

Alaska State Legislature

State Capitol, Room 422
Juneau, AK 99801-1182
Phone: 465-4939
Fax: 465-2418
Toll Free: (800) 465-4939
Representative_Pete_Petersen@legis.state.ak.us



716 W. 4th Ave
Anchorage, AK 99501-2133
Phone: 269-0265
Fax: 269-0264

Representative Pete Petersen District 19

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James N. Boudier, MPA
7 South Main Street, 2nd Floor
Manheim, PA 17545
(717) 808-9910
jboudier@ptd.net

March 9, 2009

The Honorable Pete Petersen
Alaska State Capitol
Juneau, AK 99801

VIA FIRST CLASS MAIL

RE: Cost Analysis – Alaska House Bill 187 pertaining to Insurance Coverage for Autism Diagnosis and Treatment

Dear Representative Petersen:

I thank you for the opportunity to complete an analysis of the likely effect of insuring the treatment of autism on commercial insurance rates in the State of Alaska. I am pleased to provide you with this information to assist you and your colleagues in making an informed public policy decision with regard to this proposed legislation. As you are aware, autism is a serious developmental disability that affects approximately 1 in 150 children across the United States. The cause is uncertain, but a significant research base indicates that the most debilitating symptoms of autism can be remediated using intensive services based on the principles of Applied Behavior Analysis (“ABA”). If enacted, House Bill 187 would require insurance policies to provide coverage for the diagnosis and treatment of autism spectrum disorder (“autism” or “ASD”), including coverage for behavioral therapy.

Based on my review of the available data and literature, I estimate that the likely effect on commercial insurance rates in Alaska will be approximately 0.92% or \$3.60 per member per month (“pmpm”). This estimate is consistent with my findings in other states and with the actuarial findings pertaining to similar legislation recently enacted or pending in Pennsylvania, Arizona, Georgia, Louisiana, Maryland, and Virginia. A detailed narrative describing my findings is set forth below.

Also, as requested, I assessed the likely claims increase that could be expected should Alaska extend this coverage to children of Alaska state employees. I found that the State of Alaska could expect approximately \$543,000 in additional claims, which translates into approximately \$3.02 per government employee per month.

Again, I thank you for this opportunity. Should you require copies of any studies cited, please do not hesitate to contact me. I hope you find this information helpful. If you have any questions or would like additional information, please feel free to contact me at (717) 808-9910 or by email at jbouder@ptd.net.

With Kind Regards,

James N. Bouder, MPA

Cc: The Honorable Nancy Dahlstrom

Cost Analysis – Alaska Autism Insurance Coverage

James N. Boudier, MPA

- ✘ **Autism** is a devastating disorder affecting at least 1 in 150 children, with approximately 1 in 500 requiring significant clinical treatment;
- ✘ **Autism is treatable** – with treatment, 30 years of research has shown us that many children overcome the severe symptoms of their disorder, but most private insurance policies specifically exclude coverage for treating autism, even when the service is otherwise covered by the health plan;
- ✘ The coverage of autism treatment in Alaska will enable many children to access services they need;
- ✘ The maximum likely cost of such coverage to the private insurance ratepayer is approximately **0.92%** or **\$3.60** per policyholder per month;
- ✘ If the State of Alaska chooses to extend this coverage to dependents of state employees, this will likely result in an increase in claims costs of approximately **\$3.02** per government employee per month;
- ✘ **Other States Confirm this Finding:** The Pennsylvania Insurance Department found that similar legislation will result in a rate impact of **at or less than 1%**; in **Arizona**, an independent actuary forecasted a cost impact of **0.501%**; in **Louisiana**, the consulting actuaries for the **Louisiana Office of Group Benefits** forecast a cost impact of **less than 0.50%**; in **Oklahoma**, the **Oklahoma State Education Employees Group Insurance Board** estimated a cost impact between **one-third of 1% and 1%**; and in the most comprehensive actuarial report on autism coverage to date, **Mercer** reported to the **Maryland Health Care Commission** an estimated premium increase of approximately **0.85%**
- ✘ With treatment, Alaska can save approximately **\$208,500 per capita** in avoided special education costs during the school years alone and **\$1.08 million per capita** during the autistic person's lifespan;
- ✘ The incremental societal cost of not treating autism has been estimated by Michael Ganz, a Harvard economist, to be **approximately \$3.2 million per capita**.

Section 1. Private Insurance Premium Rate Impact

The likely, maximum premium impact of autism coverage will be less than 1%, amounting to approximately \$3.60 per member per month (pmpm) for single policy rates and \$9.49 pmpm for family rates.

Number of Eligible Beneficiaries of Autism Coverage in Alaska

My first task in estimating the likely cost of extending treatment to Alaskans with autism is to determine how many people in Alaska are eligible for and likely to utilize the benefits mandated by the bill.

According to estimates provided by the U.S. Census Bureau, there are approximately 190,947 persons living in Alaska between the ages of 2 and 20 who could be eligible for the benefits under the House Bill 187.¹ It is also estimated that approximately 66.6% of children with special health care needs living in Alaska under the age of 18 have private health insurance and approximately 55.9% of such children living in Alaska are insured under group health insurance plans.² The number of persons living in Alaska between the ages of 2 and 20 who are insured under group plans, therefore, is approximately 106,664.

Based on information published by the Medical Expenditures Panel Survey ("MEPS"), 54.6% of private-sector enrollees working in Alaska are enrolled in self-insured plans (MEPS 2005 Report, p. 1).³ The potential pool of beneficiaries between age 2 and 20, therefore, after accounting for ERISA preemption and the uninsured, is approximately 48,425.

Treated Prevalence Rate of Children with Autism in Alaska

Actuarial analyses and insurer criticisms of bills similar to the bill contemplated for Alaska often utilize the CDC's statistic on community prevalence in pricing such bills, notwithstanding actual treated prevalence rates within existing systems or present in the research record. Recently, the Commonwealth of Pennsylvania Insurance Department utilized the 1 in 150 statistic in deriving their estimated rate impact of approximately 1.1%, with regard to very similar legislation introduced in that state.

While the latter example reports an estimated rate impact that is very low, utilizing a 1 in 150 prevalence rate demonstrates a lack of understanding of the range of symptom severity exhibited by people with ASD, and thus overstates the

¹ U.S. Bureau of the Census, "Table DP-1. Profile of General Demographic Characteristics: 2006 Population Estimates."

² Health and Disability Working Group. "The Catalyst Center: Improving Financing of Care for Children and Youth with Special Health Care Needs." Boston University School of Public Health, Boston, MA (2007), p. 43.

³ See The Kaiser Family Foundation State Health Facts Website:
<<http://www.statehealthfacts.org/profileind.jsp?ind=236&cat=4&rqn=50>>

number of persons with autism likely to require and seek significant clinical treatment.

Several examinations of health care utilization and expenditures associated with treating autism have been published in recent years that call into question the appropriateness of using epidemiological prevalence data to forecast the magnitude of health care utilization resulting from passage of House Bill 187. In 2007, Douglas L. Leslie and Andres Martin compiled data from the Thomson/Medstat MarketScan database, "which compiles claims information from private health insurance plans of large employers ... across the United States ... [with] covered individuals includ[ing] employees, their dependents, and early retirees" (Leslie, p. 351).⁴ Leslie et al. note that the *treated prevalence* of autism in the claims database was 19.2 per 10,000 (*i.e.*, 1 in 520.83) (p. 352). Independently, Gregoral S. Liptak et al. obtained data from three national surveys and identified a treated prevalence of autism of 21 in 10,000 (*i.e.*, 1 in 476.19) (Liptak et al., p. 872).⁵ Similarly, in a previous article, David S. Mandell et al. reported a treated prevalence rate of youth diagnosed with autism in Allegheny County, PA of 0.2% (*i.e.*, 1 in 500) (Mandell et al., p. 477).⁶ More recently, Shimabukuro et al.'s examination of MarketScan® data found a treated prevalence rate of 1.9 per 1,000 (or approximately 1 in 526) (p. 549).⁷ Most recently, the nationally recognized actuarial firm, Mercer, completed an evaluation of Maryland's proposed autism insurance mandate, which is substantively similar to House Bill 187, but has a \$50,000 annual cost cap.⁸ Mercer included both treated prevalence rates and cost per treated child estimates broken down by age bands to establish low, mid, and high estimates of premium impact, resulting in a mid-range estimate of 0.85%.

These findings are consistent with other medical conditions, which present with a treated prevalence rate much lower than the community prevalence rate. The consistency of these data suggest that the treated prevalence of autism is a better measure to apply to premium impact analyses because, unlike community prevalence data, which simply report the number of persons satisfying the diagnostic criteria for Autism Spectrum Disorders, treated prevalence accounts for those persons with autism actually seeking and consuming health care services related to their disorder.

⁴ Leslie, Douglas L. and Andres Martin (2007) "Health Care Expenditures Associated with Autism Spectrum Disorders." *Archives of Pediatric and Adolescent Medicine*. Vol. 161, Apr. 2007, pp. 350-355.

⁵ Liptak, Gregory S., Tami Stuart, and Peggy Auinger (2006). "Health Care Utilization and Expenditures for Children with Autism: Data from U.S. National Samples." *Journal of Autism and Developmental Disorders*. Vol. 36, pp. 871-879.

⁶ Mandell, David S., Jun Cao, Richard Ittenbach, and Jennifer Pinto-Martin (2006). "Medicaid Expenditures for Children with Autistic Spectrum Disorders: 1994 to 1999." *Journal of Autism and Developmental Disorders*, Vol. 36, No. 4, pp. 475-485.

⁷ Shimabukuro, Tom T., Scott D. Grosse, and Catherine Rice (2008). "Medical Expenditures for Children with an Autism Spectrum Disorder in a Privately Insured Population" *Journal of Autism and Developmental Disorders*, Vol. 38, No. 4, pp. 546-552.

⁸ Mercer/Oliver Wyman (2008) *Annual Mandated Health Insurance Services Evaluation, Coverage for Autism Spectrum Disorder*, pp. 3-33.

Assumptions

While much of the data included in this analysis was derived from primary sources, some assumptions were necessary due to my inability to independently confirm certain data elements from primary sources or required statistical calculations to forecast future sums. These assumptions are set forth below.

- Using data published by the Alaska Division of Insurance, I estimate a premium base of \$346.0 million in 2009.⁹
- Based on claims history of insurers in Alaska, I assumed an 85% Medical Loss Ratio, which is considered an industry standard. The Medical Loss Ratio was used to convert cost effect to revenue requirement.
- 45.4% of health insurance plans offered by private firms in Alaska that are not subject to ERISA preemption remains an accurate figure, as reported by the MEPS for 2005 (cited above).
- In order to produce a conservative estimate, 100% of likely, increased costs attributable to services provided under House Bill 187 will be passed on to private insurance ratepayers participating in eligible plans (*i.e.*, private insurers will choose not absorb any additional costs).
- Calculations assume an adequate provider network is in place on the legislation's effective date to meet the demand for services.

Cost Analysis

The next step in my cost analysis is to establish the likely cost of covering these services and their potential rate effect. In the interest of providing a range of rate impact resulting from the coverage of services contemplated for Alaska autism coverage, I have provided calculations based on a number of variables. I attempted to do so using credible data available to the general public. For your convenience, attached is a spreadsheet detailing the likely range of impact the covered services will have on private insurance ratepayers in Alaska (**See Exhibit "A" attached**).

The most likely scenarios are derived in part from peer-reviewed research evaluating real-life data concerning the treated prevalence of autism and average expenditures per treated person with autism and prevalence rates assumed by Mercer in their actuarial estimate of increased costs associated with a similar bill pending in Maryland (cited above). Persons living with autism present with varied symptoms requiring differing levels of attention based on the severity of symptoms. The more severe symptoms requiring intensive behavioral health and other clinical interventions are not necessarily present in every person diagnosed with an Autistic Spectrum Disorder, especially when those less severely affected reach the school age. This is evidenced by the treated prevalence rates reported in Mandell et al (2006), Leslie et al. (2007), Liptak et al. (2007), and Shimabukuru et al. (2008) noted and cited above, which consistently report a treated prevalence rate of

⁹ Report of the Alaska Division of Insurance (2008), retrieved from <<http://www.commerce.state.ak.us/insurance/>>

approximately 1 in 500 (or 0.20%). One should expect, therefore, that actual utilization rates will track more closely along treated prevalence rates noted in the abovementioned reviews of actual health care utilization data than community prevalence rates reported from epidemiological studies such as the recent report of the CDC.

While I was unable to locate any Alaska-specific data on average treatment costs, the findings of the Mercer actuaries in Maryland are instructive. Relying on the research of Harvard economist Michael Ganz, Mercer recognized that the heaviest utilization of services would fall in the preschool years, and drop considerably as the child reaches school age and approaches adulthood. Mercer assumed a cost per treated child between the ages of 18 and 20 to be from \$2,525 to \$3,500, as the biggest cost drivers for adult services are vocational support and supported housing (i.e., non-medical expenses).¹⁰

Three possible expenditure scenarios are included in my cost analysis, establishing Low, Mid, and High Estimates, using the treated prevalence rates and cost per treated child estimates similar to those Mercer relied upon in Maryland. Overall, the treated prevalence rates for Low, Mid, and High estimates were 1:400, 1:325, and 1:250, respectively.

Table 1 below illustrates the likely utilization rates and cost per treated person by age band. Based on these assumptions, the percentage increase in premium costs for Alaska falls in the 0.57% to 1.49% range, with a mid-range estimate of 0.92% (see attached **Exhibit "A"** attached for more detail).

¹⁰ Ganz, Michael L. (2007). "The Lifetime Incremental Societal Costs of Autism." *Archives of Pediatric and Adolescent Medicine*. Vol. 161, Apr. 2007, pp. 343-349.

TABLE 1: Treated Prevalence and Cost per Treated Person Assumptions.

<u>Low Estimate</u>		
Age Band	ASD Treated Prevalence for Age Band	Cost per Treated Person
2 to 4	0.25%	\$30,000
5 to 9	0.35%	\$19,660
10 to 14	0.25%	\$6,758
15 to 19	0.20%	\$2,525
20 years	0.20%	\$2,525
Premium Increase % of Premium		0.57%
<u>Mid Estimate</u>		
Age Band	ASD Treated Prevalence for Age Band	Cost per Treated Person
2 to 4	0.30%	\$36,000
5 to 9	0.45%	\$26,200
10 to 14	0.30%	\$9,000
15 to 19	0.25%	\$3,500
20 years	0.20%	\$3,500
Premium Increase % of Premium		0.92%
<u>High Estimate</u>		
Age Band	ASD Treated Prevalence for Age Band	Cost per Treated Person
2 to 4	0.45%	\$36,000
5 to 9	0.67%	\$30,500
10 to 14	0.35%	\$12,000
15 to 19	0.30%	\$3,500
20 years	0.25%	\$3,500
Premium Increase % of Premium		1.49%

Based on statistical data published by the Kaiser Family Foundation reporting average annual single and family policy rates in 2008, single policy rates will likely experience an increase no greater \$3.60 per member per month (pmpm) and \$9.49 pmpm for family rates as a result of implementing coverage provided by the proposed legislation.¹¹

¹¹ As cited above, see the *Kaiser Family Foundation and Health Research and Educational Trust* publication, "Employer Health Benefits - 2008 Annual Survey," which reports that the average annual total premium cost for single coverage in the Western United States is \$4,683 and \$12,351 for family coverage.

Section 2. State Employee Cost Impact

The likely, cost impact of autism coverage for dependents of state workers will be approximately \$554,000, which is less than 1% over current claims experience.

Not all state employees in Alaska receive health insurance coverage through the state's health care plan (Select Benefits), but rather through self-funded union trust plans ("Union Plans") that are primarily funded through state contributions. While I was not able to obtain copies of financial statements for the various Union Plans, I was able to obtain claims and census data for the Select Benefits plan and determine the total number of full-time government employees from the 2008 Comprehensive Annual Financial Report to be approximately 15,000.¹² Together, this information provided me with sufficient data to estimate the total added claims that the State of Alaska could anticipate if it decided extend coverage mandated by House Bill 187 to dependents of state employees.

According to the State of Alaska, Department of Administration, Division of Retirement and Benefits, approximately 40% of Alaska's +/- 15,000 state employees are insured under the Select Benefits plan, which includes approximately 6,000 employees. The Division of Retirement and Benefits also provided me with the numbers of insured children by age band between the ages of 2 and 20 as follows:

TABLE 2: # of Children by Age Band (Aged 2 to 20) Participating in Select Benefits¹³

Insured Dependents by Age Band	%	# Children
2 to 4 years	9.68%	428
5 to 9 years	20.90%	924
10 to 14 years	27.65%	1,222
15 to 19 years	35.34%	1,562
20 years	6.43%	284
TOTAL		4,420

Based on data provided by the Division of Retirement and Benefits, I was able to determine that the average household of employees participating in the State of Alaska's Select Benefits plan has 0.74 children (derived from the estimated 6,000 employees participating in the plan and 4,420 dependents between the ages of 2 and 20 who are also covered). Additionally, according to the Division of Retirement and Benefits, total claims paid by the Select Benefits plans in 2008 were \$62.4 million.

This data provides a sufficient sample to estimate the likely number of dependents between the ages of 2 and 20 who are insured by either the Select Benefits or Union Plans as follows:

¹² 2008 Alaska Comprehensive Annual Financial Report, p. 252.

¹³ Source: Personal Correspondence with the Division of Retirement and Benefits.

TABLE 3: Estimated # Children Insured Under Both Select Benefits and Union Plans

Insured Dependents by Age Band	%	# Children
2 to 4 years	9.68%	1,070
5 to 9 years	20.90%	2,310
10 to 14 years	27.65%	3,055
15 to 19 years	35.34%	3,905
20 years	6.43%	710
TOTAL		11,050

Additionally, knowing that 40% of state employees and their dependents are enrolled in the Select Benefits plan, it is reasonable to assume that approximately 40% of claims funded by state contributions are paid for claims incurred by enrollees in the Select Benefits plan. Therefore, I estimate total claims paid for both Select Benefits and Union Plans in 2008 were approximately \$155.9 million.

With this data and prevalence and per capita expenditure assumptions used to estimate the rate effect of House Bill 187 in **Section 1** above (See **Table 1**), I estimate the total increased claims for all state employees in **Table 4** below (see also **Exhibit "B"** attached for more detail). This fiscal impact translates into approximately \$1.86 to \$4.86 per government employee per month, with a mid-range estimate of \$3.02 per government employee per month.

TABLE 4: Total Estimated Claims by Age Band

Low Estimate		
Age Band	ASD Treated Prevalence for Age Band	Cost per Treated Person
2 to 4	0.25%	\$30,000
5 to 9	0.35%	\$19,660
10 to 14	0.25%	\$6,758
15 to 19	0.20%	\$2,525
20 years	0.20%	\$2,525
Total Increased Claims		\$334,990
Mid Estimate		
Age Band	ASD Treated Prevalence for Age Band	Cost per Treated Person
2 to 4	0.30%	\$36,000
5 to 9	0.45%	\$26,200
10 to 14	0.30%	\$9,000
15 to 19	0.25%	\$3,500
20 years	0.20%	\$3,500
Total Increased Claims		\$543,384

High Estimate		
Age Band	ASD Treated Prevalence for Age Band	Cost per Treated Person
2 to 4	0.45%	\$36,000
5 to 9	0.67%	\$30,500
10 to 14	0.35%	\$12,000
15 to 19	0.30%	\$3,500
20 years	0.25%	\$3,500
Total Increased Claims		\$875,452

Section 3. Long Term Considerations

The long-term savings attributable to effectively treating children with autism is significant, with cost-benefit peer review studies estimating a per capita avoided special education cost savings of \$208,500 and over \$1 million in total avoided human service cost savings per person over the lifespan.

In April 2007, Michael L. Ganz published an article in *Archives of Pediatric and Adolescent Medicine* entitled "The Lifetime Distribution of the Incremental Societal Costs of Autism," which sets forth his findings in describing "the age-specific and lifetime incremental societal costs of autism in the United States" (p. 343).¹⁴ Ganz determined that the "lifetime per capita incremental societal cost of autism is \$3.2 million" and that "[l]ost productivity and adult care are the largest components of costs" (p. 343). Based on the extant literature demonstrating the efficacy of behavioral interventions, we believe that the "lifetime per capita incremental societal cost of autism" can be mitigated substantially by services included in House Bill 187. In short, autism left untreated will result in substantial financial consequences for both public agencies and families with loved ones diagnosed with autism.

Regarding the cost-benefit of intensive ABA services, two analyses, one completed in Pennsylvania and the other in Texas, examined the future cost savings to government units resulting from investment in intensive behavioral interventions for people with autism.

The first such work, completed by John W. Jacobson, James A. Mulick, and Gina Green in 1998, notes that an abundance of research demonstrates the efficacy of early, intensive behaviorally-based interventions to enable substantial numbers of children with autism to "attain intellectual, academic, communication, social, and daily living skills within the normal range" (p. 201).¹⁵ Using representative costs

¹⁴ Ganz, Michael L. (2007). "The Lifetime Incremental Societal Costs of Autism." *Archives of Pediatric and Adolescent Medicine*. Vol. 161, Apr. 2007, pp. 343-349.

¹⁵ Jacobson, John W., James A. Mulick, and Gina Green (1998). "Cost-Benefit Estimates for Early Intensive Behavioral Intervention for Young Children with Autism - General Model and Single State Case." *Behavioral Interventions* 13, 201-226.

from Pennsylvania, including costs for special educational and adult special needs services, they found that, "At varying rates of effectiveness and in constant dollars, this model estimates that cost savings range from \$187,000 to \$203,000 per child for ages 3-22 years, and from \$656,000 to \$1,082,000 per child for ages 3-55 years (Jacobson, et al., p. 201).

More recently, Gregory S. Chasson, Gerald E. Harris, and Wendy J. Neely compared the costs of early intensive behavioral intervention ("EIBI") and special education for children with autism (cited above). Alluding to recent comparison studies that strongly suggest that "eclectic" special education programs are materially ineffective for many children with autism, the authors note that the human cost of failing to provide EIBI services is considerable. Consistent with Jacobson's et al.'s findings, Chasson et al. found that "the state of Texas would save \$208,500 per child across eighteen years of education with EIBI" (p. 401). Based on their estimate that the average annual cost associated with EIBI is approximately \$22,500, and the average duration of service is three years (see p. 402), the return on the health care investment would be 308% in avoided special education costs to the local and state taxpayer during the education years alone. It is important to note that, without treatment, persons with autism will grow to become adults dependent on publicly-funded services for their lifespan. For another third of those receiving such services early, the intensity of publicly-funded services needed in adulthood would be considerably reduced. For just less than half of those children receiving intensive EIBI services early, opportunities to be gainfully employed contributors to the tax base will only increase the return on that initial three-year investment. As Chasson et al. put it, "By implementing EIBI with all children with autism, as a way to prevent the need for special education, the investment not only produces a sizeable savings after 18 years, but it maximizes the likelihood that most of these children will return a profit long after maturation" (p. 410).

Chasson et al. posit that, "For this reason, it would behoove policy makers to reconsider the role of educational services with children with developmental disabilities. Indeed, it may mean a minimization of the education system's role in providing services and a maximization of population-specific treatment implementation by mental health practitioners. Following from this, special education would then have expanded resources to serve children who failed to mainstream into typical education despite implementation of appropriate interventions" (p. 411). "The bottom line," they write, "is that a simple change in policy could drastically improve functioning and quality of life for thousands of children with autism in Texas. As a bonus, the taxpayers could potentially save over \$2 billion across 18 years (p. 412).

Applying similar assumptions to the population served by the proposed legislation indicates that Alaska's taxpayers could save millions in avoided special education costs during the school years alone and hundreds of millions in avoided human services costs over the autistic person's lifespan.

Section 4. Other State Cost Estimates Associated with Similar Legislation

While a number of factors unique to individual states can influence the cost effect of legislation that is similar to House Bill 187, a review of cost estimate findings in states where similar legislation has been enacted, offered by proponents, opponents, and neutral sources, can reveal a useful trend to lawmakers in Alaska. During the past two years, several states have enacted legislation similar to House Bill 187, including South Carolina, Arizona, Florida, Louisiana, and Pennsylvania. Additionally, numerous other states with sophisticated mandate review processes have examined the likely cost effect resulting from mandating similar coverage. These states include Maryland, Virginia, and Oklahoma.

Due to differences in coverage criteria (e.g., ages of those covered and annual and lifetime limits), cost estimates in other states would not be directly comparable to Alaska's House Bill 187. The cost analyses completed for Pennsylvania, Maryland, and Virginia would be most instructive due to similar age limitations, amount of annual benefit limitation, and the lack of a lifetime limit, although South Carolina's costs would also be similar to Alaska's due to the relatively low per capita expenditure expected for children with autism age 16 and over. A consistent theme emerging from proponents, opponents, and independent sources, including nationally trusted actuarial firms such as Mercer, Aon, and Oliver Wyman, is that the likely cost of insuring the treatment of children with autism is relatively low, and is consistently reported to be at or below 1%. (See **TABLE 5** and **TABLE 6** below).

TABLE 5: Rate and/or Cost Effect of Similar Mandates Enacted in Other States

State/Party	Eligibility/ Disposition	Annual Cap	Lifetime Limit	Estimated % Premium Increase
Arizona	Birth to 16 yrs	\$50,000 to age 9, \$25,000 ages 10-16	None	
Key HealthCare Concepts, LLC ¹⁶	Independent			0.33%-0.69%
Florida	< 18 yrs or 18 yrs & older if in HS & have a DD dx by age 8	\$36,000	\$200,000	
Bouder, James N. ¹⁷	Proponent			0.27%-0.56%
Louisiana	< 17 yrs	\$36,000	\$144,000	
Bouder, James N. ¹⁸	Proponent			0.27%-0.56%
Louisiana Office of Group Benefits ¹⁹	Independent			0.29%
Pennsylvania	< 21 yrs	\$36,000	None	
Abt Associates ²⁰	Independent			+/- 1%
Blue Cross of Northeastern PA ²¹	Opponent			+/- 0.50%
Bouder, JN et al. ²²	Proponent			+/- 1%
Highmark Blue Shield ²³	Opponent			+/- 0.50%
PA Department of Insurance ²⁴	Independent			+/- 1%
South Carolina	< 16 yrs & Dx w/ ASD at age 8 or younger	\$50,000	None	
Governor Sanford (Veto Letter)	Opponent			+/- 1%

¹⁶ Key HealthCare Concepts, LLC (2008), *Actuarial Report Regarding Financial Impacts* [Regarding private insurance coverage for autism treatment], p. 4.

¹⁷ Bouder, JN for Autism Speaks (2008) [Financial Impact Section Only], *Report Under § 624.215(2), Fla. Stat. (2007), Assessing the Social and Financial Impacts of House Bill 1291 and Senate Bill 2654*, retrieved from <<http://www.autismvotes.org>>

¹⁸ Bouder, JN (2008), *Cost Analysis - HB 958 of 2008 (As Amended 4/30/08)* (2008), pp. 2-7, retrieved from <<http://www.autismvotes.org>>

¹⁹ *Ibid*, pp. 7-9 and Exhibit "C-2"

²⁰ Abt Associates, Inc. (2008), *Autism Spectrum Disorders Mandated Benefits Review Panel Report: Evidence Submitted Concerning Pennsylvania HB 1150*, Prepared for the Pennsylvania Health Care Cost Containment Council, retrieved from <<http://www.phc4.org>>

²¹ See Mercer (2008), *Annual Mandated Health Insurance Services Evaluation, Section 1, Coverage for Autism Spectrum Disorders*, prepared for the Maryland Health Care Commission, p. 23, evaluating Highmark Blue Shield's cost estimate submitted to the Pennsylvania Health Care Cost Containment Council.

²² Bouder, JN, Stuart Spielman, David S. Mandell (2009). *Brief Report: Quantifying the Impact of Autism Coverage on Private Insurance Premiums*, *Journal of Autism and Developmental Disorders*.

²³ See Mercer (2008), *Annual Mandated Health Insurance Services Evaluation, Section 1, Coverage for Autism Spectrum Disorders*, prepared for the Maryland Health Care Commission, p. 23, evaluating Blue Cross of Northeastern Pennsylvania's cost estimate submitted to the Pennsylvania Health Care Cost Containment Council.

²⁴ Commonwealth of Pennsylvania Insurance Department (2008), regarding the effect of Pennsylvania House Bill 1150 on commercial insurance rates, p. 8.

TABLE 6: Rate and/or Cost Effect of Similar Mandates Proposed in Other States

State/Party	Eligibility/ Disposition	Annual Cap	Lifetime Limit	Estimated % Premium Increase
Georgia	Not Specified	\$55,000	None	
Oliver Wyman ²⁵	Proponent			0.63%
Maryland	< 21 yrs	\$50,000	None	
Mercer/Oliver Wyman ²⁶	Independent			0.52%-1.22%
New Jersey	Not Specified	None	None	
Mandated Benefits Advisory Comm. ²⁷	Independent			1%
Oklahoma	< 21 yrs	\$75,000	None	
Aon (for OSEEGIB) ²⁸	Independent			0.34%-1.00%
Virginia	< 21 yrs	\$36,000	None	
Oliver Wyman ²⁹	Proponent			0.60%
West Virginia	< 24 yrs	\$75,000	None	
Bouder, James N. ³⁰	Proponent			0.82%
Public Employees Insurance Agency ³¹	Independent			1.54%

²⁵ Oliver Wyman (2009), *Actuarial Cost Estimate: Georgia Senate Bill 161 – An Act Related to Insurance Coverage for Autism*, p. 13.

²⁶ Mercer (2008), *Annual Mandated Health Insurance Services Evaluation, Section 1, Coverage for Autism Spectrum Disorders*, prepared for the Maryland Health Care Commission, pp. 30-31.

²⁷ New Jersey Mandated Benefits Advisory Commission (2006), *Evaluation of the Impact of Autism Mandated Benefits contained in Assembly Bill A-999*.

²⁸ Aon (2009), *Memorandum Regarding the Cost Impact of Oklahoma SB 1 on the Office of State Education Employees Group Insurance Board's Health Plans*.

²⁹ Oliver Wyman (2009), *Actuarial Cost Estimate: Virginia House Bill 1588 – Coverage for the Diagnosis and Treatment of Autism Spectrum Disorder*, p. 12.

³⁰ Bouder, JN (2009), *Cost Analysis – House Bill 4091 Pertaining to Private Insurance Coverage for Autism Diagnosis and Treatment*.

³¹ West Virginia Public Employee Insurance Agency (2008), *Fiscal Note Summary on Effect HB 4091 will have on Costs and Revenues of State Government*.

Conclusion

Based on my review of House Bill 187, Alaska's commercial premium and claims data and state employees' health benefits data, I believe it is reasonable to conclude that the likely cost impact of mandating coverage for the diagnosis and treatment of autism will be less than 1%, even after a sufficient provider network is established to meet the demands for services. Furthermore, given significant evidence concerning the efficacy of Applied Behavior Analysis in treating the varied symptoms of autism, Alaska can expect significant future savings in avoided special education and human services costs. Lastly, expected premium and cost impacts relating to the Alaska House Bill 187 are consistent with similar legislation enacted or pending in at least 10 other states.

Please note that my cost analysis assumes that a provider network capable of meeting the needs of all children with autism who require and seek treatment is prepared to deliver services during the first year of implementation of House Bill 187. As a practical matter, however, it takes time for providers to recruit, train, and deploy professionals, especially in markets that lack a pre-existing provider base like Florida and Pennsylvania, which the Behavior Analyst Certification Board ("BACB") reports have approximately 1,800 and 300 Board Certified Behavior Analysts ("BCBA"), respectively. By comparison, the BACB reports that the State of Alaska has two (2) BCBA's. The existence of alternative funding streams in the former two states encouraged the aggressive proliferation of Behavior Analysts, and the same can be expected in Alaska once a reliable funding stream is established. Therefore, it could be several years before Alaska experiences the full cost impact associated with House Bill 187.

It is also important to note that other factors may further reduce first year claims. House Bill 187 is currently written to require coverage for plans offered, issued for delivery, delivered, or renewed in Alaska on or after January 1, 2010. Assuming open enrollment trends in Alaska are similar to those in other states, approximately 80% of health plans renew on January 1. This could also translate into a lower claims experience during the first year of implementation.

Forecasted Rate Impact of Alaska House Bill _____

	Medical Loss Ratio	\$ Cost	% Cost
Low Estimate	85%	1,967,483	0.57%
Mid Estimate		3,169,512	0.92%
High Estimate		5,147,242	1.49%

Total Alaska Premiums Collected (est. 2010)* 345,375,804

% of Population Covered by ERISA Plans *** 54.6%

% Population Covered by Non-ERISA Plans 45.4%

	Avg./Yr.	Avg./Mo.	PMPM \$ Rate Impact (Low)	PMPM \$ Rate Impact (Mid)	PMPM \$ Rate Impact (High)	PMPY \$ Rate Impact (Low)	PMPY \$ Rate Impact (Mid)	PMPY \$ Rate Impact (High)
Average Individual Policy \$	4,683	390	2.24	3.60	5.81	26.90	43.17	69.67
Average Family Policy \$	12,351	1,029	5.91	9.49	15.31	70.95	113.86	183.75

NOTE: Source of average annual premiums from Kaiser Family Foundation "Employer Health Benefits - 2008 Annual Survey"

Population Estimate (2006) **	Total Population by Age Band		Total Insured Population by Age Band		Total Full Insured Population by Age Band		ASD Treated Prevalence for Age Band		ASD Treated Prevalence for Age Band		ASD Treated Prevalence for Age Band		Cost per Treated Person		Total \$ Cost	
	Low (1:400)	Mid (1:325)	High (1:250)	Low (45.4%)	Mid (55.9%)	High (66.6%)	Low (0.25%)	Mid (0.30%)	High (0.45%)	Low (0.25%)	Mid (0.30%)	High (0.45%)	Low	Mid	High	
2 to 4 years	29,863	16,681	7,573	15.64%	0.25%	0.25%	0.30%	0.45%	30,000	36,000	36,000	567,999	817,918	1,226,877		
5 to 9 years	47,169	26,349	11,962	24.70%	0.35%	0.35%	0.45%	0.67%	19,660	26,200	26,200	823,127	1,410,357	2,444,498		
10 to 14 years	50,714	28,329	12,861	26.56%	0.25%	0.25%	0.30%	0.35%	6,758	9,000	12,000	217,292	347,256	540,176		
15 to 19 years	52,627	29,398	13,346	27.56%	0.20%	0.20%	0.25%	0.30%	2,525	3,500	3,500	67,400	116,782	140,138		
20 years	10,575	5,907	2,682	5.54%	0.20%	0.20%	0.25%	0.25%	2,525	3,500	3,500	13,543	18,773	23,466		
TOTAL UNDER 20	190,947	106,664	48,425	100.00%					1,689,361	2,711,085	2,711,085	1,689,361	2,711,085	4,375,156		

Average Treated Prevalence Assumption 0.25%
 Average Per Capita Expenditure 12,294

Alaska % Insured
 % Children in Alaska with Private Health Insurance (CYSHCN) *** 66.6%
 % Children in Alaska with Individual Private Health Insurance 10.7%
 % Children in Alaska with Group Private Health Insurance 55.9%

Sources

- * Estimate derived from: 2008 Report of the Alaska Division of Insurance retrieved from <http://www.commerce.state.ak.us/insurance/>
- ** United States Census Bureau <http://factfinder.census.gov/>
- *** Medical Expenditure Panel Survey Report <http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/nsr/state/series_2/2005/hib2b1.pdf>
- **** Catalyst Center: State-at-a-Glance Chartbook on Coverage and Financing for Children and Youth with Special Health Care Needs, p. 43

James N. Boudier, MPA

State Worker Autism Coverage Claims Impact

Select Benefits

Category	# State Employees	Assumed # Children (State Employees)	Total Claims Paid (2008)	Total Operating Expenses	% Operating Expenses/Total Claims	Total Increase in Claims \$	\$ PMPM
State employees	6,000	4,420	62,360,104	4,143,000	6.6%		
Prevalence Rate							
Low (1:400)						133,996 \$	1.86
Mid (1:325)						217,354 \$	3.02
High (1:250)						350,181 \$	4.86

Select Benefits Data (1)

State Workers by Age Band	Age Band %	Estimated # Children by Age Band (State Employees)	ASD Treated Prevalence for Age Band			ASD Treated Prevalence for Age Band			ASD Treated Prevalence for Age Band			Total \$ Cost		
			Low	Mid	High	Low	Mid	High	Low	Mid	High	Low	Mid	High
2 to 4 years	9.68%	428	0.25%	0.30%	0.45%	30,000	36,000	36,000	32,100	46,224	69,336	63,580	108,940	188,819
5 to 9 years	20.90%	924	0.35%	0.45%	0.67%	19,660	26,200	30,500	20,646	32,994	51,324	20,646	32,994	51,324
10 to 14 years	27.65%	1,222	0.25%	0.30%	0.30%	6,758	9,000	12,000	7,888	13,668	16,401	7,888	13,668	16,401
15 to 19 years	35.34%	1,562	0.20%	0.25%	0.30%	2,525	3,500	3,500	1,434	1,988	2,485	1,434	1,988	2,485
20 years	6.43%	284	0.20%	0.20%	0.25%	2,525	3,500	3,500						
TOTAL UNDER 20		4,420				125,648	203,813	328,365						

(1) Source: Personal correspondence with State of Alaska - Department of Administration, Division of Retirement and Benefits

% of State Workers Insured by Select Benefits **40.00%**

Total State Worker Assumptions

Category	# State Employees	Assumed # Children (State Employees)	Total Claims Paid (2008)	Total Operating Expenses	% Operating Expenses/Total Claims	Total Increase in Claims \$	\$ PMPM
State employees	15,000	11,050	155,900,260	10,357,500	6.6%		
Prevalence Rate							
Low (1:400)						334,890 \$	1.86
Mid (1:325)						543,384 \$	3.02
High (1:250)						875,452 \$	4.86

(2) FTE Alaskan State Employees per 2008 Alaska Comprehensive Annual Financial Report, p. 252

Total State Worker Claims Data Estimate

State Workers by Age Band	Age Band %	Estimated # Children by Age Band (State Employees)	ASD Treated Prevalence for Age Band			ASD Treated Prevalence for Age Band			ASD Treated Prevalence for Age Band			Total \$ Cost		
			Low	Mid	High	Low	Mid	High	Low	Mid	High	Low	Mid	High
2 to 4 years	9.68%	1,070	0.25%	0.30%	0.45%	30,000	36,000	36,000	80,250	115,560	173,340	158,951	272,349	472,049
5 to 9 years	20.90%	2,310	0.35%	0.45%	0.67%	19,660	26,200	30,500	51,614	82,485	128,310	19,720	34,169	41,003
10 to 14 years	27.65%	3,055	0.25%	0.30%	0.30%	6,758	9,000	12,000	3,586	4,970	6,213	3,586	4,970	6,213
15 to 19 years	35.34%	3,905	0.20%	0.25%	0.30%	2,525	3,500	3,500						
20 years	6.43%	710	0.20%	0.20%	0.25%	2,525	3,500	3,500						
TOTAL UNDER 20		11,050				314,121	509,533	820,914						