

**The Cost of Alcohol and Illicit Drug Use
on the Eastern Shore of Maryland**

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Conducted by: BEACON
Business, Economic, and Community Outreach Network
Franklin P. Perdue School of Business
Salisbury University

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Executive Summary

The use of illicit drugs poses significant costs to the counties of the Eastern Shore of Maryland. This study is the first to estimate such societal costs at the local level.

Overall, in 2013 illicit drug and alcohol use cost the Eastern Shore counties a total of \$1.12 Billion.

Illicit Drug Use

This study is framed after a national-level study conducted by the United States Department of Justice, National Drug Intelligence Center in 2011. As in the national study, this study is conducted within a Cost of Illness (COI) framework that monetizes the consequences of drug use over a given time period, in this case annually.

In 2013, the total cost of illicit drug use in all nine counties of the Eastern Shore totaled \$831.27 million. This includes costs associated with crime, health, and productivity.

Costs associated with crime totaled \$43.84 million. These costs include criminal justice system costs (\$43.04 million), crime victims' public medical expenses (\$675K), property damage (\$79K), and crime victims' cost of lost productivity (\$48K).

Costs associated with health total \$221.77 million including \$12.55 million in specialty treatment costs, \$197.38 million in hospitalization costs, and \$11.84 million in insurance administration costs.

Lost productivity due to illicit drug use cost the Eastern Shore approximately \$565.66

million in 2013. This includes labor participation costs (\$451.9 million), lost productivity from hospitalization (\$5.81 million) and incarceration (\$49.77million).

Illicit Drug Use Statistical Summary (in Millions)		
Crime		
	Criminal Justice System	\$43.04
	Crime Victim	\$0.754
	Lost Productivity	\$0.048
	Subtotal	\$43.84
Health		
	Specialty Treatment	\$12.55
	Hospitals	\$197.38
	Insurance Administration	\$11.84
	Subtotal	\$221.77
Productivity		
	Labor Participation	\$451.94
	Specialty Treatment	\$58.14
	Hospitalization	\$5.81
	Incarceration	\$49.77
	Subtotal	\$565.66
Total		\$831.27

Alcohol Use

The societal cost of alcohol use was estimated by following the framework found in a study on the state costs of excessive alcohol consumption conducted by Sacks, Roeber, Bouchery, Gonzales, Chaloupka, and Brewer (2013). In 2013, alcohol use cost the Eastern Shore approximately \$284.3 million including \$36.39 million in health-related costs and \$199.86 million in lost productivity costs. Given the alcohol sales volume on the Eastern Shore this equates to a societal cost of \$1.09 per standard alcoholic drink.

Excessive Alcohol Consumption Statistical Summary (in Millions except where noted by *)	
Health Costs	\$36.39
Lost Productivity	\$199.86
Other Costs	\$48.05
Total	\$284.30
Other Cost Measures	
Binge Drinking	\$219.76
Underage Drinking	\$32.13
Societal Cost Per:	
Drink*	\$1.90
Capita*	\$279.70
Economic Value of Alcohol Sales	\$94.70

Policy Implications

The Eastern Shore of Maryland has an alarmingly high and growing level of need for health care services. Simultaneous to this growing need is the unfortunate reality of downward pressures on the available resources. The growing use of illicit drugs and alcohol abuse in our nine counties exacerbates these problems. In addition, the various business, economic, workforce, and community development impacts of these two growing problems require a significant response on behalf of public policy decision-makers. The scope and magnitude of the required response will mean difficult choices will have to be made. The information presented in this report can be used to inform such decisions.

Introduction

This study, conducted by the Business, Economic, and Community Outreach Network (BEACON) of the Franklin P. Perdue School of Business at Salisbury University, was commissioned by a consortium of the health departments of all nine counties on the Eastern Shore of Maryland to assess the societal impact of alcohol and illicit drug use within each county and the region as a whole. This study follows research from the U.S. Department of Justice, National Drug Intelligence Center which examined such costs at the national level.

Eastern Shore counties differ in population density, remoteness from urban areas, and economic and social characteristics. Worcester and Talbot counties are adjacent to “resort” areas that are experiencing demographic shifts. Cecil and Queen Anne’s Counties are adjacent or near growing urban areas. The economic profiles of Somerset and Caroline counties are very different than what is seen in their respective neighboring counties of Wicomico and Dorchester counties. Yet, all Eastern Shore counties share the same public health challenge:

According to the Maryland Department of Health and Mental Hygiene (DHMH), Eastern Shore communities tend to have fewer health care organizations and professionals, higher rates of chronic disease and mortality, and larger Medicare and Medicaid populations. The Shore counties suffer from substandard health and economic indicators, and do not always

receive the same quality, effective, and equitable care as their suburban counterparts. While each county is unique, in the aggregate, Shore counties have a higher median age, and higher rates of unhealthy behavior (i.e. smoking and obesity) and chronic diseases than the State averages.

DHMH estimates that the costs of caring for the Shore population will continue to increase, in part due to the Shore’s geographic isolation and lack of the critical population mass necessary to sustain a variety of primary and specialty services. Given this background, the growing societal and economic burdens of dealing with illicit drug use and alcohol on the Shore could soon exceed the region’s ability to shoulder them. This study will attempt to quantify these burdens as a way to inform the necessary regional dialog about this growing problem.

Scope of Study

This study attempts to quantify the societal costs to the each of the counties individually and as a region. In doing so, only public costs are examined, individual private costs (such as private payment of healthcare costs by victims of crime) are not included in the analysis. Costs are examined on an annual basis. Future costs are not included in the annual estimates. Intangible costs such as quality of life costs are not included in these estimates.

Slightly different methodologies were utilized to calculate illicit drug and alcohol related costs following two national-level studies conducted by the United States

Department of Justice, National Drug Intelligence Center (2011) and Sacks et al., (2013) respectively

Whenever possible the local data utilized in this study is from 2013. Where 2013 data is not available, 2012 data is utilized and inflated to 2013 dollars as noted in the study where applicable.

Following the U.S. DOJ study framework, costs are estimated using a prevalence-based approach in which estimates are based on prevalence of a disorder in a given time and the costs of treating the disorder during the same period of time.

Part I. The Impact of Illicit Drug Use

Part Ia. The Impact of Drug Use on Crime

Societal costs related to crime are broken down into two components: criminal justice system costs and victim costs. The difficulty in determining these costs stems from the attribution of alcohol or drugs as the cause of criminal activity.

Following the methodology of the U.S. Department of Justice, National Drug Intelligence Center study *The Economic Impact of Illicit Drug Use on American Society*, two classifications of offenses are considered in this study: instrumental offenses and related offenses. Instrumental offenses are defined as crimes committed to support drug use while related offenses are defined as crimes that are drug-related. Whereas, all instrumental offenses are directly attributable to drug use, related offenses may or may not be directly attributable to drug use. Rather alcohol or drug use and the offense may co-occur but not be in a cause-and-effect relationship. Therefore, only a portion of related offenses are apportioned as drug-induced.

Given that county-level or even regional-level inmate survey data is not available to estimate a local attribution rate for related offenses as used in the USDOJ (2011) study, the national attribution rates for instrumental and related offenses for each uniform crime report (UCR) offense category calculated in that study will be used as the average attribution rates in this study and applied to local arrest records data.

Criminal Justice System

All jurisdictions are burdened with the cost of maintaining a criminal justice system. These costs represent societal costs in that tax payers' dollars support these systems. Offenses attributed to illicit drug use contribute to the costs of police protection, adjudication, and correctional activities. County budgets for FY13 provided the costs for each of these areas.

In order to properly assign adjudication costs, criminal and civil cases must be differentiated. Data pertaining to the number of criminal versus civil court cases for the district courts in each county in Fiscal Year 2013 was obtained from the Maryland Judiciary Annual Statistical Abstract prepared by the Court Operations Department. Table 1 in Appendix A provides this information for each county.

The proportion of cases in FY 2013 processed as criminal cases in each of the eastern shore counties ranges from 0.31 to 0.52 with a regional average of 0.42.

To estimate the costs of local police protection attributed to drug use, the county police department budgets are multiplied by the attribution factor of 0.24 (USDOJ, 2011). To estimate the costs of adjudication attributed to drug use, the county court budgets are multiplied by the attribution of 0.24 to adjust for the proportion of cases related to drug use. This estimate is then multiplied by the proportion of cases that are criminal rather than civil in each county. To estimate the costs of corrections attributed to drug use, the county Departments of Correction budgets and the proportion of the Maryland Division of Corrections budget attributable to residents of the each of the

Eastern Shore Counties (determined by dividing the total State of Maryland Division of Corrections facilities budgets by the percent of inmates committed in FY 2013 that are residents of each jurisdiction) are multiplied by the attribution factors estimated by the USDOJ (2011) study. Given that detailed data was not available to breakdown prison, parole, and probation costs separately, the attribution rates for these costs were averaged to get an overall attribution rate for local correction and state corrections costs of .403 and .407 respectively.

The total criminal justice systems cost for drug-related offenses on the Eastern Shore is estimated to equal approximately \$43.0 million. Total costs at the county level range between approximately \$2.2 million and \$10.2 million.

Detailed results for each county and the region are presented in Table 2 in Appendix A.

Crime Victims Costs

Crime victimization costs estimates here focus on tangible losses that impact society including medical expenses, property loss, and lost productivity. Intangible costs, such as quality of life impacts and pain and suffering, are not estimated.

For all crime victimization cost component estimates the national average attribution rates of 0.12 for violent crimes and 0.31 for property crimes are used to attribute the proportion of crimes related to drug use (USDOJ, 2011).

Medical Expenses

In relation to drug induced criminal offenses, victim medical expenses stem only to violent offenses.

The average medical expenses per violent crime associated with a public payer was estimated using data from the Maryland Family Health Administration's Maryland Assessment Tool for Community Health (MATCH). Data was collected for each county the total value of medical expenses for assault for which the expected payer is Medicare, Medicaid, or other government programs. These total public costs are then divided by the number of violent crimes to obtain a per event estimate. It is assumed that the public medical costs related to property crimes are \$0.

Total public medical costs of drug-related crime victimization are approximately \$675K with per county estimates between \$0 and \$178K.

Property Loss

Property damage and destruction results in an overall loss in value to society. On the other hand, property theft, although a loss to the victim, results in a transfer of wealth rather than a net loss to society. Here, only the costs associated with loss from damage are calculated as public costs.

In 2008, the mean dollar amounts for stolen property were \$236 for violent crimes and \$993 for property crimes. Inflating these figures to 2013 dollars results in a mean of \$265 for violent crimes and \$1,115 for

property crimes. The property damage rates of 0.11 and 0.26 as reported by the USDOJ (2011) are used to estimate the lost value due to damage. Property loss is calculated as the value of stolen property multiplied by the rate at which the property is damaged multiplied by the number of events. Crime data was obtained from the Maryland Governor's Office of Crime Control and Prevention.

Total property damage costs associated with drug-related crime victimization is estimated to be approximately \$79K with per county estimates between \$3.1K and \$23K.

Lost Productivity

Lost productivity can be classified into lost workforce productivity and lost household productivity. In staying with the prevalence-based approach to calculating lost productivity, losses are estimated for the current year. The discounted value of future losses is not estimated.

As local violent crime and property crime victim counts are not available, it is assumed that each violent and each property crime have, on average, one victim.

According the USDOJ (2011) report, 7.2% of victims of personal crimes experienced loss of time from work while 7.0% of property crime victims experienced loss of time from work. This national average will be used as a proxy local level variable given that local data is not readily available.

The attribution rates from the USDOJ (2011) report were used to determine the

proportion of violent crimes (0.12) and property crimes (0.31) that are attributable to illicit drug use.

The adjusted Market Productivity Values and Home Productivity Values from the DOJ study (which utilized Grosse, et al study's figures as base MPV and HPV values) were utilized in the current study and inflated to 2013 dollars. More detailed data by age and gender could not be obtained at the county level. Therefore, the average productivity measures across age categories and genders are utilized throughout the study. This results in an average annual MPV of \$37,369 and an average annual HPV of \$14,979.

The total estimated loss of productivity of victims of violent and property crimes on the Eastern Shore is approximately \$48K with county totals ranging from \$1.3K to \$12K.

The detailed county results can be found in Table 5 in Appendix A.

Part Ib. The Impact of Illicit Drug Use on Health

Along with illicit drug use comes a number of health problems and associated costs. This section examines the cost of treating illicit drug use in specialty settings, in hospitals, treatment costs associated with illicit drug-induced homicides (not included the previous victim's cost calculations), and insurance administration costs.

Specialty Treatment

Data was obtained from each county's Department of Health in regards to public spending for prevention, treatment, and recovery support through addictions programs (these figures include treatment for both drug and alcohol addiction). This funding may come from a variety of different public funding sources including federal and state funding and grants. Table 6 in Appendix A provides the budget for such costs for each county. On the Eastern Shore, the public cost of addictions programs is nearly \$11.6 million.

Hospitals

Those admitted to hospitals for treatment related to illicit drug use is less clear than those in specialty programs. In regards to hospitals, admittance may be clearly drug-induced or may stem from conditions related to drug use. As in the USDOJ (2011) study, Hepatitis B, Hepatitis C, HIV, or Tuberculosis were examined as potentially drug-related.

Hospitalization data was obtained from the Maryland Health Services Cost Review Commission (HSCRC). Data was obtained

for in-patients and out-patients discharged from the hospital (including those receiving emergency room services) and included the number of patients discharged, average length of stay, and public payer hospital charges for patients where illicit drug use was indicated in the primary diagnosis or where Hepatitis B, Hepatitis C, HIV, or Tuberculosis was indicated in the primary diagnosis. This data was provided by age and gender. The detailed data was used in the calculations while only aggregate data is reported here as per reporting guidelines. In cost calculations both in-patient and out-patient hospital discharges are included.

For those related to drug use, attribution must be made. An attribution rate of 1.00 is used for hospital admittance that indicated illicit drugs in the primary diagnosis. Attribution rates for diagnoses related to drug use follow the national attribution rates established in the USDOJ (2011) study and can be found in Table 7 in Appendix A.

The public cost associated with hospital treatment of illicit drug-related incidents totals over \$197.38 million on the Eastern Shore.

Homicide

Fortunately, the homicide rate on the Eastern Shore of Maryland is quite low with 5 or less homicides in each county in 2012, with over half of the counties reporting 0 or 1 homicide. This figure is further reduced when considering the homicides attributed to illicit drug use. The USDOJ uses the same attribution rate (0.12) for violent offenses as it does in estimating the homicides attributable to drug use. Furthermore, the

public cost of homicides includes public medical expenses which require that the victim is alive at the time of arrival to the hospital and the medical expenses be paid by a public payer. Given the low homicide rate and these various factors, the public cost of homicides attributable to illicit drug use is currently very low on the Eastern Shore. However, as the problem of illicit drug use continues to worsen, this will not always be the case.

Insurance Administration

Many sources report insurance administration costs as a percentage of medical expenses and the estimates vary from 1% to 27%. The USDOJ (2011) utilizes an estimate of 6% of overhead on medical services. This estimate yields a cost of \$11.84 million. Table 8 in Appendix A provides a breakdown of estimated insurance administration costs by county.

Note: The 6% overhead number for the Eastern Shore of Maryland reflects a higher reliance on Medicare and Medicaid on the Shore and the relatively higher number of uninsured residents in the nine counties.

Part Ic. The Impact of Illicit Drug Use on Productivity

The resulting incapacitation for the use of illicit drug use reduces the users' productivity either at work and/or at home. Lost productivity can stem from related illness, lack of motivation, incapacitation due to treatment or incarceration, or premature mortality.

Labor Participation

The proportion of the population that are drug users was estimated using the most recent National Surveys on Drug Use and Health (2011-2012) conducted by the Substance Abuse and Mental Health Services Administration. Detailed survey results are only available down to the state level. Therefore, the estimated number of drug users at the county level is assumed to be the same as the state level, which is estimated by the Maryland survey respondents that have indicated illicit drug use in the last year. This represents approximately 10.2% of the population.

The reduction in productivity due to drug use is also assumed to equal the national estimate. Again, the average reduction in productivity and adjusted MPV and HPV were utilized here.

The same procedure was used to estimate an average number of work days and home days lost across all drug users. The average lost work days is estimated at 1.155 and the average lost home days is estimated at 0.86.

To calculate lost productivity, the estimated number of drug users in each county is multiplied by the daily MPV or HPV

(annual MPV or HPV divided by 365) multiplied by the estimated reduction in productivity (0.175).

The total cost of lost labor participation attributable to illicit drug use on the Eastern Shore is approximately \$451.94 million with county totals ranging from \$20.2 million to \$101.6 million.

The detailed results are presented in Table 9 in Appendix A.

Hospitalization

While in the hospital for treatment of drug-related illnesses a person cannot be productive in the workplace or in the home. This reduces their overall productivity and presents a cost to society.

The same procedure used in estimating hospital costs in Part Ib was followed here using the discharge and average length of stay data from HSCRC. In regards to lost productivity, only in-patient discharges are included. Tables 10 and 11 provide a breakdown of these cost estimates.

The lost productivity associated with the hospital treatment of illicit drug use totals approximately \$5.8 million on the Eastern Shore including over \$4.15 million in lost MPV and \$1.67 million in lost HPV.

Specialty Treatment

Those admitted to treatment centers are unable to realize their workforce and household productivity while in care. These estimates include those discharged from non-hospital-based residential treatment

programs. Local level data on the number and length of stay of those admitted to specialty treatment is difficult to obtain given that treatment is provided by both public and private entities. Therefore, lost productivity due to admittance into specialty treatment is estimated here based on the relationship between lost productivity due to specialty treatment as compared to hospitalization as found in the USDOJ (2011) study. In the USDOJ study, the total cost of lost productivity due to specialty treatment as compared to the total due to hospitalization for drug-related diagnosis was a ratio of 10:1. Table 12 in Appendix A shows the estimated total cost of lost productivity due to specialty treatment by applying this ratio.

The lost productivity associated with admittance into specialty treatment for illicit drug use totals approximately \$58.14 million on the Eastern Shore.

Incarceration

The estimates of individuals in jail, prison, probation, and parole status due to drug-induced and drug-related offenses is taken from Part Ia. It is assumed that individuals incarcerated for drug-induced offenses would have had the same level of productivity in their lives as the average citizen if there had been no illicit drug use.

To estimate the lost productivity of those incarcerated due to drug-related offenses the average daily population of county residents in local jails and state prisons is multiplied by the same attribution rates for corrections

used in Part Ia (0.403 and 0.407 for local and state facilities respectively). This is then multiplied by the adjusted MPV and HPV estimates used throughout the report.

Lost productivity due to incarceration from drug-related offenses on the Eastern Shore totals nearly \$49.77 million which includes nearly \$35.53 million in lost MPV and over \$14.42 million in lost HPV.

Part II. The Impact of Excessive Alcohol Use

The cost of excessive alcohol use on the Eastern Shore is again calculated by estimating the tangible costs of alcohol use. Intangible costs, such as pain and suffering, are excluded from this analysis. Excessive alcohol results in many negative consequences that impose costs on society including: increased healthcare costs, decreased productivity in the workplace and at home, and increased government spending on the criminal justice system.

In order to estimate county-level costs the Maryland state-level cost as estimated by Sacks et al (2013) is used as a baseline. This study estimates the cost to each state in 2006 as a proportion of the national costs. The total cost of excessive drinking in Maryland is estimated as \$4,172.4 million in 2006. This baseline is then adjusted to 2013 cost estimates using both the annual consumption trends in Maryland and the annual inflation rates, resulting in an estimated 2013 cost of \$3,185.6 million. The decline in cost is attributed to the declining per capita consumption in the state in all years since 2006 except for 2012 as seen in Table 15 in Appendix A.

From this baseline, county estimates are developed by calculating each county's proportion of the Maryland alcohol consumption (Comptroller of Maryland, 2013).

The total cost of excessive alcohol consumption on the Eastern Shore in 2013 is approximately \$284.30 million. County costs range from \$7.48 million to \$102.11 million.

For each state, Sacks et al. (2013) further estimated the percentage of total cost to the state that each cost category comprises. Those estimates are used here to further breakdown the costs of excessive alcohol consumption within the counties, assuming that the state breakdown is consistent across the Eastern Shore counties. It is estimated that in Maryland 44.5% of the total cost of excessive drinking represents a cost to the government (including federal and state dollars) (Sacks et al., 2013). This represents a cost to the government of \$126.51 million on the Eastern Shore. Table 16 in Appendix A provides a breakdown of government costs by county.

Part Iia. The Impact of Excessive Alcohol Use on Health

Excessive alcohol-related healthcare costs in Maryland are estimated to represent 12.8% of the total costs of excessive drinking in the state (Sacks et al., 2013). In estimating the proportion of total costs of excessive alcohol consumption attributed to healthcare costs, Sacks et al (2013) included data on the number of patients in substance abuse treatment facilities for alcohol-related problems, alcohol-attributed deaths (AADs), ambulatory care and hospital visits for alcohol-related diseases, and binge drinking episodes in women as related to fetal alcohol syndrome (FAS).

The health-related costs of excessive alcohol consumption on the Eastern Shore were approximately \$36.39 million in 2013.

Part I Ib. The Impact of Excessive Alcohol Consumption on Productivity

In Maryland, the cost of underage drinking is estimated as 70.3% of the total costs of excessive alcohol consumption [Sacks et al., 2013]. Table 18 in Appendix A provides a breakdown of the cost of lost productivity due to excessive alcohol consumption by county.

The cost of lost productivity due to excessive alcohol consumption on the Eastern Shore of Maryland was approximately \$199.86 million in 2013.

Part I Ic. Other Costs of Excessive Alcohol Consumption

In Maryland, other costs associated with alcohol consumption are approximately 16.9% of the total costs of excessive alcohol consumption [Sacks et al., 2013].

Other costs associated with alcohol consumption on the Eastern Shore of Maryland totaled approximately \$48.05 million in 2013.

Table 19 in Appendix A provides a breakdown of other costs by county. In estimating the percent of total costs attributable to “other costs” Sacks et al (2013) take into account costs such as motor vehicle crashes and fatalities related to alcohol consumption, costs of alcohol related violent and property crimes, alcohol related arrests, and corrections and fire protection costs related to alcohol consumption. Table 20 in Appendix A provides a breakdown of the buzzed and drunk driving fatalities in each county

compared to the state total as reported by National Highway Traffic Safety Administration’s Fatality Analysis Reporting System (FARS) for 2013.

Part I Id. The Cost of Binge Drinking

In Maryland, the cost of underage drinking is estimated as 77.3% of the total costs of excessive alcohol consumption [Sacks et al., 2013]. Table 22 in Appendix A provides data on binge drinking rates in each county as reported in the Behavioral Risk Factor Surveillance Survey (BRFSS). On the Eastern Shore over 35,000 people age 18 and older reported binge drinking in the year 2013, accounting for approximately 11.6% of the population.

The cost of binge drinking on the Eastern Shore of Maryland was approximately \$219.76 million in 2013.

Part I Ee. The Cost of Underage Drinking

Underage drinking includes those under the age of 21 who binge drink and/or are dependent upon alcohol. In Maryland, the cost of underage drinking is estimated as 11.3% of the total costs of excessive alcohol consumption [Sacks et al., 2013]. Tables 23, 24, and 25 in Appendix A provide detailed data on the cost components of underage drinking.

The cost of underage drinking on the Eastern Shore of Maryland was approximately \$32.13 million in 2013.

Part IIf. Per Drink and Per Capita Cost of Alcohol Consumption

In order to estimate the societal cost per alcohol drink, consumption of spirits, wine, and beer were obtained for each county from [Comptroller of Maryland, 2013]. The total number of standard drinks per type of drink was calculated by multiplying the per capita consumption by the county population multiplied by 128 ounces per gallon. This is then divided by the respective ounces per standard alcoholic drink (1.5 ounces for spirits, 5 ounces for wine, and 12 ounces for beer). The total cost of excessive drinking is then divided by the total number of standard drinks to obtain the cost per drink.

The per capita costs are calculated as the total costs divided by the county population estimates. Table 16 in Appendix A provides detailed cost estimates by county for the total societal cost of excessive drinking.

The per drink societal cost of alcohol consumption on the Eastern Shore is \$1.09. The per capita societal cost of alcohol consumption in the region is \$279.70.

Part IIg. The Economic Value of Alcohol Sales to the County's Economy

In examining the total cost of excessive use of alcohol on the Eastern Shore, the economic value of alcohol sales cannot be ignored. To estimate the economic value of alcohol sales an economic impact estimate is established using the IMPLAN and the total cost of alcohol sales from FY13 as presented in Table 14 in Appendix A. In FY13 the

economic impact of alcohol sales is estimated at approximately \$97.4 million. This economic activity supports approximately 1,400 jobs (full-time and part-time) on the Eastern Shore.

IMPLAN was originally developed by the University of Minnesota in conjunction with the United States Department of Agriculture's Forest Service. Since that time, it has been further developed by MIG, Inc. and has become the gold standard for conducting economic analysis.

The IMPLAN software uses input-output (I-O) analysis, a subset of a family of methods called social accounting models. Input-output models attempt to describe an array of economic transactions between various sectors in a defined economy for a given period, typically a year. These models provide researchers not only with estimates of the economic multipliers but also support a detailed decomposition of the multipliers.

In FY13 the economic impact of alcohol sales is estimated at approximately \$97.4 million. This economic activity supports approximately 1,400 jobs (full-time and part-time) on the Eastern Shore.

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Table 1. Proportion of Criminal vs. Civil Cases				
County	Criminal	Civil	Total	Proportion of Cases that are Criminal
Caroline	1,401	1,775	3,176	0.44
Cecil	4,469	4,143	8,612	0.52
Dorchester	1,722	2,475	4,197	0.41
Kent	710	806	1,516	0.47
Queen Anne's	1,419	1,789	3,208	0.44
Somerset	988	1,568	2,556	0.39
Talbot	1,429	1,923	3,352	0.43
Wicomico	4,733	10,528	15,261	0.31
Worcester	5,119	5,010	10,129	0.51
Eastern Shore	21,990	30,017	52,007	0.42

*These figures represent case filings

*Does not include Juvenile cases and Civil-Family Cases

Source: Court Operations Department, Maryland Judiciary

Annual Statistical Abstract Fiscal Year 2013

Table 2. Criminal Justice System Cost Summary

		Police Protection		Adjudication		Corrections		
		Proportion of arrests that are drug-related	Police Protection Costs	Proportion of cases that are criminal	Adjudication Costs	Proportion of corrections that is drug-related	Corrections	Drug Induced Costs
Caroline	Arrests	0.24	\$2,526,627					\$606,390
	Adjudication	0.24		0.44	\$1,603,367			\$169,315
	Local Jails					0.403	\$1,408,499	\$567,625
	State Prisons					0.407	\$3,585,682	\$1,459,372
	Total							\$2,802,703
Cecil	Arrests	0.24	\$9,775,148					\$2,346,035
	Adjudication	0.24		0.52	\$4,936,249			\$616,043
	Local Jails					0.403	\$9,994,318	\$4,027,710
	State Prisons					0.407	\$7,888,500	\$3,210,619
	Total							\$10,200,409
Dorchester	Arrests	0.24	\$2,455,256					\$589,261
	Adjudication	0.24		0.41	\$889,500			\$87,526
	Local Jails					0.403	\$3,526,802	\$1,421,301
	State Prisons					0.407	\$5,737,091	\$2,334,996
	Total							\$4,433,085
Kent	Arrests	0.24	\$2,538,467					\$609,232
	Adjudication	0.24		0.047	\$708,014			\$7,986
	Local Jails					0.403	\$2,426,715	\$977,966
	State Prisons					0.407	\$1,434,273	\$583,749
	Total							\$2,178,933
Queen Anne's	Arrests	0.24	\$5,868,560					\$1,408,454
	Adjudication	0.24		0.44	\$1,579,458			\$166,790
	Local Jails					0.403	\$4,308,527	\$1,736,336
	State Prisons					0.407	\$1,434,273	\$583,749
	Total							\$3,895,330

Table 2. Criminal Justice System Cost Summary (Continued)								
		Police Protection		Adjudication		Corrections		Drug Induced Costs
		Proportion of arrests that are drug-related	Police Protection Costs	Proportion of cases that are criminal	Adjudication Costs	Proportion of corrections that is drug-related	Corrections	
Somerset	Arrests	0.24	\$2,237,595					\$537,023
	Adjudication	0.24		0.39	\$1,442,145			\$134,985
	Local Jails					0.403	\$2,469,580	\$995,241
	State Prisons					0.407	\$4,302,818	\$1,751,247
	Total							\$3,418,495
Talbot	Arrests	0.24	\$1,918,737					\$460,496
	Adjudication	0.24		0.43	\$1,353,724			\$139,704
	Local Jails					0.403	\$2,593,143	\$1,045,036
	State Prisons					0.407	\$1,434,273	\$583,749
	Total							\$2,228,986
Wicomico	Arrests	0.24	\$7,399,354					\$1,775,844
	Adjudication	0.24		0.31	\$2,834,359			\$210,876
	Local Jails					0.403	\$11,078,281	\$4,464,547
	State Prisons					0.407	\$1,219,132	\$496,186
	Total							\$6,947,455
Worcester	Arrests	0.24	\$5,324,455					\$1,277,869
	Adjudication	0.24		0.51	\$2,478,067			\$303,315
	Local Jails					0.403	\$7,969,557	\$3,211,731
	State Prisons					0.407	\$5,737,091	\$2,334,996
	Total							\$7,127,912
Eastern Shore	Arrests	0.24	\$37,806,604					\$9,073,585
	Adjudication	0.24		0.51	\$16,382,738			\$2,181,766
	Local Jails					0.403	\$43,305,842	\$18,447,495
	State Prisons					0.407	\$32,773,132	\$13,338,665
	Total							\$43,041,510

Table 3. County Residents Committed to Maryland State Prisons for All Offenses			
	Males	Females	Total
Caroline	58	6	64
Cecil	140	10	150
Dorchester	94	11	105
Kent	27	0	27
Queen Anne's	24	8	32
Somerset	76	8	84
Talbot	27	4	31
Wicomico	206	24	230
Worcester	89	11	100
Eastern Shore	741	82	823

Source: Maryland Division of Correction Annual Report Fiscal Year 2013.

Table 4. Local Jail Populations	
County	Average Daily Population (2013)
Caroline	97
Cecil	271
Dorchester	160
Kent	65
Queen Anne's	112
Somerset	77
Talbot	84
Wicomico	401
Worcester	261
Eastern Shore	1,528

Source: Department of Legislative Services, Office of Public Policy. Local Jails and Detention Centers Capital Overview.

Table 5. Crime Victim Cost Summary

	Violent Crime Events*	Property Crime Events*	Crime Victim Costs Attributed to Violent Crimes							Crime Victim Costs Attributed to Property Crimes							Total Medical Costs	Total Property Damage Costs	Total Productivity Costs	Total Crime Victim Costs
			Medical Costs		Property Damage Costs	Productivity Costs			Total Costs from Violent Crime	Med Costs	Property Damage Costs	Productivity Costs			Total Costs from Property Crime					
			Average Public Cost Per Violent Crime	Medical Costs		MPV	HPV	TPV				MPV	HPV	TPV						
Caroline	115	948	\$64	\$7,389	\$402	\$117	\$35	\$153	\$7,944	\$0	\$4,372	\$2,433	\$726	\$3,159	\$7,531	\$7,389	\$4,775	\$3,311	\$15,475	
Cecil	549	3,373	\$324	\$177,842	\$1,920	\$561	\$167	\$728	\$180,491	\$0	\$20,874	\$8,655	\$2,583	\$11,239	\$32,112	\$177,842	\$22,794	\$11,967	\$212,603	
Dorchester	165	1,114	\$899	\$148,324	\$577	\$169	\$50	\$219	\$149,120	\$0	\$6,274	\$2,859	\$853	\$3,712	\$9,985	\$148,324	\$6,851	\$3,931	\$159,105	
Kent	85	356	\$496	\$42,185	\$297	\$87	\$26	\$113	\$42,595	\$0	\$3,232	\$914	\$273	\$1,186	\$4,418	\$42,185	\$3,529	\$1,299	\$47,013	
Queen Anne's	93	821	\$277	\$25,802	\$325	\$95	\$28	\$123	\$26,250	\$0	\$3,536	\$2,107	\$629	\$2,735	\$6,271	\$25,802	\$3,861	\$2,859	\$32,522	
Somerset	75	494	\$0	\$0	\$262	\$77	\$23	\$99	\$362	\$0	\$2,852	\$1,268	\$378	\$1,646	\$4,498	\$0	\$3,114	\$1,745	\$4,859	
Talbot	89	870	\$0	\$0	\$311	\$91	\$27	\$118	\$429	\$0	\$3,384	\$2,232	\$666	\$2,899	\$6,283	\$0	\$3,695	\$3,017	\$6,712	
Wicomico	554	3,362	\$223	\$123,330	\$1,938	\$566	\$169	\$735	\$126,003	\$0	\$21,064	\$8,627	\$2,575	\$11,202	\$32,266	\$123,330	\$23,002	\$11,937	\$158,269	
Worcester	186	2,216	\$805	\$149,794	\$651	\$190	\$57	\$247	\$150,692	\$0	\$7,072	\$5,686	\$1,697	\$7,384	\$14,456	\$149,794	\$7,723	\$7,630	\$165,147	
Eastern Shore	1,911	13,554	\$353	\$674,666	6,685	\$1,952	\$583	\$2,535	\$683,886	\$0	72,659	\$34,780	\$10,380	\$45,161	\$117,820	\$674,666	\$79,344	\$47,696	\$801,706	

Source: *Maryland Governor's Office of Crime Control and Prevention.

Table 6. County Spending on Specialty Treatment	
County	Spending
Caroline	\$590,801
Cecil	\$1,495,106
Dorchester	\$1,252,297
Kent	\$3,080,986
Queen Anne's	\$723,734
Somerset	\$965,000
Talbot	\$899,025
Wicomico	\$339,618
Worcester*	\$3,204,438
Eastern Shore	\$12,551,005

*Includes two regional 4 county grants

Source: County Departments of Health

These figures include public dollars going toward alcohol and drug treatment, prevention, and recovery

Table 7. Attribution Factors for Each Diagnosis		
	Male	Female
Hepatitis B	0.20	0.21
Hepatitis C	0.17	0.15
HIV	0.17	0.24
Tuberculosis	0.09	0.04

Department of Justice, National Drug Intelligence Center, 2011

Table 8. Attributed Hospitalization Costs							
	Primary Diagnosis					Total	Estimated Insurance Costs
	Illicit Drug Use	Hepatitis B	Hepatitis C	HIV	Tuberculosis		
Caroline	\$14,315,013	\$4,761	\$68,213	\$5,515	\$854,815	\$15,248,317	\$914,899
Cecil	\$48,458,878	\$116,494	\$151,264	\$42,634	\$2,662,855	\$51,432,125	\$3,085,928
Dorchester	\$20,669,657	\$24,339	\$106,847	\$99,374	\$42,445	\$20,942,662	\$1,256,560
Kent	\$10,770,536	\$5,375	\$17,757	\$11,445	\$596,895	\$11,402,008	\$684,120
Queen Anne's	\$11,795,252	\$14,738	\$36,350	\$24,692	\$45,370	\$11,916,402	\$714,984
Somerset	\$10,873,642	\$18,051	\$28,772	\$19,690	\$398,450	\$11,338,605	\$680,316
Talbot	\$13,215,145	\$10,226	\$44,700	\$10,717	\$23,335	\$13,304,123	\$798,247
Wicomico	\$36,651,901	\$196,102	\$129,478	\$84,486	\$2,720,055	\$39,782,022	\$2,386,921
Worcester	\$17,762,769	\$64,778	\$145,995	\$115,464	\$3,926,260	\$22,015,267	\$1,320,916
Eastern Shore	\$184,512,793	\$454,864	\$729,375	\$414,019	\$11,270,480	\$197,381,531	\$11,842,892

Table 9. Lost Labor Participation					
	Population*	Estimated Drug Users	Lost Productivity Attributable to Drug Use		
			MPV (Annual)	HPV (Annual)	TPV (Annual)
Caroline	32,718	3,333	\$25,176,209	\$7,514,048	\$32,690,258
Cecil	101,696	10,360	\$78,254,165	\$23,355,604	\$101,609,770
Dorchester	32,551	3,316	\$25,047,704	\$7,475,695	\$32,523,399
Kent	20,191	2,057	\$15,536,794	\$4,637,085	\$20,173,880
Queen Anne's	48,595	4,951	\$37,393,419	\$11,160,376	\$48,553,795
Somerset	26,253	2,675	\$20,201,449	\$6,029,290	\$26,230,739
Talbot	38,098	3,881	\$29,316,071	\$8,749,625	\$38,065,696
Wicomico	100,647	10,253	\$77,446,969	\$23,114,690	\$100,561,659
Worcester	51,578	5,255	\$39,688,811	\$11,845,455	\$51,534,266
Eastern Shore	452,327	46,081	\$348,061,593	\$103,881,868	\$451,943,461

Drug Users 0.101875
Reduction 0.175

Source: *United States Census Bureau, American Community Survey

Table 10. Drug-Related Hospitalizations (Full Attribution)						
		Hospital Admissions		Lost Productivity		
		Admitted In Most Recent Year	Average Length of Stay	MPV (Annual)	HPV (Annual)	TPV (Annual)
Caroline	Males	406	4.20	\$185,404	\$74,317	\$259,721
	Females	318	3.84	\$119,796	\$48,019	\$167,815
	Total	724	4.17	\$305,200	\$122,335	\$427,536
Cecil	Males	1,250	4.05	\$503,950	\$202,002	\$705,952
	Females	1,225	3.62	\$462,866	\$185,534	\$648,400
	Total	2,475	3.83	\$966,817	\$387,535	\$1,354,352
Dorchester	Males	570	4.21	\$238,429	\$95,571	\$334,000
	Females	512	3.98	\$215,196	\$86,259	\$301,455
	Total	1,082	4.10	\$453,625	\$181,830	\$635,455
Kent	Males	332	4.91	\$175,773	\$70,456	\$246,230
	Females	265	4.07	\$114,699	\$45,976	\$160,675
	Total	597	4.49	\$290,473	\$116,432	\$406,905
Queen Anne's	Males	409	4.18	\$170,460	\$68,326	\$238,786
	Females	304	3.92	\$121,425	\$48,672	\$170,096
	Total	713	4.05	\$291,885	\$116,998	\$408,883
Somerset	Males	301	4.07	\$131,339	\$52,645	\$183,984
	Females	217	3.75	\$85,481	\$34,264	\$119,744
	Total	518	3.91	\$216,819	\$86,909	\$303,728
Talbot	Males	391	4.40	\$179,790	\$72,066	\$251,856
	Females	281	4.34	\$125,510	\$50,309	\$175,819
	Total	672	4.37	\$305,300	\$122,375	\$427,675
Wicomico	Males	1,050	4.52	\$474,260	\$190,101	\$664,361
	Females	1,037	3.82	\$406,856	\$163,083	\$569,939
	Total	2,087	4.17	\$881,117	\$353,184	\$1,234,301
Worcester	Males	497	4.42	\$233,719	\$93,683	\$327,403
	Females	415	3.88	\$166,194	\$66,617	\$232,811
	Total	912	4.15	\$399,914	\$160,300	\$560,214
Eastern Shore	Males	5,206	4.33	\$2,293,125	\$919,168	\$3,212,293
	Females	4,574	3.91	\$1,818,025	\$728,730	\$2,546,755
	Total	9,780	4.14	\$4,111,149	\$1,647,898	\$5,759,048

Source: Maryland Health Services Cost Review Commission

**Due to many age categories reporting less than 6 admissions, only aggregate figures for males and females are reported

Table 11. Drug-Related Hospitalizations (Partial Attribution)					
	Hospital Admissions		Lost Productivity		
	Admitted In Most Recent Year	Average Length of Stay	MPV (Annual)	HPV (Annual)	TPV (Annual)
Caroline	28	3.10	\$1,681	\$674	\$2,354
Cecil	74	6.03	\$6,987	\$2,801	\$9,787
Dorchester	67	4.98	\$6,234	\$2,499	\$8,732
Kent	10	4.06	\$961	\$385	\$1,346
Queen Anne's	35	3.91	\$2,374	\$952	\$3,325
Somerset	18	5.90	\$2,065	\$828	\$2,893
Talbot	36	3.13	\$2,034	\$815	\$2,849
Wicomico	93	4.69	\$9,000	\$3,607	\$12,607
Worcester	78	4.31	\$6,858	\$4,686	\$11,544
Eastern Shore	439	4.46	\$38,193	\$17,246	\$55,439

Source: Maryland Health Services Cost Review Commission

*Due to small numbers of cases of each related diagnosis only aggregate figures for Hepatitis B, Hepatitis C, HIV, and TB are reported here. The attribution rates for each diagnosis was calculated individually before aggregation.

Table 12. Lost Productivity Due to Specialty Treatment	
County	Estimated TPV
Caroline	\$4,298,900
Cecil	\$13,641,390
Dorchester	\$6,441,870
Kent	\$4,082,510
Queen Anne's	\$4,122,080
Somerset	\$3,066,210
Talbot	\$4,305,240
Wicomico	\$12,469,080
Worcester	\$5,717,580
Eastern Shore	\$58,144,870

Table 13. Lost Productivity Due to Incarceration					
	Incarcerated Populations		Lost Productivity		
	Jails*	State Prisons**	MPV	HPV	TPV
	(ADP)	(ADP)	(Total)	(Total)	(Total)
Caroline County	97	64	\$2,434,204	\$975,718	\$3,409,922
Cecil County	271	150	\$6,362,623	\$2,550,371	\$8,912,995
Dorchester County	160	105	\$4,006,558	\$1,605,975	\$5,612,533
Kent County	65	27	\$1,389,543	\$556,980	\$1,946,523
Queen Anne's County	112	32	\$2,173,403	\$871,179	\$3,044,583
Somerset County	77	84	\$2,437,194	\$976,916	\$3,414,110
Talbot County	84	31	\$1,736,518	\$696,060	\$2,432,578
Wicomico County	401	230	\$9,537,153	\$3,822,838	\$13,359,991
Worcester County	261	100	\$5,451,558	\$2,185,183	\$7,636,741
Eastern Shore Total	1,528	823	\$35,528,755	\$14,241,219	\$49,769,974

Sources:

*Department of Legislative Services, Office of Public Policy. Local Jails and Detention Centers Capital Overview.

** Maryland Division of Correction Annual Report Fiscal Year 2013.

Table 14. County Alcohol Consumption as Percent of State Total								
	Per Capita Consumption				Population	Total Consumption	Percent of Maryland Total	Total Societal Cost
	Spirits	Wine	Beer	Total				
Caroline	1.53	1.44	21.59	24.56	32,718	803,554	0.4%	\$ 13,355,539
Cecil	30.2	3.18	27.03	60.41	101,696	6,143,455	3.2%	\$ 102,107,826
Dorchester	1.62	1.84	22.47	25.93	32,551	844,047	0.4%	\$ 14,028,563
Kent	2.46	3.96	23.41	29.83	20,191	602,298	0.3%	\$ 10,010,538
Queen Anne's	2.06	1.8	23.93	27.79	48,595	1,350,455	0.7%	\$ 22,445,354
Somerset	1.08	1.25	14.81	17.14	26,253	449,976	0.2%	\$ 7,478,872
Talbot	2.41	5.9	19.49	27.8	38,098	1,059,124	0.6%	\$ 17,603,268
Wicomico	1.05	1.93	19.68	22.66	100,647	2,280,661	1.2%	\$ 37,905,922
Worcester	7.4	5.52	56.33	69.25	51,578	3,571,777	1.9%	\$ 59,365,017
Eastern Shore	5.53	2.98	25.42	33.93	452,327	17,105,348	8.9%	\$ 284,300,898

Source: Comptroller of Maryland. Alcohol & Tobacco Tax Annual Report Fiscal Year 2013.

Table 15. Maryland Alcohol Consumption	
	Change in Per Capita Consumption
2013	-5.44%
2012	7.84%
2011	-9.40%
2010	-1.18%
2009	-18.06%
2008	-10.38%
2007	-1.39%

Source: Comptroller of Maryland. Alcohol & Tobacco Tax Annual Report Fiscal Year 2013.

Table 16. County Alcohol Consumption as Percent of State Total

	Total Costs				Government Costs (\$)		
	Total Cost (in Millions)	Number of Standard Drinks	Cost Per Drink	Per Capita Cost	Cost (Millions)	Cost Per Drink	Per Capita cost
Caroline	\$13.36	13,012,516	\$1.03	\$408	\$5.94	\$0.46	\$181.65
Cecil	\$102.11	63,807,596	\$1.60	\$1,004	\$45.44	\$0.71	\$446.80
Dorchester	\$14.03	13,834,956	\$1.01	\$431	\$6.24	\$0.45	\$191.78
Kent	\$10.01	11,327,205	\$0.88	\$496	\$4.45	\$0.39	\$220.63
Queen Anne's	\$22.45	23,185,646	\$0.97	\$462	\$9.99	\$0.43	\$205.54
Somerset	\$7.48	7,406,846	\$1.01	\$285	\$3.33	\$0.45	\$126.77
Talbot	\$17.60	21,509,623	\$0.82	\$462	\$7.83	\$0.36	\$205.61
Wicomico	\$37.91	35,118,556	\$1.08	\$377	\$16.87	\$0.48	\$167.60
Worcester	\$59.37	70,850,842	\$0.84	\$1,151	\$26.42	\$0.37	\$512.18
Eastern Shore	\$284.30	260,053,786	\$1.09	\$629	\$126.51	\$0.49	\$279.70

Source: Comptroller of Maryland. Alcohol & Tobacco Tax Annual Report Fiscal Year 2013.

Table 17. Healthcare Costs Related to Excessive Alcohol Consumption	
	Cost (in Millions)
Caroline	\$1.71
Cecil	\$13.07
Dorchester	\$1.80
Kent	\$1.28
Queen Anne's	\$2.87
Somerset	\$0.96
Talbot	\$2.25
Wicomico	\$4.85
Worcester	\$7.60
Eastern Shore	\$36.39

Table 18. Productivity Costs Related to Excessive Alcohol Consumption	
	Cost (in Millions)
Caroline	\$9.39
Cecil	\$71.78
Dorchester	\$9.86
Kent	\$7.04
Queen Anne's	\$15.78
Somerset	\$5.26
Talbot	\$12.38
Wicomico	\$26.65
Worcester	\$41.73
Eastern Shore	\$199.87

Table 19. Other Costs of Excessive Alcohol Consumption	
	Cost (in Millions)
Caroline	\$2.26
Cecil	\$17.26
Dorchester	\$2.37
Kent	\$1.69
Queen Anne's	\$3.79
Somerset	\$1.26
Talbot	\$2.97
Wicomico	\$6.41
Worcester	\$10.03
Eastern Shore	\$48.04

Table 20. 2012 Drunk Driving Crash Fatalities				
County	Buzzed Driving	Drunk Driving	Total	% of State Total
	BAC 0.01-0.07	BAC 0.08+		
Caroline	0	2	2	1%
Cecil	0	2	2	1%
Dorchester	0	0	0	0%
Kent	0	1	1	0%
Queen Anne's	0	3	3	1%
Somerset	0	3	3	1%
Talbot	2	0	2	1%
Wicomico	0	2	2	1%
Worcester	2	7	9	4%
Eastern Shore	4	20	24	12%
Maryland	39	163	202	100%

Source: National Highway Traffic Safety Administration: Fatality Analysis Reporting System (FARS) 2012

Table 21. Total Alcohol-Related Deaths	
	2013
Caroline	1
Cecil	9
Dorchester	0
Kent	1
Queen Anne's	1
Somerset	1
Talbot	2
Wicomico	6
Worcester	1
Eastern Shore Area	22
Maryland	239

Source: Maryland Department of Health and Mental Hygiene

Table 22. Cost of Binge Drinking	
	Cost (in Millions)
Caroline	\$10.32
Cecil	\$78.93
Dorchester	\$10.84
Kent	\$7.74
Queen Anne's	\$17.35
Somerset	\$5.78
Talbot	\$13.61
Wicomico	\$29.30
Worcester	\$45.89
Eastern Shore	\$219.76

Table 23. Estimated Binge Drinking in Population 18 and older						
	Total		Male		Female	
	Binge Drinkers	% of Population 18 and Over	Binge Drinkers	% of Population 18 and Over	Binge Drinkers	% of Population 18 and Over
Caroline	2,868	11.6%	1,790	16.4%	1,078	7.9%
Cecil	8,069	10.9%	4,410	13.5%	3,659	8.9%
Dorchester	2,180	8.4%	1,594	11.5%	586	4.8%
Kent	2,638	17.6%	2,073	29.6%	565	7.1%
Queen Anne's	3,292	10.4%	1,401	9.5%	1,891	11.2%
Somerset	1,187	8.6%	749	14.4%	438	5.1%
Talbot	3,726	13.4%	2,709	19.3%	1,017	7.4%
Wicomico	8,162	13.6%	5,834	21.7%	2,328	7.0%
Worcester	2,915	9.7%	1,834	15.3%	1,081	6.0%
Eastern Shore	35,037	11.6%	22,394	16.3%	12,643	7.6%
Maryland	617,900	14.2%	387,999	18.9%	229,901	10.1%

Source: Behavioral Risk Factor Surveillance Survey

Table 24. Alcohol-Related Suspensions and Expulsions from Maryland Public Schools, School Year 2012-2013		
	Count	Percent of State Total
Caroline	2	0%
Cecil	8	1%
Dorchester	10	1%
Kent	4	1%
Queen Anne's	5	1%
Somerset	2	0%
Talbot	2	0%
Wicomico	17	2%
Worcester	7	1%
Eastern Shore Area	57	8%
Maryland	711	100%

Source: Maryland State Department of Education
Includes: in-school suspension, out-of-school suspension, and expulsions

Table 25. Costs of Underage Drinking	
	Cost (in Millions)
Caroline	\$1.51
Cecil	\$11.54
Dorchester	\$1.59
Kent	\$1.13
Queen Anne's	\$2.54
Somerset	\$0.85
Talbot	\$1.99
Wicomico	\$4.28
Worcester	\$6.71
Eastern Shore	\$38.51

Appendix B. Acronyms

AAD	Alcohol-Attributed Deaths
ADP	Average Daily Population
BRFSS	Behavioral Risk Factor Surveillance Survey
COI	Cost of Illness
ICD	International Classification of Diseases
FAS	Fetal Alcohol Syndrome
FY	Fiscal Year
HPV	Home Productivity Value
HSCRC	Health Services Cost Review Commission
MATCH	Maryland Assessment Tool for Community Health
MPV	Market Productivity Value
NSDUH	National Surveys on Drug Use and Health
SAMHSA	Substance Abuse and Mental Health Services Administration
TPV	Total Productivity Value
UCR	Uniform Crime Report
USDOJ	United States Department of Justice

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