse staffing ratios for Alaska and the comparison states. Overall, Alaska's ratio of registered nurses per occupied bed is 129% of the ratio in the comparison states, though the ratio is similar to that in four of the six comparison states. Staffing ratios for the comparison states range widely from 1.67 (Washington) to 2.90 (Wyoming). Within Alaska, staffing ratios are fairly similar between urban and rural areas. We note however, that when comparing staffing ratios per bed (regardless of occupancy) the lower occupancy rates in the rural areas lead to a lower staffing ratio per bed.

We are not aware of a broadly accepted consensus on the ideal staffing ratio. Higher staffing ratios may lead to higher quality care (up to a certain point), but also lead to higher costs. Therefore, our analysis should not be used to conclude that Alaska's staffing ratio should be reduced to that of the comparison states. However, we can state that the higher staffing ratio adds to the higher facility costs in Alaska.

¹⁴ For more information on this file, see https://www.cms.gov/nonidentifiabledatafiles/04_providerofservicesfile.asp

Table 8A.1
FTE Registered Nurses per Occupied Bed (2nd Quarter of 2011Q2)

State	FTE Registered Nurses Per Occupied Bed	
	Ratio	Relative to comparison state average
Anchrg/Frbnks/Mat-Su, AK	2.74	136%
Non-MSA, AK	2.34	116%
Alaska	2.59	129%
Hawaii	2.47	122%
Idaho	2.70	134%
North Dakota	1.69	84%
Oregon	2.26	112%
Washington	1.67	83%
Wyoming	2.90	144%
Comparison State Average	2.01	100%

B. METHODOLOGY

The Provider of Services (POS) file is a publicly available file from CMS that contains data on providers. The file is updated quarterly and contains information such as type of hospital, staffing, beds, and services offered by each Medicare-approved provider. For this analysis, we used the latest version of the file, updated through the second quarter of 2011. This file includes all types of facilities (including tribal health and federal government facilities). We estimated occupancy rates for facilities that did not report that information using the statewide average occupancy rate (or the averages by MSA within Alaska).

After calculating the ratio of nurses to total beds for each area, we divided this ratio by the occupancy rate discussed in Section 7 of this report. Since the occupancy rate is the number of occupied beds divided by total beds, this results in the number of nurses per occupied bed.

9. PROFESSIONAL SALARIES

A. DETAILED RESULTS

Professional salaries are a significant driver of health care costs for both professional and facility services. We have summarized statistics on annual base salary from both a Milliman salary survey and data from the Bureau of Labor and Statistics (BLS) for several health care jobs.

Milliman data are compiled from salary survey responses in Alaska, Idaho, Oregon, and Washington. Comparable information is not available for Wyoming, North Dakota or Hawaii and therefore, those states are excluded from this analysis.

In Table 9A.1, the “Number of Firms” statistic represents how many responding companies surveyed employed that occupation. The “Number of Employees” is the total number of people with that occupation across all respondents. The “Average” is a straight average across companies. “Weighted Average” is weighted by number of employees in the position, so larger companies have a larger weight. We have also reported various percentile estimates based on the survey responses.

Over half of the employees represented by the surveys are Registered Nurses (RNs). The results show that Alaska’s RNs are paid approximately the same amount as RNs in the Pacific Northwest states. The other occupations range from 98% of the comparison states (Radiology Technician) to 112% (LPN and Nurse Practitioner) with an average of approximately 105%.

The results reported on Table 9A.1 reflect base salaries only. The Alaska survey also summarizes total cash compensation, though those results were very similar to the base salary information.

**Table 9A.1
Health Care Salaries for Alaska and Select Comparison States (2010)**

State	Job Title	Number of Firms	Number of Employees	Base Salary						
				Average (1)	Weighted Average (1)	1st Quartile	Median	3rd Quartile	Minimum	Maximum
Alaska	Certified Nursing Assistant	6	399	33,627	34,452	31,918	34,120	35,535	29,842	41,367
	LPN - Acute Care	8	89	52,277	53,532	46,043	54,281	57,697	40,548	54,687
	RN - Acute Care	8	870	77,061	76,910	69,345	73,940	82,811	56,683	88,290
	Physician Assistant	6	12	100,221	101,520	91,198	96,669	113,458	79,563	109,268
	Physical Therapist	6	20	79,607	82,845	72,102	80,529	88,700	60,609	84,410
	Social Worker - Master's	9	29	65,027	69,496	59,702	65,106	68,650	50,680	74,630
	Medical Lab Technician	5	16	46,966	47,624	42,648	48,103	50,715	38,244	52,388
	Pharmacy Technician	7	76	40,287	40,755	36,918	40,914	42,845	33,374	45,849
	Pharmacist	6	35	120,465	122,155	114,213	121,147	124,526	90,737	125,940
	Radiology Technologist - Registered	5	27	55,552	56,655	52,364	57,037	57,999	47,243	68,677
	Ultrasonographer	6	21	76,966	77,448	72,290	77,713	80,955	58,444	85,989
	Nursing Manager	7	44	102,031	111,158	86,995	105,680	117,413	76,854	113,358
Nurse Practitioner - General	8	36	101,245	113,065	91,364	103,132	115,151	71,877	107,943	
Northwest ⁽²⁾	Certified Nursing Assistant	92	7,451	30,659	31,678	27,706	30,243	32,802	25,979	37,981
	LPN - Acute Care	73	1,217	47,757	47,778	43,472	47,882	52,000	35,797	54,309
	RN - Acute Care	96	37,442	75,213	77,730	69,950	77,376	80,829	54,766	94,328
	Physician Assistant		684	99,766	98,054	86,413	97,880	109,770	73,390	111,626
	Physical Therapist	95	1,911	80,226	78,478	74,422	79,040	84,843	61,630	90,563
	Social Worker - Master's	89	1,263	60,507	63,419	55,827	60,174	66,040	47,715	71,178
	Medical Lab Technician	79	609	47,445	47,986	43,389	47,112	51,605	37,398	56,160
	Pharmacy Technician	99	2,171	38,646	39,978	35,672	39,000	41,226	31,491	46,030
	Pharmacist	102	2,147	113,568	117,104	109,762	113,672	118,685	90,147	124,592
	Radiology Technologist - Registered	115	2,059	55,557	57,949	51,230	55,411	59,758	45,323	67,267
	Ultrasonographer	94	949	75,442	76,544	69,576	75,088	79,706	58,635	86,798
	Nursing Manager		880	100,172	104,553	93,445	101,329	108,388	75,924	115,425
Nurse Practitioner - General	73	985	92,976	101,379	83,346	92,622	100,256	72,446	107,245	
Alaska vs Northwest	Certified Nursing Assistant			110%	109%	115%	113%	108%	115%	109%
	LPN - Acute Care			109%	112%	106%	113%	111%	113%	101%
	RN - Acute Care			102%	99%	99%	96%	102%	103%	94%
	Physician Assistant			100%	104%	106%	99%	103%	108%	98%
	Physical Therapist			99%	106%	97%	102%	105%	98%	93%
	Social Worker - Master's			107%	110%	107%	108%	104%	106%	105%
	Medical Lab Technician			99%	99%	98%	102%	98%	102%	93%
	Pharmacy Technician			104%	102%	103%	105%	104%	106%	100%
	Pharmacist			106%	104%	104%	107%	105%	101%	101%
	Radiology Technologist - Registered			100%	98%	102%	103%	97%	104%	102%
	Ultrasonographer			102%	101%	104%	103%	102%	100%	99%
	Nursing Manager			102%	106%	93%	104%	108%	101%	98%
	Nurse Practitioner - General			109%	112%	110%	111%	115%	99%	101%
Average				104%	102%	102%	100%	104%	105%	97%

(1) "Average" is a straight average across firms. "Weighted average" is weighted by number of employees, so larger firms have a larger weight.
 (2) Includes Washington, Oregon, and Idaho. Hourly figures are multiplied by 2,080 to approximate yearly salary.
 (3) Physician Assistants and Nursing Managers were both separated into multiple "sub-occupations" in the Northwest survey. Total statistics for these lines were weighted together by the number of employees in each sub-occupation. The number of firms for these jobs is not able to be calculated, since there is overlap between the sub-occupations.

The second source of compensation data is from BLS’s May 2010 Occupational Employment and Wages estimates. Although the data include over 40 healthcare occupations, we have simplified the results by combining all physician and surgeon categories and excluding occupations with fewer than 200 estimated full time equivalents in Alaska.

Table 9A.2 shows the salaries in Alaska and the comparison states for each occupation. BLS wage information includes incentive pay and production bonuses, but does not include overtime, shift differentials or the employer cost of benefits.

Table 9A.2
Health Care Salaries (excluding Self Employed) for Alaska and Comparison States (2010 – from BLS)

Job Title	Mean Annual Income								Comparison St Avg	AK vs Avg
	AK	HI	ID	ND	OR	WA	WY			
Physicians and Surgeons	195,864	177,817	179,810	170,131	178,393	173,006	190,044	178,348	110%	
Physician Assistants	91,810	78,870	89,720	79,310	93,580	98,620	97,890	93,870	98%	
Pharmacists	118,060	106,360	102,540	99,700	111,160	107,060	105,200	107,159	110%	
Registered Nurses	79,350	82,130	62,720	57,020	75,350	73,680	58,750	72,201	110%	
Physical Therapists	92,720	71,940	69,130	62,490	75,150	75,180	75,130	73,546	126%	
Speech-Language Pathologists	85,440	58,850	61,980	50,400	73,290	69,660	62,030	67,139	127%	
Medical and Clinical Laboratory Technologists	63,920	61,550	53,510	48,280	63,270	62,250	56,900	60,472	106%	
Medical and Clinical Laboratory Technicians	44,520	42,500	36,650	33,600	43,220	39,840	28,630	39,360	113%	
Radiologic Technologists and Technicians*	64,870	65,220	50,000	44,550	61,550	62,670	51,090	59,712	109%	
Emergency Medical Technicians and Paramedics	48,050	47,920	39,670	29,720	44,570	43,530	32,190	41,810	115%	
Pharmacy Technicians	39,210	34,920	29,500	31,820	34,080	37,290	31,960	34,927	112%	
Psychiatric Technicians	32,120	0	28,410	27,330	39,030	36,790	29,510	34,865	92%	
Licensed Practical and Licensed Vocational Nurses	47,100	44,640	38,120	35,320	45,370	45,400	39,810	42,479	111%	
Medical Records and Health Information Technicians	39,300	42,430	30,910	30,730	35,970	37,630	34,450	36,329	108%	

Consistent with Table 9A.1, salaries in Alaska are higher than in the comparison states. The BLS data indicates a slightly higher relative reimbursement in Alaska. However, in both cases, the relative salaries in Alaska are lower than the relative facility and professional unit cost reimbursement identified in our initial reports.

B. METHODOLOGY

Salary statistics were taken from the 2011 Alaska Cross-Industry Survey and the 2011 Northwest Health Care Industry Salary Survey, both administered by Milliman, Inc.

The data for the Alaska survey were compiled from 50 major employers with operations located throughout the state. The survey includes data on many occupations not related to health care, but we have included only the health care occupations in our analysis. Specific health care respondents include Alaska Native Tribal Health Consortium, Alaska VA Healthcare System, Fairbanks Memorial Hospital, PeaceHealth Ketchikan General Hospital and Providence Health & Services Alaska. The data is effective June 2011.

The data for the Northwest survey was compiled from 161 major hospital, clinic, home care, and long-term care organizations across Washington, Oregon, and Idaho. The data is effective January 2011. Since the Northwest salaries were reported on an hourly basis, and the Alaska survey was reported on an annual basis, we multiplied the hourly pay rates by 2,080 (52 weeks times 40 hours per week) to approximate annual salaries for the Northwest.

Physician Assistants and Nursing Managers were both separated into multiple "sub-occupations" in the Northwest survey. Total statistics for these lines were weighted together by the number of employees in each sub-occupation. The number of firms for these jobs cannot be calculated, since there is overlap between the sub-occupations.

The average salary across all listed positions is an average of the salary ratios by position, weighted based on the number of jobs in Alaska for each position.

BLS data contain mean salaries for each position. These numbers are reported directly in our results with the exception of the "physician and surgeon" category, which aggregates results from seven separate jobs included in the BLS data. The average salary for physicians and surgeons in each state is based on the relative number of employees for each position in Alaska.

The comparison states average salary for each job position is weighted across states in proportion to the number of employees in each state for that job. For the physician and surgeon subtotal, the comparison states average is calculated for each of the seven jobs, then weighted together using the distribution of those jobs within Alaska, so that differences in the mix of physician and surgeon jobs would not skew the comparison.

Note that the BLS data excludes self-employed individuals (which may therefore exclude any independently practicing physicians¹⁵).

¹⁵ See <http://www.bls.gov/oes/>

10. HEALTH CARE PROFESSIONAL SHORTAGE AREAS

Health care prices are subject to the laws of supply and demand, like most other goods and services. While those market forces are somewhat hampered for hospitals due to the high cost of opening a new facility, they can be applied to professional health care services. Anecdotally, it is broadly accepted that the relative scarcity of health care professionals in Alaska is part of the reason for the high cost of services.

In order to compare supply and demand, we used data on Health Professional Shortage Areas (HPSAs), which are developed by the Office of Shortage Designation, Bureau of Health Professions, Health Resources and Services Administration (HRSA).¹⁶ HPSAs are identified for primary care, mental health and dental services, but we have focused on the primary care physician shortages for this study.

Table 10A.1 below shows the percentage of the population in each state living in primary care HPSAs, indicating that they have a shortage of primary care providers.

**Table 10A.1
Underserved Population in Primary Care HPSAs (2008)**

Estimated Underserved Population (2008)	
United States	11.8%
Alaska	12.1%
Hawaii	2.6%
Idaho	17.4%
North Dakota	22.0%
Oregon	7.1%
Washington	9.5%
Wyoming	20.3%

The percentage of the population in primary care shortage areas in Alaska, at 12.1%, is close to the nationwide average of 11.8%, while the comparison states range from 2.6% (Hawaii) to 22.0% (North Dakota). Looking only at this information would suggest that reimbursement for primary care physicians in Alaska is at a level that attracts enough primary care providers to generate a reasonable HPSA population percentage. Of note, Alaska’s underserved population percentage is lower than that of the two comparison states without medical schools (Idaho and Wyoming), suggesting that Alaska is attracting more physicians from out of state, possibly because of the relative difference in reimbursement.

In the bigger picture, this result does point out the nationwide shortage of primary care doctors.

¹⁶ For more information, see <http://statehealthfacts.org/comparemaptable.jsp?ind=682&cat=8>

11. COMMERCIAL DISCOUNTS

A. DETAILED RESULTS

Commercial discounts represent the difference between provider charges (the “billed” amount) and provider reimbursement (the “allowed” amount). While discounts without billed charge level information cannot be used to compare absolute reimbursement levels, discount levels may be indicative of the degree to which commercial payers have negotiating leverage relative to providers.

The Milliman Discount Benchmark Model shows discount information for carriers in each state, excluding Blue Cross and Blue Shield (BCBS) plans. Although much of the commercial care in Alaska is through Premera Blue Cross Blue Shield, there is a sufficient volume of Alaska commercial data in our database (over \$30 million in billed charges) to produce credible discounts estimates.

Using the model, we calculated average provider commercial discounts for Alaska and each of the comparison states (where data was sufficiently credible). For more information on this model, please see Section 11B: Methodology. Results are shown in Table 11A.1 below.

Table 11A.1
Commercial discounts by major category of service (2008-2009)

State	Provider Discounts			
	Inpatient Hospital	Outpatient Hospital	Professional	Overall
Alaska	32%	35%	20%	28%
Idaho	27%	20%	29%	25%
Oregon	36%	35%	32%	34%
Washington	46%	49%	35%	42%
Wyoming	19%	16%	26%	21%

Overall, hospital discounts in Alaska are higher than Idaho and Wyoming, similar to Oregon and below Washington. Professional discounts are lower than the comparison states.

The lower physician discounts in Alaska can be at least partly explained by the relative lack of competition among providers, particularly for specialty care. In many areas, including Anchorage, there are a limited number of providers in any given specialty (sometimes only one provider group). As a result, physicians can largely dictate the fees they are paid by commercial payers.

The relative provider leverage may be further exacerbated by Alaska’s regulation requiring usual and customary charge payments to be at least equal to the 80th percentile of charges by geographic area. We are not aware of similar provisions in other states. Since many providers have over 20% of their

market share, this implies that those providers can ensure that their charges are below the 80th percentile and therefore, receive payment for their full billed charges.

A separate state law in Alaska requires payers to reimburse even non-contracted providers directly (instead of reimbursing them through the patient). This provision removes another incentive typically used by payers to encourage providers to join their networks.

Indeed, at least one major commercial payer sets its contractual fee schedule using a percentile of charge approach, and a high percentile, presumably in order to ensure sufficient physician participation. This approach and fee level is unique to Alaska; we have not seen a similar approach used for a PPO product in the rest of the United States.

B. METHODOLOGY

Beginning in 2001, Milliman started collecting employer group historical medical claims data to determine the lowest cost solution from a network reimbursement perspective. We typically collect more than a billion dollars of health care data each year. This data becomes the basis for our annual market reimbursement benchmarking.

The data we have compiled for the 2010 benchmark analysis includes employer group data collected during 2009 and 2008 and represents primarily 2008 – 2009 incurred dates. By combining two years worth of data, we were able to benchmark 158 Metropolitan Statistical Areas (“MSAs”) amounting to approximately \$3.41 billion in billed charges. Discounts reflect claim reimbursement for major national carriers/networks and several self-administered networks and TPAs; however, BCBS data is not included in the benchmark data.

Claims are mapped to MSAs (and states) based on the residential zip code of the patient when provided in the claims data; otherwise, the provider zip code is used. The benchmarks are measured using discounts off of billed charges.

12. COST OF LIVING

A. DETAILED RESULTS

The overall cost of living in a given region affects the cost of health care. Hospitals and physicians in more expensive areas will need to pay higher salaries. In addition, non-staff costs such as property, construction/leasing, utilities and transportation will affect the relative cost to provide health care in each area (and therefore, provider reimbursement).

The Council for Community and Economic Research calculates the ACCRA Cost of Living Index (COLI) for select urban areas, which is referenced in the US Census Bureau's Statistical Abstract of the US.¹⁷ The COLI is a measure of prices for consumer goods and services in a certain area. Taxes are excluded from the calculation. The composite COLI is calculated from smaller components, such as health care, that are weighted together based on each component's share of consumer spending. Weights are based on nationwide results from the Bureau of Labor Statistics' 2004 Consumer Expenditure Survey.

The COLI for urban areas in Alaska and the comparison states is shown below. The COLI is restricted to urban centers and therefore, no equivalent values are available for rural areas. Note that each number is to be read as a percentage over or under the nationwide average.

¹⁷ http://www.census.gov/compendia/statab/cats/prices/consumer_price_indexes_cost_of_living_index.html

**Table 12A.1
Cost of Living Index (2010)¹⁸**

Urban Area	Cost of Living Index (2010)						
	Composite Index (100%)	Grocery Items (13%)	Housing (29%)	Utilities (10%)	Transportation (12%)	Health Care (4%)	Miscellaneous Goods and Services (32%)
Anchorage, AK	128.4	134.5	142.9	94.1	122.0	135.7	124.8
Fairbanks, AK	137.4	127.9	148.5	193.1	118.7	144.9	118.8
Juneau, AK	136.5	133.1	165.7	135.1	121.2	144.4	116.1
Kodiak, AK	128.7	149.4	127.8	131.9	143.4	130.7	115.4
Honolulu, HI	165.7	160.1	249.0	146.6	126.2	120.0	117.9
Boise, ID	97.2	98.5	84.0	99.6	108.0	106.6	103.3
Idaho, Falls, ID	90.6	99.5	78.0	84.9	102.1	93.2	96.3
Twin, Falls, ID	91.5	95.5	81.4	97.0	99.2	93.3	94.6
Bismarck-Mandan, ND	95.3	105.9	91.5	70.1	102.6	100.5	99.4
Fargo-Moorhead, ND-MN	92.7	99.8	87.4	78.7	95.8	102.4	96.6
Minot, ND	99.9	99.3	95.9	73.5	98.2	91.0	113.6
Eugene, OR	109.8	93.8	132.3	85.3	110.0	118.2	102.9
Portland, OR	111.3	105.8	130.8	87.1	105.8	113.6	105.1
Bellingham, WA	113.0	114.9	135.9	83.8	113.2	115.3	100.8
Everett, WA	111.3	112.0	128.1	85.4	110.4	129.1	102.1
Kennewick-Richland-Pasco, WA	92.6	90.9	85.9	85.1	106.1	109.9	95.2
Olympia, WA	104.1	107.4	102.2	82.1	114.9	120.5	106.0
Seattle, WA	121.4	115.1	140.3	85.7	118.8	119.9	119.1
Spokane, WA	93.9	92.4	85.7	89.5	109.1	110.0	96.5
Tacoma, WA	109.5	111.3	116.6	83.1	109.0	115.1	110.2
Vancouver, WA	94.8	96.9	82.2	91.8	106.1	114.3	100.1
Yakima, WA	95.8	99.8	86.9	86.8	105.5	117.1	99.2
Cheyenne, WY	100.5	101.7	107.9	96.3	95.0	98.3	96.5
Laramie, WY	97.0	105.1	102.3	90.5	91.6	97.5	92.7
Nationwide	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The composite COLI for the four Alaska areas range from 128% to 137% of the nationwide average. The health care component is 130% to 145% of the nationwide average. These high costs are roughly consistent with the hospital operating cost results seen in Table 5A.1.

¹⁸ http://www.census.gov/compendia/statab/cats/prices/consumer_price_indexes_cost_of_living_index.html

13. LIMITATIONS AND CONSIDERATIONS

Any opinions expressed in this report are solely those of the authors.

Any reader of this report must possess a certain level of expertise in areas relevant to this analysis to appreciate the significance of the approaches and assumptions and the impact of these approaches and assumptions on the results. The reader should be advised by their own actuaries or other qualified professionals competent in the subject matter of this report, so as to properly interpret the material.

This report is subject to the terms of the contract between the Alaska Health Care Commission and Milliman. This report is not intended to benefit third parties. Regarding the contents of this report, Milliman makes no representations or warranties to third parties. Third parties are to place no reliance upon this report that would result in the creation of any duty or liability for Milliman or its employees to third parties, under any theory of law. Third parties receiving this report must rely on their own experts to draw conclusions about the report's contents.

As documented in the report, this analysis has relied extensively on historical data. The data were reviewed for reasonableness, but no independent audits were performed. Should errors or omissions be discovered in the source data, the results of our analysis would need to be modified. Future results will differ from the historic estimates in this report.

This report did not review the relative quality of care provided to Alaskans, nor the relative health outcomes from treatment. Those issues were beyond the scope of our report but should be considered when evaluating the relative value of health care in Alaska.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. We are members of the American Academy of Actuaries and meet the qualification standards for performing the analyses in this report.

APPENDIX 1. LIST OF HOSPITALS

Following is the list of hospitals included in each of the analyses in this report. The list differs across analyses due to the availability of data. For each analysis, we have included all hospitals with sufficient data.

Alaska Hospitals Included in Analysis						
	Reimbursement (From Previous Report)	ALOS	Cost	Margin	Occupancy Rates	Staffing Ratios
Anchorage / Fairbanks / Mat-Su						
Alaska Native Medical Center	✓	✓				✓
Alaska Psychiatric Institute	✓		✓			
Alaska Regional Hospital	✓	✓	✓	✓	✓	✓
Denali Center	✓					
Fairbanks Memorial Hospital	✓	✓	✓	✓	✓	✓
Mat-Su Regional Medical Center	✓	✓	✓	✓	✓	✓
Providence Alaska Medical Center	✓	✓	✓	✓	✓	✓
Providence Extended Care Ctr	✓					
St Elias Specialty Hospital	✓		✓			✓
Non-MSA Area						
Bartlett Regional Hospital	✓	✓	✓	✓	✓	✓
Bristol Bay Area Health Corp						✓
Central Peninsula General Hospital	✓	✓	✓	✓	✓	✓
Cordova Community Medical Center	✓	✓	✓	✓	✓	✓
Faith Hospital						✓
Hospice & Home Care of Juneau						✓
Kanakanak Hospital	✓	✓				✓
Ketchikan General Hospital	✓	✓	✓	✓	✓	✓
Maniilaq Health Center	✓	✓				✓
Mt Edgecumbe Hospital	✓	✓	✓			✓
Norton Sound Regional Hospital	✓	✓	✓	✓	✓	✓
Petersburg Medical Center	✓	✓	✓	✓	✓	✓
Providence Kodiak Island Medical Ctr	✓	✓	✓	✓	✓	✓
Providence Seward Hospital	✓	✓	✓	✓	✓	✓
Providence Seward Med & Care Center Ltc	✓					
Providence Valdez Medical Center	✓	✓	✓	✓	✓	✓
Samuel Simmonds Memorial Hospital	✓	✓				✓
Sitka Community Hospital	✓	✓	✓	✓	✓	✓
South Peninsula Hospital	✓	✓	✓	✓	✓	✓
Valdez Community Hospital						✓
Wildflower Court	✓					
Wrangell Medical Center	✓	✓	✓	✓	✓	✓
Yukon Kuskokwim Delta Reg Hospital	✓	✓				✓