

# Executive Summary

## The Annual Economic Impact of Alcohol in Florida

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## I. Summary

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Consequences of alcohol use impact not only the individual and their immediate families, but entire communities as well. Research has shown a causal link between alcohol use and adverse events such as traffic collisions, illnesses, injuries, and crimes (Centers for Disease Control and Prevention, 2008). These adverse events incur financial costs; though economic costs have been estimated on a national level, there has been very little research on a state specific level. This study analyzed the annual economic costs caused by alcohol use in Florida, examining in detail the burden borne by the healthcare system, the criminal justice system, and the transportation system. Such an analysis is necessary to determine the extent of the problem.

Our analysis yields the following findings for Florida:

- Over 9 billion drinks are consumed in Florida each year. Among persons who drink, this translates into 88 drinks per person every month.
- 6,276 deaths occur annually due to alcohol use. This means that 17 people lose their life every day consequent to alcohol use.
- The economic costs of alcohol attributable adverse events are estimated to be \$21,074,535,025. This means that \$2,405,769 is spent every hour consequent to alcohol use. This translates into a little over \$40,000 spent every minute due to alcohol use.
- Approximately 3% of Florida's Gross Domestic Product is spent on adverse events caused by alcohol.
- The total costs translate to approximately \$1300 per persons over the age of 12 every year.

## II. Detailed Findings

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Our research yields the following findings:

### **Injuries**

Injury costs were estimated using the willingness to pay approach. Injuries caused by alcohol use comprised the largest portion of costs at \$24,397,533.

- 5 fatal injuries occur every day consequent to alcohol use.
- \$66,842 are lost due to injuries caused by alcohol every day; this translates to \$2,785 per hour.

## **Illness**

Illness costs were estimated using the Agency for Healthcare Quality Database (2008). Illness costs include direct costs of hospital charges and work loss costs based on length of stay in hospital. There were a total of 78,668 hospitalizations as a result of alcohol use. Results indicate that over \$1,466,531,328 is spent due to alcohol caused illnesses. This translates to:

- \$4,017, 894 spent every day consequent to illnesses caused by alcohol.
- 216 hospitalizations occur every day because of alcohol.

## **Traffic Collisions**

Alcohol impact on traffic collisions were estimated using the Florida Highway Safety and Motor Vehicles Traffic Crash Statistics Report, 2007. Costs include administration costs, insurance costs, emergency costs, medical costs, lost productivity, etc. for fatal and nonfatal traffic injuries. Quality of life costs are included for alcohol attributed traffic fatalities. There were a total of 1051 fatalities due to alcohol use. There were approximately 81,205 injuries consequent to alcohol use. Total costs of adverse traffic events were \$7,273,917,609.

This means:

- 3 people die every day due to an adverse traffic event caused by alcohol.
- 9 injuries occur every hour due to an adverse traffic event caused by alcohol.
- \$3,444,329 is spent on alcohol attributable fatalities every day.
- \$269,212 is spent every hour because of an alcohol caused traffic injury.

## **Crime**

Crimes caused by alcohol were determined using the Federal Bureau of Investigation's Uniform Crime Reports, the Florida Department of Corrections 2007 report. Crime costs include incarceration costs and victim costs. Incarceration costs include total sentencing costs for all individuals admitted into Florida state prisons in one year. Victim costs include lost wages, lost productivity, medical care, quality of life, etc. The total cost of crime caused by alcohol is \$3,428,986,449.

This means:

- \$9,394,483 dollars are spent on alcohol attributable crimes per day. This means that \$391,437 is spent every hour due to alcohol attributable crimes.
- Total victim costs consequent to alcohol attributable crimes exceeds \$3,000,000,000 every year.

## Summary

Areas of Adverse Events		Costs
Illness	Direct Illnesses from Alcohol	\$572,683,320
	Illnesses attributed to Alcohol	\$452,784,647
	Alcohol related Neurological Disorders/ Fetal Alcohol Syndrome	\$432,045,575
	Work Loss	\$9,017,786
Injuries		\$8,905,099,639
Traffic Collisions	Injuries	\$2,358,340,024
	Fatalities	\$1,257,179,959
	Quality of Life	\$3,658,397,626
Crime	Incarceration	\$415,192,465
	Victim	\$3,013,793,984
<b>Total</b>		<b>\$21,074,535,025</b>

## III. Implications

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The annual economic impact of alcohol use in Florida allows for a baseline assessment of the scope of the problem. The results have significant implications for the State of Florida, particularly the healthcare system, the criminal justice system, and the transportation system. It is necessary to note that costs reported within this study are not due to direct costs related to alcohol prevention, treatment, or research, but rather are ancillary costs that are absorbed by other areas. This poses a problem as scarce resources are diverted from other areas to meet the demands of untreated alcohol use.

According to Harwood et al., (1998) the cost of alcohol abuse poses a significant economic burden within the United States. As this analysis reveals, the same is true for Florida as over \$21 billion dollars is spent on adverse events caused by alcohol. This is especially troubling in the current economic climate where budgetary constraints have led to a continuing decline of resources, especially in the field of substance abuse prevention and treatment. The Florida Department of Children and Families estimates that its funding is meeting only 30% of estimated substance abuse service needs of adults (Florida Substance Abuse and Mental Health Corporation & Florida Alcohol and Drug Abuse Association, 2008). Given the high price tag of alcohol attributed adverse outcomes, it is vital to meet treatment funding to limit ancillary costs. Investing in prevention programs and early intervention programs may also aid in containing costs.

## IV. Limitations

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The economic costs presented are conservative estimates of alcohol attributable adverse events; limitations in data availability occlude a comprehensive analysis of every incident caused by alcohol. As such, the total costs do not include every adverse incident occurring because of alcohol use. Specifically, this analysis does not include costs incurred due to alcohol prevention programs, treatment programs, and research. It also excludes quality of life costs due to nonfatal injuries and work-loss costs for fatalities. Other areas directly impacted by adverse events related to alcohol include child welfare and HIV (Florida Substance Abuse and Mental Health Corporation & Florida Alcohol and Drug Abuse Association, 2008; Miller, 2008); the costs incurred by these areas are also excluded due to data limitations.

Our analysis relies on previous methodology, national databases, and state databases (Blincoe et al., 2002; Miller et al., 1996; Miller et al., 2006a; Miller et al., 2006b; Rosen et al., 2008). National databases were utilized to gather data on adverse events related to each area of harm. Specifically, to determine total number of illnesses, the Agency for Healthcare Quality and Research Database (2008) was utilized. Injury statistics were obtained from the Florida Department of Health DeathStat Database (2007). Adverse traffic incidents were obtained from the Florida Highway Safety and Motor Vehicles: Traffic Crash and Statistics Report (2007). There were two sources of crime incidents: Federal Bureau of Investigation: Uniform Crime Reports (2008), and Florida Department of Corrections, 2007 Annual Report. These databases were utilized to gather total incident data for each area of harm. We then isolated the proportion of cases attributable to alcohol by using the Centers of Disease Control and Prevention's Alcohol Related Disease Impact Software (ARDI) (2008) and previous studies (Miller et al., 1996; Miller et al., 2006a). Costs were assigned on a per case basis.

Though we believe the methodology to be sound, statistical inferences nevertheless introduces random error and degrees of approximations. To mediate this, a conservative incidence estimation approach was employed. Nevertheless, there is a degree of approximation within this analysis.

This study will be submitted for publication in May of 2009

## V. References

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- Agency for Healthcare Database (2008). Retrieved on November 12, 2008 from <http://www.floridahealthfinder.gov/researchers/researchers.shtml>
- Blincoe L., Seay, A., Zaloshnja, E., Miller, T., Romano, E., Luchter, S., Spicer, R.S. (2002). The economic impact of motor vehicle crashes, 2000, Report No. DOT HS 809 446. National Highway Traffic Safety Administration, Department of Transportation, Washington, DC.
- Bureau of Labor Statistics (2008). Consumer Price Index Inflation Calculator. Retrieved on January 15, 2009 from [www.bls.gov/data/inflation\\_calculator.htm](http://www.bls.gov/data/inflation_calculator.htm)
- Bureau of Justice Statistics (2004). State Prison Expenditures, 2001. Retrieved on November, 2008 from <http://www.usdoj.gov>
- Beer Industry of Florida (2007). Economic Benefits. Retrieved on December 15, 2008 from <http://floridabeer.org/benefits.html>
- Beer Institute (2008). Brewer's Almanac. Retrieved from [www.beerinstitute.org/statistics.asp?bid=200](http://www.beerinstitute.org/statistics.asp?bid=200)
- Bureau of Justice Statistics (2001). Criminal Victimization in the United States, 1999: A national Crime Victimization Survey Report. U.S. Government Printing Office, Washington, DC.
- Burd, L. (n.d.) Prevalence and Cost calculators. Retrieved on November 13, 2008 from [www.online-clinic.com/content/materials/calculator.asp](http://www.online-clinic.com/content/materials/calculator.asp).
- Centers for Disease Control and Prevention (2008). Retrieved on December 12, 2008 from <http://www.cdc.gov/alcohol/ardi.htm>
- Enterprise Florida Inc. (2009). Florida Gross Domestic Product and Income. Retrieved on December 29, 2008 from <http://www.eflorida.com>
- Federal Bureau of Investigation (2008). Uniform Crime Reports. Retrieved on November 2008 from <http://www.fbi.gov/ucr/ucr.htm>
- Florida Department of Corrections Annual Report, 2006-2007. Retrieved on November 2008 from <http://www.dc.state.fl.us/pub/annual/0607/index.html>
- Florida Department of Health (2007). Florida Charts: Community Health Assessment Resource Tool Set: Population Estimates. Retrieved on November 15, 2008 from [www.floridacharts.com/charts/censusdata.aspx](http://www.floridacharts.com/charts/censusdata.aspx).
- Florida Highway Safety and Motor Vehicles (2008). Traffic Crash Statistics Report, 2007 retrieved on November 2008 from [www.flhsmv.gov](http://www.flhsmv.gov)
- Florida Substance Abuse and Mental Health Corporation, Florida Alcohol and Drug Abuse Association (2008). The Impact of Addiction on Florida's Economy.
- Harwood, H., Fountain, D., Livermore, G. (1998) The Economic Costs of Alcohol and Drug Abuse in the United States, 1992. NIH Publication No. 98-4327. Department of Health and Human Services, Rockville, MD.
- Hedlund, J.H. (1994). "If they didn't drink, would they crash anyway?" -- The role of alcohol in traffic crashes. *Alcohol, Drugs and Driving*, 110, 2, 115-125.
- Miller, T.R. (1990). The plausible range for the value of life—red herrings among the mackerels. *Journal of Forensic Economy*, 3, 17-39.
- Miller, T.R., Cohen, M.A., Wiersema, B. (1996). Victim Costs and Consequences: A New Look. National Institute of Justice.

- Miller, T.R., Levy, D.T., Cohen, M.A., Cox, K.L. (2006a) Costs of alcohol and drug-involved crime. *Prevention Science*, 7, 333-342.
- Miller, T.R., Levy, D.T., Spicer, R.S., Taylor, D.M. (2006b). Societal costs of underage drinking, *Journal of Studies on Alcohol*, 67, 4, 519-528.
- National Institute of Aging (2008). Alcohol use and abuse. Retrieved on December 18, 2008 from [www.nia.nih.gov/healthinformation/publications/alcohol.htm](http://www.nia.nih.gov/healthinformation/publications/alcohol.htm).
- Sassi, F. (2006). How to do (or not to do). . . Calculating QALYs, Comparing QALY and DALY calculations. Oxford University Press.
- The National Center on Addiction and Substance Abuse: Shoveling up: The impact of substance abuse on state budgets. The National Center on Addiction and Substance Abuse at Columbia University, New York; 2000.
- United States Department of Health and Human Services (2009). 2006-2007 State Estimates of Substance Use & Mental Health. Substance Abuse and Mental Health Services Administration, Office of Applied Statistics. Retrieved on December 17, 2008 from <http://oas.samhsa.gov/2k6State/Florida.htm>.
- Rosen, S., Miller, T., Simon, M. (2008). The cost of alcohol in California. *Alcoholism: Clinical and Experimental Research*, 32, 11, 1-12.
- Visscusi, W.K., Alday, J.E. (2003). The value of statistical life: a critical review of market estimates throughout the world. *Journal of Risk Uncertainty*, 27, 5-76.