

Joint Legislative Audit and Review Commission

Estimating the Costs of Substance Abuse in Virginia

Joint Subcommittee on Substance Abuse
Prevention and Treatment

October 21, 2009

Study Mandate : HJR 683, SJR 395 (2007)

- JLARC directed to
 - Study impact of substance abuse on **State and local budgets**
 - Determine savings from enhanced substance abuse services

In This Presentation

- Estimating the Impact of Substance Abuse on the State and Localities
- Determining Savings That Could Result From Enhanced Substance Abuse Services



JLARC Cost Estimate Regarded as “Low” by Some Stakeholders

- JLARC estimated cost of substance abuse to State and local governments = \$613 M in 2006
 - Range from \$359 M to \$1.3 B
- National studies estimate total costs to Virginia citizens at \$10 B
- CASA study estimated the impact of substance abuse on federal, State & local budgets in Virginia at \$2.8 B



Three Factors Explain Why JLARC Estimate Seems Lower Than Other Studies

- Includes only costs incurred by the State and local governments
- Focuses on costs that can be estimated with high confidence
- Relies on Virginia data rather than extrapolations from other state/national findings



Several Parties Bear the Costs of Substance Abuse

	Government			Private	Individual
	Local	State	Federal		
Total Costs	✓	✓	✓	✓	✓
JLARC Cost Estimate	✓	✓			
Example: Drunk driving accident with injuries	<ul style="list-style-type: none"> ▪ Fire/Rescue ▪ Police ▪ Court ▪ Jail 	<ul style="list-style-type: none"> ▪ Fire/Rescue ▪ Police ▪ Court ▪ Jail 	<ul style="list-style-type: none"> ▪ Fire/Rescue ▪ Police ▪ Court ▪ Jail 	<ul style="list-style-type: none"> ▪ Car and health insurance 	<ul style="list-style-type: none"> ▪ Insurance deductibles ▪ Lost income from missed work



Why Focus on State and Local Costs?

- To estimate the burden that substance abuse places on the Virginia budget
- To understand how much State and local governments could save by investing in better treatment and prevention programs



Literature Review Used as Starting Point for JLARC Study Methodology

- Reviewed literature from 1981 to 2008 to design most robust Virginia study
 - Identify all the negative effects of substance abuse
 - Determine which of these effects result in costs to the State and local governments
 - Evaluate methodologies used to quantify costs



Studies Show That Substance Abuse Has Numerous Adverse Effects

Category	Adverse Effects	Fiscal Impact on State and Localities
■ Public safety	<ul style="list-style-type: none"> - Drug and alcohol crimes and violations - Motor vehicle crashes - Fires 	<ul style="list-style-type: none"> - Law enforcement - Adjudication and corrections - Emergency personnel
■ Health outcomes	<ul style="list-style-type: none"> - Diseases attributable to substance abuse - Longer hospital stays 	<ul style="list-style-type: none"> - Medicaid - Uninsured - State & local employees
■ Social well-being	<ul style="list-style-type: none"> - Child abuse & neglect - Foster care - Reliance on benefit programs 	<ul style="list-style-type: none"> - Child protective services - Foster care system - TANF, Food Stamps
■ Economic productivity	<ul style="list-style-type: none"> - Lower employment levels - Lower wages - Absenteeism 	<ul style="list-style-type: none"> - Foregone taxes - Reduced State and local employee productivity



Many Prior Studies Used Unsubstantiated or Flawed Assumptions to Estimate Costs

- Limited foundation for the proportion of negative consequences attributed to substance abuse
 - Little **quantitative** research on link between alcohol & crime
 - Single study examined impact on additional hospital days
 - Research unable to **isolate** impact of substance abuse vs. other factors on child abuse and foster care placements
- Outdated estimates of relationship to substance abuse
 - Impact on dependency reviewed pre-welfare reform
 - Alcohol-caused fires studied in 1960s
- Inaccurate assumptions built upon each other
 - Lost productivity based on assumed employability, job availability, etc.
- Co-occurrence vs. causation
 - Ever used drugs/alcohol vs. used at the time of a crime

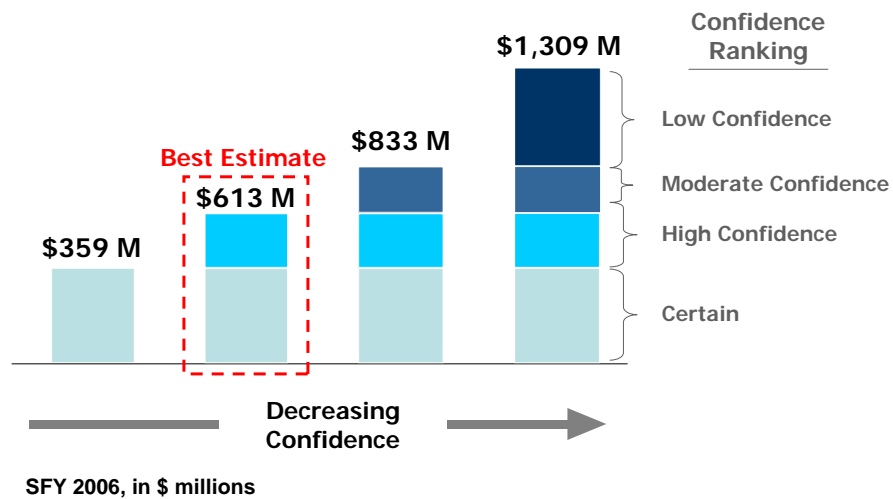


Confidence Rankings Reflect How Believable Each Cost Estimate Likely to Be

Degree of Confidence

Certain	High	Moderate	Low
<ul style="list-style-type: none"> Drug/alcohol violations by substance abusers 	<ul style="list-style-type: none"> Drug-related crimes Motor vehicle crashes with impaired driver Certain diseases 	<ul style="list-style-type: none"> Alcohol-related crimes Additional hospital days Child abuse and neglect Foster care 	<ul style="list-style-type: none"> Drug and alcohol crimes committed by non-abusers Fires Reliance on benefit programs Foregone taxes from reduced economic productivity

Estimated Impact of Substance Abuse on State and Local Budgets Varies Based on Confidence Ranking



Cost Estimates Based on Virginia-Specific Population Data (2006)

Category	Selected Virginia Data Obtained
■ Public safety	<ul style="list-style-type: none">– Arrests for substance abuse-related crimes– Days in jail, prison, juvenile justice facilities, and probation for substance abuse-related crimes– Number of motor vehicle crashes by drinking status– State and local expenditures on law enforcement, adjudication, corrections, and fire & rescue
■ Health outcomes	<ul style="list-style-type: none">– Claims for substance abuse-related conditions filed through Medicaid and State employee health plan– Uncompensated care provided by hospitals for substance abuse-related conditions
■ Social well-being	<ul style="list-style-type: none">– Number of children in foster care with indication of substance abuse– State and local expenditures on foster care, CPS, benefit programs
■ Economic productivity	<ul style="list-style-type: none">– Days of work lost directly due to incarceration for substance abuse-related crimes



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Impact of Substance Abuse Services Evaluated For All Programs Where Data Available

- CSB services
 - Non-offenders
 - Former offenders
 - Offenders on probation
 - Jail inmates
- Drug courts
 - Richmond and Chesterfield only
- Therapeutic and transitional therapeutic communities offered to prison and jail inmates



Rigorous Methodology Used to Calculate Cost Savings Resulting From Treatment Programs

- Tracked 5,500 Virginians receiving treatment in 2005
 - Linked treatment participants to administrative records from 10 agencies
 - Created comparison groups controlling for key characteristics
- Compared costs imposed by each individual after receiving treatment to
 - Costs imposed before treatment
 - Costs imposed by similar individuals who did not receive treatment
- Compared employment and recidivism experience of each individual after treatment to
 - Experience prior to treatment
 - Experience of similar individuals who did not receive treatment



Finding

- Most populations examined for this study imposed lower net costs after treatment, relative to not completing treatment
- Majority of populations also experienced better recidivism and employment outcomes



Limitations From JLARC Evaluation of Treatment Programs

- Not all programs evaluated due to data limitations
- Estimates reflect single point-in-time
- Specific services could not be evaluated due to lack of data



Recommendation

- The report recommends that the Departments of Mental Health, Mental Retardation and Substance Abuse Services; Corrections; and Juvenile Justice conduct needs assessments to identify the human and technology resources necessary to conduct adequate evaluations of substance abuse services. Results should be presented to the joint legislative subcommittee studying substance abuse (SJR 77).

