

**James N. Boudier, MPA
1438 Mastersonville Road
Manheim, PA 17545
(717) 808-9910**

May 8, 2008

The Honorable Jay Paul Gumm
2300 N. Lincoln Blvd., Rm. 424
Oklahoma City, OK 73105

**VIA FIRST CLASS MAIL AND
ELECTRONIC MAIL**

**RE: Cost Analysis – SB 1537 of 2008, pertaining to Private Insurance
Coverage for Autism Diagnosis and Treatment**

Dear Senator Gumm:

I thank you for the opportunity to complete an analysis of the likely effect of SB 1537 on private insurance premium rates and State health care costs in the State of Oklahoma. 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, SB 1537 would require insurance policies to provide coverage for the diagnosis and treatment of autism spectrum disorder (“autism” or “ASD”) for individuals less than 21 years of age, subject to a \$75,000 annual benefit cap for behavioral therapy.

Based on my review of the available data and literature, I estimate that single policy rates will experience an increase no greater than \$1.66 per member per month (pmpm) for single policy rates and \$4.59 pmpm for family rates as a result of implementing coverage provided by SB 1537.¹ This translates into an estimated percentage rate effect of approximately 0.47%. This estimate is consistent with my findings in other states (Pennsylvania, Florida, Michigan, and Louisiana) and with the actuarial findings pertaining to similar legislation recently enacted in Arizona. A detailed narrative of my methodology is set forth below.

¹ See the *Kaiser Family Foundation and Health Research and Educational Trust* publication, “Employer Health Benefits – 2007 Annual Survey,” which reports that the average annual total premium cost for single coverage in the Midwest United States is \$4,511 and \$12,222 for family coverage.

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@thevistaschool.org.

With Kind Regards,

James N. Bouder, MPA

Cost Analysis – Senate Bill 1537 of 2008

James N. Boudier, MPA

- ✘ **Autism** is a devastating disorder affecting at least 1 in 150 children, with 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;
- ✘ **SB 1537 which passed in the Senate**, will enable thousands of children in Oklahoma to access services they need;
- ✘ The maximum likely cost of SB 1537 to the insurance ratepayer is approximately **0.47%** or **\$1.66** per policyholder per month.
- ✘ An analysis of the March 31, 2008, Fiscal Impact Report pertaining to this bill indicates a more accurate fiscal impact of \$2.18 million representing **0.44%** of total health-related claims.
- ✘ **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 forecasts a financial impact of **0.501%**; and **in Louisiana**, the consulting actuaries for the **Louisiana Office of Group Benefits** forecast a cost impact of **less than 0.50%**;
- ✘ Using medical insurance data, I have confirmed that similar legislation based on the **passed in Florida**, and **introduced in Michigan, Missouri, and Louisiana** will all have a rate effect **at or less than 0.50%**;
- ✘ With treatment, Oklahoma can save approx. \$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. See Chasson et al (2007) and Jacobson et al (1999);
- ✘ The incremental societal cost of not treating autism has been estimated to be **approximately \$3.2 million per capita**;
- ✘ **Bottom Line:** SB 1537 will (1) help very vulnerable children get the help they need, (2) cost insurance ratepayers very little (**approx. 0.5%**), and (3) save millions of dollars in avoided human services and other indirect societal costs.

Section 1. Private Insurance Premium Rate Impact

The likely, maximum premium impact of SB 1537 will be significantly less than 1%, amounting to approximately \$1.66 per member per month (pmpm) for single policy rates and \$4.59 pmpm for family rates.

Number of Eligible Beneficiaries of SB 1537

My first task in estimating the likely cost of SB 1537 is to determine how many people in Oklahoma are likely to utilize the benefits mandated by the bill.

According to estimates provided by the U.S. Census Bureau, there are approximately 943,277 persons living in Oklahoma between the ages of 2 and 20 who could be eligible for the benefits proposed in House Bill 1537.² It is also estimated that approximately 18.6% of persons living in Oklahoma under the age of 18 are uninsured.³ The number of insured persons living in Oklahoma, therefore, between the ages of 2 and 20 is approximately 767,827.

Based on information published by the Medical Expenditures Panel Survey (“MEPS”), 63.0% of private-sector enrollees working in Oklahoma are enrolled in self-insured plans (MEPS 2005 Report, p. 1).⁴ The potential pool of beneficiaries between age 2 and 20, therefore, after accounting for ERISA exemptions and the uninsured, is approximately 284,096.

Number of Potential, Eligible Beneficiaries with Autism in Oklahoma

The prevalence of autism is estimated by the CDC to be approximately 1 in 150.⁵ Given this additional data, I estimate the total number of potential beneficiaries with autism to be approximately 1,894.

Number of Likely, Eligible Beneficiaries with Autism in Oklahoma

Actuarial analyses and insurer criticisms of bills similar to SB 1537 often utilize the CDC’s statistic on epidemiological 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

² U.S. Bureau of the Census, “Table DP-1. Profile of General Demographic Characteristics: 2006 Population Estimates.”

³ 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. 113.

⁴ See Medical Expenditure Panel Survey Report (2005) at: <http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/state/series_2/2005/tiib2b1.pdf>

⁵ CDC Releases New Data on Autism Spectrum Disorders (ASDs) from Multiple Communities in the United States, February 8, 2006. <<http://www.cdc.gov/od/oc/media/pressrel/2007/r070208.htm>>. See also Prevalence of Autism Spectrum disorders; MMWR Surveillance Summaries, February 9, 2007/ 56(SS01)

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 industry and Insurance Department understanding of the range of symptom severity exhibited by people with ASD, and thus overstates the 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 SB 1537. 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).⁶ 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).⁷ 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).⁸

The consistency of these data suggest that the treated prevalence of autism is a better measure to apply to premium impact analyses because, unlike epidemiological prevalence data, which simply report the number of persons satisfying the diagnostic criteria for Autistic Spectrum Disorder, treated prevalence accounts for those persons with autism actually seeking and consuming health care services related to their disorder. Based on these findings, it is reasonable to forecast the likely beneficiaries of SB 1537 based on a treated prevalence of 1 in 500. This places the pool of likely beneficiaries of SB 1537 to be approximately 568 in number.

⁶ Leslie, Douglas L. and Andres Margin (2007) “Health Care Expenditures Associated with Autism Spectrum Disorders.” *Archives of Pediatric and Adolescent Medicine*. Vol. 161, Apr. 2007, pp. 350-355.

⁷ 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.

⁸ 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.

Cost of Services Covered Under SB 1537

Having identified the number of beneficiaries likely to seek and make significant use of services covered under SB 1537, the next step in my cost analysis is to establish the likely cost of covering these services and their potential rate effect.

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 Oklahoma Insurance Department, I estimate a combined Major Medical and HMO premium base of \$3.55 billion. An four-year rolling average forecast of 2009 premium revenue from Major Medical plans in the amount of \$2.02 billion was derived from premium revenue reported by the Oklahoma Insurance Department from 2003 through 2006. I also forecast a 2009 premium revenue sum from the Comprehensive component of HMO plans in the amount of \$1.53 billion.⁹
- Because the Insurance Department Annual Reports do not include aggregated losses from claims, I assumed an 85% Medical Loss Ratio, which is often identified as an industry standard. The Medical Loss Ratio was used to convert cost impact to revenue requirement.
- 37% of health insurance plans offered by private firms in Oklahoma that are not subject to ERISA exemption remains an accurate figure, as reported by the MEPS for 2005 (cited above).
- 100% of likely, increased costs attributable to services provided under SB 1537 will be passed on to private insurance ratepayers participating in eligible plans (i.e., private insurers will not absorb any additional costs).
- That additional, first year administrative expense adder associated with implementation of the mandated benefits coverage will be consistent with those anticipated by insurers in other states and are assumed to be approximately 10%. This adder is a first year expense only.

⁹ Oklahoma Insurance Department. *Annual Report*, from 2003 through 2006. < <http://www.oid.state.ok.us/>> **NOTE:** In 2005 and 2006, the Oklahoma Insurance Department did not report HMO premium revenue, so I relied on data published in the 2003 and 2004 reports to estimate HMO premiums. Premium revenue in the total sum includes Group Policies, and Federal Employees Health Benefits Program, Collectively Renewable, Non-Cancelable, Guaranteed Renewable, and Non-Renewable policies. Due to my inability to confirm with the Oklahoma Insurance Department the nature of Credit, Other Accident, and All Other policies included in the Annual Reports, premium revenue for these insurance categories have been excluded from the premium base for purposes of this cost analysis.

Rate Impact Analysis

In the interest of providing a range of rate impact resulting from the coverage of services included in SB 1537, 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 services covered under SB 1537 will have on private insurance ratepayers in Oklahoma (**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. 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), and Liptak et al. (2007) noted and cited above, which consistently report a treated prevalence rate of approximately 1 in 500 (or 0.20%). It is reasonable to expect, therefore, that actual utilization rates of benefits covered under SB 1537 will track more closely along treated prevalence rates noted in the abovementioned reviews of actual health care utilization data than prevalence rates reported from epidemiological studies such as the recent report of the CDC.

My research revealed that there is no existing, intensive clinical delivery system widely available to children with autism living in Oklahoma. Therefore, current Oklahoma-specific per capita expenditure data for intensive services (i.e., significant hours of service delivered over extended periods of time), public or private, was not available for my review. In order to forecast what the mean per capita expenditure would be following implementation of services covered under SB 1537, I used actual expenditure data for intensive clinical services funded by the Pennsylvania Department of Public Welfare for children under age 21 with autism and utilized by the PA Department of Insurance in their cost analysis of the effect Pennsylvania HB 1150 would have on rates. Because of the similarities between the Oklahoma and Pennsylvania legislation, I believe using Pennsylvania's existing cost data provides a conservative cost assumption, considering such demographic factors as cost of living and wage differences between Oklahoma communities and the Northeastern United States. This estimate serves as the floor of my estimated per capita cost range.

Three possible expenditure scenarios are included in my cost analysis. The first, a "changed conditions" estimate of \$17,700, is derived from the comments of the Commonwealth of Pennsylvania Insurance Department ("PA DOI") to the PA Health Care Cost Containment Council pertaining to the cost and benefit of HB 1150. Included in the PA DOI's analysis is a 20% changing conditions adder to account for increased utilization and reimbursement rates higher than the Medicaid-funded

service norm, as anticipated by PA DOI actuaries. The second is derived from a cost-benefit study completed by Gregory Chasson et al (2007), which estimated the average cost of early intensive behavioral interventions for children with autism to be approximately \$22,500 annually.¹⁰ The last expenditure scenario, considered to establish the highest parameters of potential rate impact, assumes full expenditures up to the \$75,000 cap included in SB 1537.

Table 1 below illustrates the range of likely rate impact for expenditures associated with the treatment of autism if 100% of additional costs are passed on to ratepayers. The percentage rate impact, based on treated prevalence and the lowest statistic available for uninsured children in Oklahoma, falls in the 0.37% to 1.55% range. Given the comments of the PA DOI and extant literature on average utilization and expenditure rates, there is little evidence that suggests that the mean per capita expenditure rate will reach the full capped benefit sum. The likely range of cost impact, based on actual intensive human service cost data and peer review literature, is 0.37% to 0.47%.

TABLE 1.

Source	Average Per Capita Expenditure	% Rate Impact Based on Treatment Prevalence* plus 10% Admin Costs
PA DOI Comments (2008)	17,700	0.37%
Chasson et al. (2007)	22,500	0.47%
Full Capped Expenditure	75,000	1.55%

* Assumes 18.6% uninsured rate for Persons living in Oklahoma under age 21 who also have special health care needs.

Based on statistical data published by the Kaiser Family Foundation reporting average annual single and family policy rates in 2007, single policy rates will likely experience an increase no greater \$1.66 per member per month (pmpm) and \$4.59 pmpm for family rates as a result of implementing coverage provided by SB 1537.¹¹

Section 2. State of Oklahoma OSEEGIB Fiscal Impact Report

Consistent with my findings above and actuarial findings in other states, data derived from the Oklahoma State and Education Employees Group Insurance Board (“OSEEGIB”) predict a modest cost effect of approximately 1.22% associated with

¹⁰ Chasson, Gregory S., Gerald E. Harris (2007). “Cost Comparison of Early Intensive Behavioral Intervention and Special Education for Children with Autism.” *Journal of Child and Family Studies*, Vol. 16, pp. 401-413.

¹¹ As cited above, see the *Kaiser Family Foundation and Health Research and Educational Trust* publication, “Employer Health Benefits – 2007 Annual Survey,” which reports that the average annual total premium cost for single coverage in the Midwest United States is \$4,511 and \$12,222 for family coverage.

extending mandated autism insurance coverage to Oklahoma state employees at a 1 in 150 prevalence rate. Using the more accurate 1 in 500 treated prevalence rate supported by extant epidemiological literature, the State Costs attributable to SB 1537 will be approximately 0.44%.

On March 31, 2008, the legislature released a one-page Fiscal Impact Report pertaining to “mandates on health care providers regarding treatment of autism” (Fiscal Impact Report, p. 1). The Report simply notes an impact on OSEEGIB of \$6 million per year and does not include additional data. The Report also lists “None” under the “Long Term Considerations” heading. No worksheets were attached to the Report to allow its assumptions to be readily analyzed. I have attempted to gather the inputs necessary to test the accuracy of the Fiscal Impact Report. My analysis suggests that the Impact noted on the Fiscal Impact Report is significantly overstated. Furthermore, the Fiscal Impact Report posits, I believe erroneously, that “Long Term [Fiscal] Considerations” related to SB 1537 are nonexistent. There is, in fact, considerable evidence predicting positive, long term fiscal benefits arising from extending insurance coverage to the treatment of autism.

Analysis of OSEEGIB Fiscal Impact Report

A Health Census dated March 31, 2008, obtained by me from the Oklahoma State Insurance Board, indicates that 48,474 children are currently covered by the health insurance plan administered by the OSEEGIB. Based on a 1 in 150 CDC prevalence rate, this places the number of covered children meeting the diagnostic criteria for autism at approximately 325. Using the 1 in 500 treated prevalence rate noted in detail above, the number of covered lives significantly impaired by autism, and therefore likely to require and seek significant services, is approximately 97. Furthermore, the State Insurance Board also noted that 2007 health and pharmacy claims totaled approximately \$494 million.¹²

A \$6 million cost impact on the OSEEGIB, at a 1 in 150 prevalence rate, would require an approximate per capita expenditure of \$18,500 per child meeting the diagnostic criteria for autism, and result in a percentage cost impact of 1.22%. At a more realistic treated prevalence rate of 1 in 500, the same \$6 million cost impact would require a mean expenditure of approximately \$61,900 per child, which is significantly higher than per capita cost projections reported by actuaries in other states (e.g., Arizona and Louisiana). As discussed above, however, utilizing a treated prevalence rate of 1 in 500, which better represents the number of children with autism requiring significant clinical care, and assuming a per capita expenditure rate of \$22,500 as noted in Chasson et al. (2007) cited above, the more likely OSEEGIB

¹² The Comprehensive Annual Financial Report (2006) (“CAFR”) of the OSEEGIB notes that \$692.97 million was spent on health and dental benefits in 2006 (p. 20). Staff at the State Insurance Board reported that \$475 million in 2006 was spent on health claims, with the remainder spent on pharmaceutical and dental care. While the 2007 CAFR will not be released until the end of May 2008, staff reported that health claims, sans pharmacy and dental claims, amounted to approximately \$494 million. In my analysis of the OSEEGIB impact, I contrast the likely additional cost against the health-related claims component only.

fiscal impact would be approximately \$2.18 million, or 0.44% (See Exhibit “B” attached and Table 2 below).

TABLE 2.

LIKELY OSEEGIB FISCAL IMPACT RESULTING FROM SB 1537					
	# Covered Children*	Total Health Claims Paid (2007)**	Cases of Autism	Chasson et. al. (2007)	
				\$22,500	% Claims
OSEEGIB Data	48,474	\$494,000,000			
CDC Prevalence			325	\$7.31 MM	1.48%
Treated Prevalence			97	\$2.18 MM	0.44%

* Data derived from Health Census dated March 31, 2008, obtained from Oklahoma State Insurance Board (SIB).

** Data obtained from Administrative Finance Department of SIB.

Even using an unrealistic prevalence rate of 1 in 150 for purposes of pricing SB 1537, a \$6 million fiscal impact is relatively small in the context of total claims (about 1.22%). I believe, however, that \$6 million overstates the likely fiscal impact of this legislation by either significantly overstating the treated prevalence rate or significantly overstating per capita costs. The likely cost impact on the OSEEGIB, given the number of covered children and the more accurate treated prevalence rate of 1 in 500, the fiscal impact of SB 1537 on State Costs will more likely be approximately **\$2.18 million** or **0.44%**.

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).¹³ 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

¹³ Ganz, Michael L. (2007). “The Lifetime Incremental Societal Costs of Autism.” *Archives of Pediatric and Adolescent Medicine*. Vol. 161, Apr. 2007, pp. 343-349.

cost of autism” can be mitigated substantially by services included in SB 1537. 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).¹⁴ Using representative costs 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).

¹⁴ 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.

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 SB 1537 indicates that Oklahoma’s taxpayers could save tens of 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. Notwithstanding the Fiscal Impact Report’s silence on “Long Term Considerations,” Oklahoma will realize considerable fiscal benefit over the long term after SB 1537 becomes law and children with autism can begin accessing the clinical services they need.

Summary and Conclusions

Given consistent reporting on treated prevalence, it is unreasonable to assume utilization rates will match the 1 in 150 epidemiological prevalence rate reported by the CDC. Not all children and youth with autism require significant clinical treatment to ameliorate symptoms of their disorder. Researchers and other states’ actuarial reviews of similar legislation have also found that average expenditures for persons with autism are significantly lower than the mandated \$75,000 cap included in SB 1537.

There appears to be more than sufficient evidence to conclude that meeting the health care needs of people with autism living in Oklahoma will result in a small impact on private health insurance premiums. Based on an average expenditure of \$22,500 annually noted in the professional journal article cited above, **one can reasonably forecast a rate impact of 0.47%**. This translates into approximately \$1.66 per member per month for individual policies and \$4.59 per member per month for family rates. Furthermore, the likely fiscal impact on the OSEEGIB will be consistent with the anticipated rate impact of HB 1537 on private policies, and will most probably be **approximately 0.44%**.

Lastly, given expected treatment outcomes for children with autism who gain access to ABA therapy, Oklahoma can also expect considerable long-term savings in avoided human services cost. A recent article published by Gregory Chasson et al. (2007), and cited above, estimates that early intensive behavioral interventions could save an average of \$208,500 per child during the school years along, and considerably more over the lifespan of persons affected with autism who have been able to access effective treatment.

Exhibit "A"

James N. Boudier, MPA

Forecasted Rate Impact of Oklahoma SB 1537 of 2008

	Annual Exp./Child	# Insured Total	# Insured Non-ERISA	# Persons w/ Autism Non-ERISA		Medical Loss Ratio 85.00%	\$ Cost Impact		% Cost Impact		\$ Cost + 10% Admin**		% Cost w/ 10% Admin	
				CDC Prevalence 0.67%	Treated Prevalence 0.20%		CDC Prevalence 0.67%	Treated Prevalence 0.20%	CDC Prevalence 0.67%	Treated Prevalence 0.20%	CDC Prevalence 0.67%	Treated Prevalence 0.20%	CDC Prevalence 0.67%	Treated Prevalence 0.20%
PA Insurance Commission Est. (2008)	17,700													
# Insured (18.6% Uninsured Children)		767,827	284,096	1,894	568		39,439,233	11,831,770	1.11%	0.33%	43,383,156	13,014,947	1.22%	0.37%
Chasson et al. (2007) Avg. Expenditure	22,500													
# Insured (18.6% Uninsured Children)		767,827	284,096	1,894	568		50,134,618	15,040,385	1.41%	0.42%	55,148,079	16,544,424	1.55%	0.47%
Full Capped Expenditure	75,000													
# Insured (18.6% Uninsured Children)		767,827	284,096	1,894	568		167,115,392	50,134,618	4.71%	1.41%	183,826,931	55,148,079	5.18%	1.55%
Total Premiums (Non-ERISA)	\$3,551,619,027													
Total Missouri Premiums Collected (2009)*	\$3,551,619,027													
	100%													
Total Premiums Collected	\$3,551,619,027													
% of Population Covered by ERISA Plans+	63.0%													
% Population Covered by Non-ERISA Plans	37.0%													

	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 \$	4,511	356	\$ 1.30	\$ 1.66	\$ 5.53	15.65	19.90	66.33
Average Family Policy \$	12,222	985	\$ 3.61	\$ 4.59	\$ 15.29	43.31	55.06	183.54

NOTE: Source of average annual premiums from Kaiser Family Foundation "Employer Health Benefits - 2007 Annual Survey"

Population Estimate (2006) ***	Insured Population	% of Eligible Full-Insured Market Segment (100% if no Small Business Exemption)	Prevalence Autism Among Eligible, Insured Population 0.67%	Prevalence Autism Among Eligible, Insured Population 0.20%
2 to 4 years (see note)	152,831	124,404	124,404	100.00%
5 to 9 years	241,311	196,427	196,427	
10 to 14 years	243,733	198,399	198,399	
15 to 19 years	250,905	204,237	204,237	
20 years (see note)	54,497	44,361	44,361	
TOTAL UNDER 20	943,277	767,827	767,827	1,903

NOTE: Based on 3/5 of population aged 0-5 and 1/5 of population aged 20 to 24.

OK Uninsured Rate (Children)

% Uninsured in OK (Children with Special Health Care Needs) ++ 18.6%
 # Insured Oklahoma Residents (<21) - Private Sector Firms > 50 767,827

Sources

- * Derived from Reported Premium Revenue Collected From 2003-2006, by the Oklahoma Insurance Department. See <http://www.oid.state.ok.us/index.asp>
- ** 10% assumption based on insurer testimony in other states with autism legislation pending. This administrative cost adder is a Year-One expense only.
- *** United States Census Bureau <http://factfinder.census.gov/servlet/QTTable?_bm=y&-context=qt&-qr_name=PEP_2006_EST_DP1&-ds_name=PEP_2006_EST&-CONTEXT=qt&-tree_id=806&-all_geo_types=N&-geo_id=04000US40&-search_results=01000US&-format=&-lang=>
- ++ Medical Expenditure Panel Survey Report <http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/state/series_2/2005/tiib2b1.pdf>
- ++ Catalyst Center State-at-a-Glance Chartbook on Coverage and Financing for Children and Youth with Special Health Care Needs, p. 113

Likely range of rate impact given consideration for differences in symptom severity in children diagnosed with ASD

Likely mid-range monthly premium impact resulting from Autism coverage.

Exhibit "B"

Oklahoma State and Education Employees Group Insurance Board Impact Analysis

Category	Assumed # Children (State Employees)	Total Claims Paid (2007)	Cases of Autism	PA DOI (2008)		Chasson (2007)		Full Capped		Prevalence Needed for \$6 MM OSEEGIB Impact		
				17,700	% Claims	22,500	% Claims	75,000	% Claims	Per Capita	Total Cost	% Claims
	(1)	(2)										
State employees	48,474	494,000,000										
# Cases of Autism												
<i>CDC Prevalence</i> 0.67%			325	5,748,532	1.16%	7,307,456	1.48%	24,358,185	4.93%	18,500	6,008,352	1.22%
<i>Treated Prevalence</i> 0.20%			97	1,715,980	0.35%	2,181,330	0.44%	7,271,100	1.47%	61,900	6,001,081	1.21%

(1) Data Derived from Health Census dated March 31, 2008,

(2) See the 2006 Oklahoma State and Education Employees Group Insurance Board HealthChoice Comprehensive Annual Financial Report <<http://www.sib.ok.gov/PDFfiles/CAFR.pdf>>

NOTE: Administrative Finance Department of the OK State Insurance Board reports that, in 2007, \$494,000,000 was paid in health claims

Likely OSEEGIB Impact given consideration for differences in symptom severity in children diagnosed with ASD (\$2.18 MM or 0.44%)

Per Capita Expenditure Rate and % Cost Impact Necessary for \$6 MM OSEEGIB Impact as Noted in Fiscal Impact Report