

## Cost Analysis – HB 958 of 2008 (As Amended 4/30/08)

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### Executive Summary

- ⊗ **Autism** is a devastating disorder affecting at least 1 in 150 children;
- ⊗ **Autism is treatable** – with treatment, 30 years of research has shown us that many children overcome the severe symptoms of their disorder;
- ⊗ Most private insurance policies specifically exclude coverage for treating autism, even when the service is otherwise covered by the health plan;
- ⊗ **HB 958** will enable many children in Louisiana to access services they need;
- ⊗ The maximum likely cost of HB 958 to the insurance ratepayer is from **0.27%** to **0.35%** – or **\$0.97** to **\$1.24** per member per month for individual policyholders and **\$2.69** to **\$3.42** per months for family policies;
- ⊗ **Detailed studies of similar legislation in other states** support proponents' findings that HB 958 will result in a rate impact of at or less than 1%.
- ⊗ In fact, the **State of Louisiana Office of Group Benefits** Fiscal Impact Note, dated May 7, 2008, confirms proponents' position that increased costs born by the Office of Group Benefits will be **approximately 0.29%**;
- ⊗ Other economic benefits of effectively treating autism will offset increased State Costs considerably (e.g., new jobs, avoided future special education and other human services costs, and parents' able to rejoin the workforce once the needs of their children are adequately met);
- ⊗ **Bottom Line:** HB 958 will (1) help very vulnerable children get the help they need, (2) cost insurance ratepayers very little, (3) cost the State of Louisiana very little, and (4) save the taxpayer millions of dollars in avoided human services costs.

## Cost Analysis of HB 958 of 2008

### **Section 1. Private Insurance Premium Rate Impact**

**The likely, maximum premium impact of HB 958 will be significantly less than 1%, amounting to approximately \$1.24 per member per month (pmpm) for single policy rates and \$3.42 pmpm for family rates.**

#### *Number of Eligible Beneficiaries of HB 958*

My first task in estimating the likely cost of HB 958 to private insurance rate payers is to determine how many people in Louisiana are likely to utilize the benefits mandated by the bill.

According to estimates provided by the U.S. Census Bureau, there are approximately 906,078 persons living in Louisiana between the ages of 2 and 16 who could be eligible for the benefits proposed in House Bill 958.<sup>1</sup> It is also estimated that approximately 18.9% of persons living in Louisiana under the age of 18 are uninsured.<sup>2</sup> Assuming this rate is reasonably consistent through age 16, the number of insured persons living in Louisiana, therefore, between the ages of 2 and 16 is approximately 734,829.

HB 958 includes provisions that exempt small group and individual policies from coverage. Specifically, Subsections H (1) and (2) of HB 958 read as follows:

#### **H. The provisions of this Section shall not apply to:**

- (1) Any health coverage plan issued to an employer with fifty or fewer employees.**
- (2) Individually underwritten, guaranteed renewable limited benefit health insurance policies.**

According to data published by the Medical Expenditure Panel Survey, 68% of employees working in Louisiana work in firms with 50 or more employees. Of that number, 95% of these employees work in such firms that also offer health insurance.<sup>3</sup> After adjusting for the small business and individual policy exemptions referenced above, the number of insured lives between the ages of 2 and 16 potentially affected by HB 958 is approximately 474,699.

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

<sup>2</sup> 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.77.

<sup>3</sup> See Medical Expenditure Panel Survey Report (2005), Table II at:  
<[http://www.meps.ahrq.gov/mepsweb/data\\_stats/summ\\_tables/insr/excel/2005/Louisiana2005.xls](http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/excel/2005/Louisiana2005.xls)>

Based on information published by the Medical Expenditure Panel Survey (MEPS), 59.6% of private-sector enrollees working in firms with 50 or more employees in Louisiana are enrolled in self-insured plans (MEPS 2005 Report, p. 1).<sup>4</sup> The potential pool of beneficiaries between age 2 and 16, therefore, after accounting for the individual and small business policy provisions in the bill, ERISA exemptions and the uninsured, is approximately 191,779.

*Number of Potential, Eligible Beneficiaries with Autism in Louisiana*

The prevalence of autism is estimated by the CDC to be approximately 1 in 150.<sup>5</sup> Given this additional data, I estimate the total number of potential beneficiaries with autism to be approximately 1,279.

*Number of Likely, Eligible Beneficiaries with Autism in Louisiana*

Actuarial analyses and insurer criticisms of bills similar to HB 958 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 Department utilized the 1 in 150 statistic in deriving their estimated rate impact of approximately 1.1%.

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 Autistic Spectrum Disorders. As tolerable as the Insurance Department's result may be, it inadvertently overstates the level of service required to meet the health care needs of most children with autism and, therefore, overstates the rate impact as well.

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 HB 958. 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).<sup>6</sup> 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.

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<sup>4</sup> 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](http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/state/series_2/2005/tiib2b1.pdf)>

<sup>5</sup> 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)

<sup>6</sup> 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.

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).<sup>7</sup> Similarly, in a previous article, David S. Mandell et al. reported a treated prevalence rate of youth diagnosed with autism in Allegheny County, PA (i.e., the metropolitan Pittsburgh area) of 0.2% (i.e., 1 in 500) (Mandell et al., p. 477).<sup>8</sup>

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 autism, 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 HB 958 based on a treated prevalence of 1 in 500. This places the pool of likely beneficiaries of HB 958 to be approximately 384 in number.

#### *Cost of Services Covered Under HB 958*

Having identified the number of beneficiaries likely to seek and make significant use of services covered under HB 958, 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. These assumptions are set forth below.

- After making adjustments to premium revenue data reported by the Louisiana Department of Insurance Annual Reports (“Annual Reports”) to account for the exemption of small groups based on data published by MEPS, I estimate that approximately 65%, or \$3.30 billion, of such premium revenue was collected from business firms with 50 or more employees.<sup>9</sup> I arrived at this estimate by adjusting a five-year rolling average calculation of forecasted 2009 premium revenue in the amount of \$6.25 billion, derived from premium revenue reported by the Louisiana

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<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> \$3.30 billion is derived by multiplying the total premium revenue collected by plans subject to HB 958 by the percentage of business firms with 50 or more employees that offer health insurance. See Medical Expenditure Panel Survey Report (2005), Table II at:

<[http://www.meps.ahrq.gov/mepsweb/data\\_stats/summ\\_tables/insr/excel/2005/Louisiana2005.xls](http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/excel/2005/Louisiana2005.xls)>

Department of Insurance Annual Reports from 2002 through 2006 for fully regulated health insurance plans.<sup>10</sup>

- A simple average calculation of a Medical Loss Ratio of 82.81%, derived from data in the abovementioned Annual Reports, was used to convert cost impact to revenue requirement.
- 40.4% of health insurance plans offered by firms with 50 or more employees in Louisiana that are not subject to ERISA exemption remains an accurate figure, as reported by the MEPS for 2005.
- That 100% of likely, increased costs attributable to services provided under HB 958 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.

### *Rate Impact Analysis*

In the interest of providing a range of rate impact resulting from the coverage of services included in HB 958, 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 table illustrating my methodology and a spreadsheet detailing the likely range of impact the services covered under HB 958 will have on private insurance ratepayers in Louisiana (**See Exhibits “A” and “B” 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 medical 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 HB 958 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.

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<sup>10</sup> *Annual Report*. Louisiana Department of Insurance. 2002-2003, p 105 and p.110; *Annual Report*. Louisiana Department of Insurance. 2003-2004, p 117 and p.122; *Annual Report*. Louisiana Department of Insurance. 2004-2005, p 119 and p.124; *Annual Report*. Louisiana Department of Insurance. 2005-2006, p 131 and p.136; *Annual Report*. Louisiana Department of Insurance. 2006-2007, p 125 and p.130. **NOTE:** As a precaution, I completed a sensitivity analysis of this assumption and determined that that a +/- 10% fluctuation results in changes under \$0.20 per member per month.

My research revealed that there is no existing, intensive clinical delivery system widely available to children with autism living in Louisiana. Therefore, current Louisiana-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 HB 958, 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 DOI in their actuarial analysis of the effect Pennsylvania HB 1150 would have on rates. 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 Louisiana communities and the Northeastern United States.

Three possible expenditure scenarios are included in my rate impact 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. The 20% changing conditions adder should more than account for increased utilization and reimbursement rates higher than the Medicaid-funded service norm, especially when one considers the cost savings typically seen when supply rises to meet the demand for services. The second is derived from a cost-benefit study completed by Gary Chasson et al (2007), which estimated the average cost of early intensive behavioral interventions for children with autism to be approximately \$22,500 annually (**See Exhibit "D" Attached**).<sup>11</sup> The last expenditure scenario, considered to establish the highest parameters of potential rate impact, assumes full expenditures up to the \$36,000 cap included in HB 958.

It is worth noting that my estimated range of per capita expenditure is consistent with that of the Louisiana Office of Group Benefits ("OGB"). According to calculations derived from their Fiscal Note Worksheet, OGB's mid-range 2009-10 per capita expenditure is approximately \$20,762, compared to my \$22,500.

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 Louisiana, falls in the 0.27% to 0.56% 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 0.27% to 0.35%.

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<sup>11</sup> 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.

**TABLE 1.**

Source	Average Per Capita Expenditure	% Rate Impact Based on Treated Prevalence* plus 10% Admin Costs
PA DOI Comments (2008)	17,700	0.27%
Chasson et al. (2007)	22,500	0.35%
Full Capped Expenditure	36,000	0.56%

\* Assumes 18.9% uninsured rate for Persons living in Louisiana under age 17

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 \$1.24 per member per month (pmpm) for single policy rates and \$3.42 pmpm for family rates as a result of implementing coverage provided by HB 958.<sup>12</sup>

**Section 2. State of Louisiana Office of Group Benefits Cost Analysis**

**Consistent with my findings above and actuarial findings in other states, data derived from the State of Louisiana Office of Group Benefits Fiscal Note and Worksheet predict a modest cost effect of approximately 0.29% associated with extending mandated autism insurance coverage to Louisiana state employees.**

*Analysis of Office of Group Benefits Fiscal Impact Note*

On May 7, 2008, the State of Louisiana Office of Group Benefits issued a Fiscal Note Worksheet estimating the effect of HB 958, as amended on April 30, 2008, based on claim projections provided by the Office’s consulting actuary, Mercer & Company. Following my review of the Fiscal Note Worksheet, I contacted Bruce J. Minor, the person named as preparing the revised fiscal note, and obtained Excel spreadsheets with data and calculations used to complete the Fiscal Note.

As with the original, I found the OGB’s initial year actuarial estimates to be logical and consistent with actuarial standards for expected rates under changing conditions (e.g., diagnosis creep, increased utilization, and higher reimbursement rates). Later years assume an aggressive utilization rate increase that ultimately requires a treated prevalence rate assumption that is not supported by the recent epidemiological studies cited above nor take into account market efficiencies to be realized once a viable service delivery system is established, and, in my opinion, overstate future costs. **Table 2**

<sup>12</sup> 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 Southern United States is \$4,275 and \$11,818 for family coverage.

below illustrates the forecasted state expenditure increase associated with extending coverage for services included HB 958 to state government employees.

**TABLE 2.**

<b>5-YEAR FORECASTED OGB EXPENDITURE INCREASE</b>					
	<b>2008-09*</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
<b>State Cost</b>	\$0.00 – \$0.00	\$1,869,645 – \$2,350,036	\$2,118,307 – \$2,686,796	\$2,378,224 – \$3,071,814	\$2,645,536 – \$3,512,005

\* OGB contract plan years correspond with fiscal years and, therefore, coverage under HB 958 will not be accessible to state workers until July 1, 2009.

**Table 3** below (1) shows the State Cost estimates using OGB inputs, (2) provides an estimate of future claims in order to calculate the proportion of increase OGB costs to each future fiscal year’s increased claims, and (3) shows the percentage of increased claims in proportion to the estimated future claims.

**TABLE 3.**

<b>CORRECTED 5-YEAR FORECASTED OGB EXPENDITURE INCREASE</b>					
	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
<b>Est. Claims*</b>	\$688,641,368	\$719,630,230	\$752,013,590	\$785,854,201	\$821,217,640
<b>State Cost</b>	\$0.00 – \$0.00	\$1,869,645 – \$2,350,036	\$2,118,307 – \$2,686,796	\$2,378,224 – \$3,071,814	\$2,645,536 – \$3,512,005
<b>\$ Per Capita</b>	\$0.00	\$20,762	\$23,642	\$26,815	\$30,296
<b>% Cost ↑</b>	0.00%	0.29%	0.32%	0.35%	0.38%

\* Estimated claims for FY 2009-10 through 2012-13 were not provided by OGB. In order to estimate future claims, I adjusted each fiscal year sum by a 10-year rolling average of the Medical Care component of the Consumer Price Index for All Urban Consumers (CPI-U), which average 4.18% annually.

I believe **Table 3** demonstrates that increased state costs as a result of implementing HB 958 are minor when viewed in the context of the overall cost of offering major medical coverage to employees of the State of Louisiana. In fact, the OGB’s findings are consistent with my own in Section 1 above. Namely, that the effect of providing evidence-based, medically necessary clinical services to children with autism between the ages of 2 and 16 years will not result in a drastic increase in private insurance premium rates or costs associated with self-fund plan payment of employee claims. **I and the OGB agree that the cost impact of HB 958 will be in the neighborhood of one-third of 1%.**

Other factors not considered by OGB in its Fiscal Note include such offsets as (1) avoided future special education costs for a substantial number of children who will respond positively to intensive behavioral treatment, (2) increased income tax revenue related to jobs created by implementing this measure, and (3) tax revenue generated by parents who can rejoin the Louisiana workforce because the needs of their children are being met. Considered together, I believe all of these factors will serve to decrease the State Costs attributable to offering autism insurance coverage to its employees.

For the data supporting my analysis of the OGB Fiscal Impact Note, see the Original Worksheet provided to me (**Exhibit “C-1”**) and my worksheet (**Exhibit “C-2”**) attached.

### **Section 3. Future Cost Savings**

**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.**

At the Public Hearing on April 30, 2008, several members of the House Insurance Committee, including Chairman Kleckley expressed considerable interest in the long-term fiscal implications of providing children with autism access to adequate clinical care. **Section 3** of my Cost Analysis has been expanded to describe in greater detail the deferred costs involved in failing to afford children with access to treatment and the long range fiscal benefit to extending effective treatment to Louisiana’s children living with autism.

#### *Long Term Considerations*

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).<sup>13</sup> 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, I believe that the “lifetime per capita incremental societal cost of autism” can be mitigated substantially by services included in HB 958. In short, autism left untreated will result in substantial financial consequences for both public agencies and families with loved ones diagnosed with autism.

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

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).<sup>14</sup> 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).

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

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<sup>14</sup> 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.

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 HB 958 indicates that Louisiana’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. Louisiana will realize considerable fiscal benefit over the long term after HB 958 becomes law and children with autism can begin accessing the clinical services they need. I commend the House Insurance Committee for its attention to the long term fiscal benefits to mandating coverage of these services to Louisiana’s children living with autism.

### **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 medical treatment to ameliorate symptoms of their disorder. Researchers have also found that average expenditures for persons with autism are significantly lower than the mandated \$36,000 cap included in HB 958.

There appears to be more than sufficient evidence to conclude that meeting the health care needs of people with autism living in Louisiana will result in a very small impact on private insurance premiums. Based on an average expenditure of \$22,500 annually (45% of the capped limit) noted in the professional journal article cited above, **one can reasonably forecast a rate impact of 0.35%, which is consistent with the findings of the State of Louisiana Office of Group Benefits and with findings in other states.** 0.35% translates into approximately \$1.24 per member per month for individual policies and \$3.42 per member per month for family rates.

Lastly, given expected treatment outcomes for children with autism who gain access to ABA therapy, Louisiana can also expect considerable long-term savings in avoided human services cost. A recent cost-benefit studies suggest that Louisiana could save tens of millions of dollars in avoided special education costs and hundreds of millions over the lifespan of persons affected by autism by enacting HB 958.

**Exhibit “A” – Rate Impact Formula**

$$\% RI = \frac{\left( \frac{f}{\Sigma f} \times F \right) \times \left( \bar{x} \times A \right) \div MLR}{PR}$$

<b>% RI</b>	=	Estimated Percentage Rate Impact
<b>f</b>	=	Frequency of Children in State (Aged 2-20) with Autism Based on Treated Prevalence Data
<b>Σf</b>	=	Sum of all Frequencies of Children in State (Aged 2-20) Based on Estimates from U.S. Census Bureau
<b>F</b>	=	Estimated Number of Insured Children in State (Aged 2-20) with Full-Insured, non-ERISA Exempt Health Coverage
<b><math>\bar{x}</math></b>	=	Mean Annual Per Capita Expenditure for Services for Children with Autism Adjusted for Changing Conditions
<b>A</b>	=	Assumed Load Factor for <u>First Year</u> Administrative and other Incidental Costs Associated with Proposed Mandate
<b>MLR</b>	=	Medical Loss Ratio
<b>PR</b>	=	Total Health Insurer Premium Revenue

## Exhibit "B"

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### Forecasted Rate Impact of HB 958 of 2008 (As Amended 4/30/08)

	Annual Exp./Child	# Insured Total	# Insured Non-ERISA	# Persons w/ Autism Non-ERISA		Medical Loss Ratio 82.81%	\$ 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 (18.9% Uninsured Children)		474,699	191,779	1,279	384		27,326,263	8,197,879	0.83%	0.25%	30,058,889	9,017,667	0.91%	0.27%
Chasson et al. (2007) Avg. Expenditure	22,500													
# Insured (18.9% Uninsured Children)		474,699	191,779	1,279	384		34,736,775	10,421,033	1.05%	0.32%	38,210,453	11,463,136	1.16%	0.35%
Full Capped Expenditure	36,000													
# Insured (18.9% Uninsured Children)		474,699	191,779	1,279	384		55,578,840	16,673,652	1.68%	0.51%	61,136,724	18,341,017	1.85%	0.56%
<b>Total Premiums (Non-ERISA)</b>	<b>\$</b>	<b>3,301,444,073</b>												
Total Louisiana Premiums Collected (2009)*		\$5,110,594,540												
		65%												
<b>Total Premiums Collected</b>		<b>\$5,110,594,540</b>												
% of Population Covered by ERISA Plans+		59.6%												
% Population Covered by Non-ERISA Plans		40.4%												

	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 \$	4,275	356	\$ 0.97	\$ 1.24	\$ 1.98	11.67	14.83	23.73
Average Family Policy \$	11,818	985	\$ 2.69	\$ 3.42	\$ 5.47	32.29	41.04	65.67

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

	Insured Population	Population Estimate Adjusted for Individual/Small Employer Exemption (% of Eligible Market Segment)****		Prevalence Autism Among Eligible, Insured Population		
				0.67%	0.20%	
Population Estimate (2006) ***						
2 to 4 years (see note)	180,825	146,649	94,735	64.60%	256	77
5 to 9 years	293,879	238,336	153,965		417	124
10 to 14 years	302,254	245,128	158,353		429	128
15 to 19 years	129,120	104,716	67,647		183	55
20 years (see note)	0	0	0		0	0
<b>TOTAL UNDER 20</b>	<b>906,078</b>	<b>734,829</b>	<b>474,699</b>		<b>1,285</b>	<b>384</b>

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

#### LA Uninsured Rate (Children - CDC)

% Uninsured in LA (Children with Special Health Care Needs) ++ 18.9%  
 # Insured Louisianans (<17) - Private Sector Firms > 20 474,699

#### Sources

- \* Derived from Rolling Average Calculation of Premium Revenue Collected From 2002-2006, as Reported in the LDOI Annual Reports to Effective Date of Legislation (2009)
- \*\* 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=q&-qr\\_name=PEP\\_2006\\_EST\\_DP1&-ds\\_name=PEP\\_2006\\_EST&-tree\\_id=806&-redoLog=true&-all\\_geo\\_types=N&-caller=geoselect&-geo\\_id=04000US22&-geo\\_id=04000US42](http://factfinder.census.gov/servlet/QTTable?_bm=y&-context=q&-qr_name=PEP_2006_EST_DP1&-ds_name=PEP_2006_EST&-tree_id=806&-redoLog=true&-all_geo_types=N&-caller=geoselect&-geo_id=04000US22&-geo_id=04000US42)>
- \*\*\*\* Medical Expenditure Panel Survey - MEPS-IC State Tables - Louisiana <[http://www.meps.ahrq.gov/mepsweb/data\\_stats/summ\\_tables/insr/excel/2005/Louisiana2005.xls](http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/excel/2005/Louisiana2005.xls)>
- +Medical Expenditure Panel Survey Report <[http://www.meps.ahrq.gov/mepsweb/data\\_stats/summ\\_tables/insr/state/series\\_2/2005/tiib2b1.pdf](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. 77

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



**Exhibit "C-2"**

**HB 958, Autism Mandate**  
Impact on OGB Plan Costs

**SUMMARY - ENGROSSED**

	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY12/13
Total Estimated Claims	\$ 688,641,368	\$ 717,526,962	\$ 747,234,068	\$ 778,397,028	\$ 810,720,520
\$ State Cost (Low - As Corrected)	\$ -	\$ 1,869,645	\$ 2,118,307	\$ 2,378,224	\$ 2,645,536
\$ State Cost (High - As Corrected)	\$ -	\$ 2,350,036	\$ 2,686,796	\$ 3,071,814	\$ 3,512,005
% State Cost (Low - As Corrected)	0.00%	0.26%	0.28%	0.31%	0.33%
% State Cost (High - As Corrected)	0.00%	0.33%	0.36%	0.39%	0.43%
Mid-Range Per Capita Expenditure		\$ 20,762	\$ 23,642	\$ 26,815	\$ 30,296
Mid-Range % State Cost Impact		0.29%	0.32%	0.35%	0.38%

**NOTE:** Original OGB Data Shown in Black. Boulder Calculations Based on OGB Data Shown in Blue.

**DATA**

**Child Counts**

Human	22,461
OGB	5,572
United	7,433
Total	35,466
Autistic*	101.6
% ABA Treatment	40.6
Annual Claim/Cost	36,000

\* **Note:** OGB "Autistic" number is based on assumption of 1 in 349 in Louisiana suffer from Autism

Total Costs	\$ 1,460,094
To 08/09	1.12
FY 08/09	\$ 1,635,305

FY 08/09 Claims	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY12/13
<b>Medical Care - CPI-U</b>		4.19%	4.14%	4.17%	4.15%
Medical	\$ 556,208,078				
Rx	\$ 132,433,290				
Total	\$ 688,641,368	\$ 717,526,962	\$ 747,234,068	\$ 778,397,028	\$ 810,720,520

Projected cost rate 0.00501

Autism Cost \$ 3,450,093

	FY 08/09 (1/2 year)	FY 09/10	FY 10/11	FY 11/12	FY12/13
Low Estimate	\$ -	\$ 1,869,645	\$ 2,118,307	\$ 2,378,224	\$ 2,645,536
High Estimate (Note: OGB Worksheet Calc. Error)	\$ -	\$ 2,350,036	\$ 2,686,796	\$ 3,071,814	\$ 3,512,005

**Trends**

Use	12%	11%	10%	9%	8%
Cost	0%	3%	3%	3%	3%
Total		14.3%	13.3%	12.3%	11.2%