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#### **ABSTRACT**

This Kids Count report uses data from the Arkansas Department of Health to examine statewide trends in child safety. The findings suggested that in 1996, about one-third of child deaths in Arkansas were due to non-natural causes, with substantial racial and sex differences. Causes such as accidents, homicides, and suicides were more common for non-whites and for males than for whites and females, and accounted for about 37 percent of all child and youth deaths. Traffic accidents accounted for about 30 percent of trauma-related injuries in emergency room hospital admissions, followed by accidental falls (28 percent), and other accidents, such as machinery or firearm accidents (19 percent). The leading cause of injury was accidental falls from one level to another involving playground equipment, cliffs, or beds, accounting for nearly 20 percent of all hospital visits; motor vehicle traffic accidents accounted for 11 percent, and traffic collisions with pedestrians, 7 percent. Boys were more likely than girls to have injuries related to rough play, aggression, falls, or firearms. Blacks were more likely than whites to have injuries from falls or firearms, and less likely to be injured in accidents with off-road vehicles. Child maltreatment was the leading cause of injury for infants. Firearm accidents were more common among older than younger children. Children most likely to die in auto accidents were 15 to 19 years old; a large portion of auto accident injuries were due to not using seat belts. The report concludes by identifying research and policy analysis needs. (KB)

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A STATE OF THE STATE REPORT



AN ARKANSAS KIDSCOUNT SPECIAL REPORT BY ARKANSAS ADVOCATES FOR CHILDREN & FAMILIES WITH SUPPORT FROM THE ANNIE E. (ASEY FOUNDATION

Arkansas Advocates for Children & Families (AACF) gratefully acknowledges the Children's Resource Center at UALR, the Arkansas Department of Health, Arkansas Children's Hospital and the Arkansas Highway and Transportation Department for providing the data in this report.

Child Safety: A State of the State Report is a product of Arkansas KidsCount, a collaborative of more than 40 agencies and groups that deal with issues concerning children and their families. Arkansas KidsCount is a project of Arkansas Advocates for Children & Families with support from the Annie E. Casey Foundation.

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Arkansas Advocates for Children & Families works to protect and promote, through research, education and advocacy, the rights and well-being of our state's children and their families, so to assure that all children have the opportunity and resources to lead healthy and productive lives.

AACF is currently working within the areas of Education, Juvenile Justice, Children's Health, Hunger & Nutrition and Welfare Reform. AACF was the instigator of the recently inaugurated ARKids First Program and is now working to assure its success in the state. We have also formed groups to monitor children's issues, such as the Arkansas Kids Count Coalition and the Welfare Reform Working Group which is monitoring the changes since the new \Welfare Reform system was put into place in our state.

Each year, with advice from the Kids Count Coalition, AACF selects one issue to explore in depth. In 1997, we chose to examine the safety level of our state's children. This report reveals the injuries suffered by children according to age, gender and race. We do not set out to draw conclusions from the data, merely to put the data out in front, so that parents and professionals will know what danger signs to watch for, which activities to be cautious about and whether public policies or legal changes may lead to the prevention or reduction of accidents among children. The problems families face today are neither easy to overcome nor amenable to simplistic solutions. Arming people with the facts is the first step toward keeping all Arkansas children safe.

If you would like to learn more about the status of children and families in Arkansas, please contact AACF for more information.



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ARKANSAS ADVOCATES FOR CHILDREN & FAMILIES DECEMBER 1997



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### Introduction

There are many ways to consider whether a child is safe or not. First to come to mind is keeping children safe from harm by others - abuse, abduction, and assault. The next consideration might be given to keeping a child safe in their environment, such as shelter and pollution. Other factors of safety involve accidents such as falls, misuse of firearms or equipment, drowning or misuse of vehicles. And finally, safety factors include those bad choices that children make that threaten their safety such as using alcohol or drugs, attempting suicide or not using safety equipment such as helmets or seat belts.

In late 1996, members of the Kids Count Coalition expressed concern about child safety issues and asked AACF to gather and compile statistics that would reflect how great or small the issue of child safety is for Arkansas children. They asked us to provide a report that gives a more complete picture of those things that parents, child serving professionals and policy makers could learn so to protect children from harm.

While it is beyond the scope of this mini-report to provide a comprehensive assessment of child safety issues, it is our hope that other organizations in the state concerned with child safety issues - families, hospitals, schools, health agencies, the State Legislature, etc., - will continue to build on the initial data collection and discussion begun in this report by conducting more in-depth analyses of child safety issues.

The time period covered by this mini-report varies slightly, depending on the source of the data.

- Arkansas Dept. of Health Fatality Data, 1991-1995
- Arkansas Children's Hospital Trauma Accident Data, 1993-1996
- Arkansas Highway & Transportation Dept.
   Traffic Accident Data, 1993-1996
- Arkansas youth Risk Behavior Survey, 1995

Because of a delay in producing this mini-report, some of the data contained within it may be a year or so behind that which is currently available. These data, however, will be updated in a future issue of a Kids Count Bulletin to be produced by AACF later this year.

Table 1

Under 18 Deaths, 1991-1995	
Selected Causes	

Causes	1991	1992	1993	1994	1995
Accidents	178	168	160	187	160
Suicide	12	12	19	19	24
Homicide	23	.34	38	36	44
All Causes	678	645	653	637	621

Table 2

### Under 18 Male Deaths, 1991-1995 Selected Causes

	Causes 1991 1992	1993 1994 1995
	Accidents 119 106	102
	Suicide 9 9	15 16 18
	Homicide 18 24	31 35
ŗ,	All Causes 402 363	420 395 379
:		

Table 3

### Under 18 Female Deaths, 1991-1995

uses	1991 1992	1993 19 <u>9</u> 4
cidents	59 62	58 71

Causes 19	J) 1992	1995	1994	1775
Accidents 59	62	58	71	50
Suicide 3	3	4 👸	3	6
Homicide 5	10	7	5.	9
All Causes 27	3 282	233 🐎	240	242
		4000		7.M.

#### Table 4

# Under 18 White Deaths, 1991-1995 Selected Causes

	Causes	199	1 1992	<u>1993 1994 1995</u>
	Accidents	125	128	130 138 119
•	Suicide	12	9	16
	Homicide	10	10	12 13 19
	All Causes	440	430	463 441 411

#### Table 5

# Under 18 Non-White Deaths, 1991-1995 Selected Causes

N 44 I 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		1.0		
Causes	1991 1992	1993	1994	1995
Accidents	33 25	18	26	20
Suicide	0 3	<b>3</b> (3)	1	1
Homicide	13 22	26	.23	25
All Causes	235 215	190	194	210

## How Many Arkansas Children Die of Non-Natural or External Causes?

The Arkansas Department of Health is the best source of data on the causes of death of Arkansas' Children. (See Tables 1-5) As Table 1 indicates, 621 Arkansas children died from all causes, natural and unnatural, during 1995. Two-hundred and twenty-eight child deaths (34.5%) were from the three leading causes of unnatural or external deaths-accidents, suicides, and homicides. Another 11 children died from external causes in which it could not be determined whether it was accidental, suicidal, or homicidal. Although the percent of child deaths due to accidents, homicides and suicide dropped from 38.0% in 1994 to 34.5% in 1995, the overall general trend since 1991 has been a slight increase in the percentage of child deaths due to accidents and other external causes (from 31.4% in 1991 to 34.5% in 1995). Generally speaking, about one out of every three child deaths in Arkansas are due to non-natural or external causes. (See Figure 1)

There are some surprising gender and racial differences in the percentage of child deaths due to non-natural causes. In 1995, for example, only 26.9% of all child female deaths were due to non-natural causes such as accidents, homicides, and suicides, compared to 42.9% for all under 18 male deaths (see Figures 2 and 3).

Similarly, there is also a substantial difference between whites and nonwhites in the percent of deaths due to non-natural causes. As figures 4 and 5 show, non-natural causes such as accidents, homicides, and suicides comprised 39.1% of all white child deaths, while the same causes comprised only 21.9% of all deaths for non-whites.

## What Are the Leading Causes of Non-Natural Child Death?

As Figure 1 indicates, of the 621 child deaths in Arkansas during 1995, accidental deaths accounted for 160 child deaths (25.8% of all child deaths), homicides-44 child deaths (7.1%), and suicide--24 child deaths (3.9%).

### **Accidents**

Males are more likely to die from accidents than are females. (See Figure 6) In 1995, 29.0% of all males deaths were due to accidents, compared to only 20.7% for females. Accidents also comprise a greater proportion of the child deaths for whites than for non-whites '% % and 9.5% respectively).

Figure 1

### Causes of Under 18 Deaths, 1995

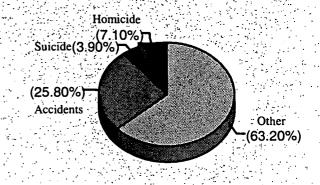


Figure 2

Causes of Under 18 Male Deaths, 1995

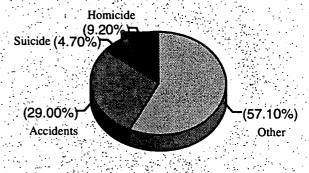


Figure 3

Causes of Under 18 Female Deaths, 1995

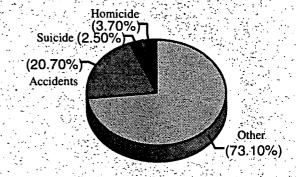
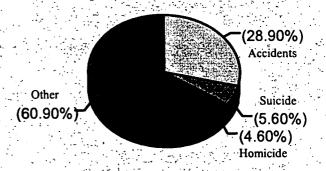


Figure 4
Causes of Under 18 White Deaths, 1995



# Causes of Under 18 Non-White Deaths, 1995

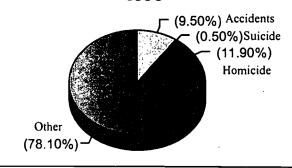


Figure 6

### Percentage of Under 18 Deaths Due to Accidents, 1995

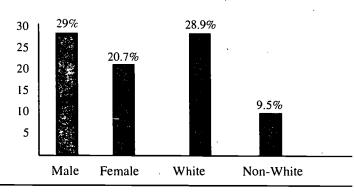


Figure 7
Percentage of Under 18 Male Deaths Due to Accidents, 1991-1995

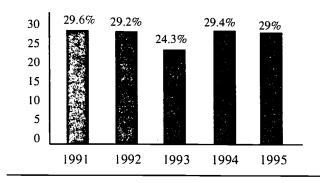
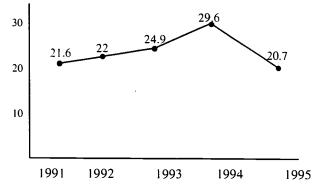


Figure 8

### Percentage of Under 18 Female Deaths Due to Accidents, 1991-1995





### **Homicides**

There are also substantial differences between sexes and races in the proportion of deaths due to homicides. As Figure 9 indicates, homicides represented 9.2% of all male adolescent deaths in 1995, compared to only 3.7% for females. Homicides comprised 11.9% of all deaths for non-whites, while 4.6% of all white children died because of homicide.

As Figure 10 shows, the role of homicides in causing the death of children has risen slowly, but steadily, increasing from only 3.4% of all deaths in 1991 to 7.1% in 1995. Contrary to public perception, this trend can be attributed to the increase in homicide deaths for whites, not to homicide deaths for non-whites. Homicide deaths for white children increased from 2.9% of all deaths for this group in 1994 to 4.6% in 1995 (see Figure 11). In contrast, the percent of child non-white deaths due to homicides declined from 13.7% in 1993 to 11.9% in 1995 (see Figure 12).

### Suicide

Suicides account for only 3.9% of all under 18 deaths in the state (see Figure 1), and are more likely a cause of death for males (4.7% of all male deaths), than females (3.7%). Nonwhite youths rarely commit suicide (only 1 reported suicide in 1995), while suicides comprised nearly 6 percent (5.6%) of all deaths for white children.

# Causes of Accidents and Trauma-Related Injuries

AACF recently examined children's accident and trauma-related injury data from the Arkansas Children's Hospital emergency room for a three-year period from October 1993 through October 1996. The source of the data was Arkansas Children's Hospital's (ACH) Trauma Registry Database, which includes data for children under 18 years of age admitted into the hospital for trauma-related injuries. The Trauma Registry Database does not include those treated in the emergency room and released for minor injuries, does not track burn-related injuries, and because of its geographic location, tends to over-represent cases in the Central Arkansas area Despite these limitation, however, the database is one of the best sources of information on the causes of more serious childhood accidents.

As one might expect, emergency room visits in-

crease as the weather gets warmer, kids are out of school and on summer break, and engage in outdoor activities.

Young victims comprise the largest share of trauma related visits to the hospital. Infants and children ages 1-5, for example, constitute nearly 40% of those admitted.

Males comprise the greatest share of child accident victims. In the three year sample, 64.6% percent of the cases were male, while only 35.3% were females.

#### **General Causes**

According to the emergency room classification system used by the Trauma Registry, traffic accidents accounted for the bulk of reported trauma-related injuries (30.4%), followed by accidental falls (27.9%), and other types of accidents--such as being struck by objects or persons, those caused by machinery, or firearm accidents (18.9%). (See Table 6)

Table 6. General Categories		• .
Motor Vehicle Traffic Accidents	431	30.4
Accidental Falls	395	27.9
Other Accidents (listed below)	268	18.9
Struck by falling objects		
Struck accidentally by objects		
or persons		
Caught accidentally in or		1.77
between objects		1 S.
Accidents caused by machinery		`.
Accidents caused by cutting and		
piercing instruments or objects		
Accidents caused by explosion of		
pressure vessel		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Firearm accidents		
Accidents caused by explosive		* .
materials		
Accidents caused by hot substance		4.
or object, caustic or corrosive	Asi an	
materials, and steam	24/2	
Accidents caused by electric		
currents		
Overexertion and strenuous	** 7	
movements		
Other unspecified causes	*.	
Homicide and Injury Purposely		
Inflicted by Other Persons	98	6.9
Motor Vehicle Non-traffic		
Accidents	80	5.6
(non-traffic=those not occurring		
on a public street or highway)		
Other Road Vehicle Accidents	80	5.6
All Other	64	4.5

Figure 9 Percentage of Under 18 Deaths Due to Homicide, 1995 30 25 20 15 11.9% 9.2% 10 4.6% 5 3.7%

Figure 10 Percentage of All Under 18 Deaths Due to Homicide, 1991-1995

White

Non-White

Female

Male

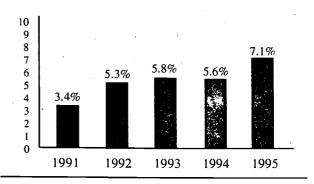


Figure 11 Percentage of Under 18 White Deaths Due to Homicide, 1991-1995

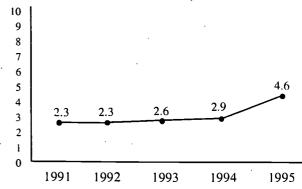


Figure 12 Percentage of Under 18 Non-White Deaths Due to Homicide, 1991-1995

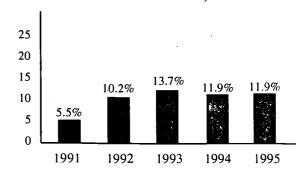




Figure 13

# Percentage of Hospital Visits for Trauma-Related Injuries, by Quarter

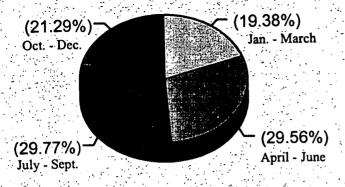
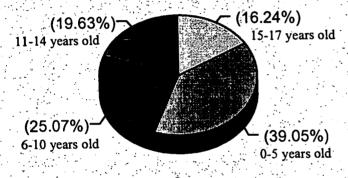


Figure 14

### Percentage of Hospital Visits for Trauma-Related Injuries, by Age Group



### **Specific Causes**

A more detailed examination of the causes, broken down into more specific categories, provides greater insights into the causes of child trauma-related injuries. As Table 7 shows, the leading cause of injury was accidental falls from one level to another involving playground equipment, cliffs, chairs, beds, etc., accounting for nearly 20% of all hospital visits, while motor vehicle traffic accidents (no cause specified) accounted for 10.8%, motor vehicle traffic accidents involving collisions with pedestrians–7.0%, and being struck accidentally by an object or person–5.7%. Child battering and other child maltreatment was the fifth leading cause at 4.4%.

### Table 7. Specific Categories of Injuries

ible 7. Specific Categories of injuries		
Accidental Falls From Playground		
Equipment, cliffs, chairs,		
beds, furniture, trees,		
embankments.	278	19.6
Motor Vehicle Traffic Accidents of		
Unspecified Nature	153	10.8
Motor Vehicle Traffic Accidents		
Involving Collision with a		
Pedestrian	99	7.0
Strike Against or Struck Accidentally		
by Objects or Persons	81	5.7
Child Battering and Other		
Maltreatment	62	4.4
Non-traffic accidents involving		
off-road motor vehicles	56	4.0
(non-traffic - those not occurring		
on a public street or highway)		
Firearm Accidents	54	3.8
Bicycle Accidents	53	3.7
Motor Vehicle Traffic Accidents		
Involving Collision With		
Non-Motorized Vehicles	52	3.7
Motor Vehicle Traffic Accident		
Involving Collision		
with Another Parked, Stopped,		
Stalled, or Abandoned		
Motor Vehicle	46	3.2

### Causes by Gender

For the most part, the reported causes of admitted trauma-related injuries are similar for boys and girls Accidental falls from playground equipment, cliffs chairs, beds, furniture, trees, embankments is the leading cause of trauma related injuries for both sexes (19.1 percent for boys and 20.6 percent for girls). There are some important differences. (See Tables 8 & 9) Rough play, for example, was a major cause of injuries for boys. Causes classified as "striking against or being struck accidentally by an object or another person constitutes 7.6 percent of all injuries for boys, but only 0.2 percent for girls. Boys are also more prone to physical aggression than are girls. Falls caused by pushing or shoving with another person accounted for 3.5 percent of the injuries to boys, compared to only 0.8 percent fo girls. Finally, firearm accidents are a major cause of ir juries for boys but not for girls (4.7 percent, less than 1 percent for girls).



Table 8. Leading Causes for Males		79 9 284
Accidental falls from playground		
equipment, cliffs, chairs, beds,		
furniture, trees, embankments	174	19.1
Motor Vehicle Accidents of		
Unspecified Nature	90	9.9
	- <b>50</b>	7.7
Striking Against or Struck Accidentally	69	76
by Object or Person	69	7.6
Motor Vehicle Traffic Accident		
Involving Collision with a		
Pedestrian (A)	58	6.4
Firearm Accidents	43	4.7
Non-traffic Accident Involving		
Other Off-Road		- (* ) - (*)
Motor Vehicle	41	رة د <b>4.5</b>
Pedal Cycle Accident	40	4.4
Motor Vehicle Traffic Accident		
Involving Collision with Other		
Vehicle.	34	3.7
Fall Caused by Pushing or		
Shoving with Another Person	32	3.5
Child Battering and Maltreatment	32	3.5
equipment, cliffs, chairs, beds, furniture, trees, embankments	103	20.6
	103	20.6
Motor Vehicle Accidents of	63	10.4
Unspecified Nature	62	12.4
Motor Vehicle Traffic Accident		
Involving Collision with	4 4 4	
a Pedestrian	40	8.0
Child Battering and Maltreatment	30	6.0
Motor Vehicle Traffic		۱۶۵۰ و ادر از ک
Accident Involving		
Collision with Stopped		
Motor Vehicle	22	4.4
Motor Vehicle Traffic Accident		· :
Due to Loss of Control without		
Collision on the Highway	19	3.8
Motor Vehicle Traffic Accident		
Involving Collision with Other		
Vehicle.	. 18	3.6
Injuries Caused by Animals		
(Bites by Non-venomous Animals	i) 17	3.4
Non-traffic Accidents Involving	., .,	5,7
Off-Road Motor Vehicles	15	3.0
	1.5	5.0
Accidents Involving Animals	14	<b>າ</b> 0
C Being Ridden	1+	2.8

### Causes by Race

For the most part, the reported causes of admitted trauma-related injuries are similar across race with three exceptions. (See Tables 10 & 11) First, accidental falls comprise the leading cause for both blacks and whites, but they comprise a much lower share for blacks. Accidental falls comprised 21.6 percent of the accident causes for whites, compared to only 13.9 for blacks. The second major difference concerns the role of firearms in trauma related injuries. Firearm accidents are a leading cause of accidents for blacks. Firearm accidents comprise 8.7 percent of all accidents for blacks, compared to only 1.9 percent for whites. Purposeful assaults by firearms and explosives are one of the top ten causes of trauma related injuries for blacks (4.0 percent), but not for whites (only 0.1 percent). A third major difference is that non-traffic accidents involving off-road motor vehicle are the third leading cause for whites (5.4%), but does not show up on the list for blacks.

Table 10. Leading Causes for Whites		
Accidental falls from playground		
equipment, cliffs, chairs, beds,		
furniture, trees, embankments	211	21.6
Motor Vehicle Accidents of		
Unspecified Nature	112	11.5
Non-traffic Accident Involving		
Off-Road Motor Vehicle 53	5.4	
Motor Vehicle Traffic Accident		
Involving Collision with a Pedestrian	50	5.1
Striking Against or Struck Accidentally		
by Object or Person	50	5.1
Child Battering and Maltreatment	43	4.4
Pedal Cycle Accident	35	3.6
Other Motor Vehicle Traffic Accident		
involving collision with other		
Motor Vehicle	31	3.2
Motor Vehicle Traffic Accident		
Involving collision with other		
Non-motorized vehicle	31	3.2
Other & Unspecified		
Environmental/Accidental Causes	30	3.1

			Table 13. Leading Causes for Children		
Accidental falls from playground			1-5 Years of Age		
equipment, cliffs, chairs, beds, furniture, trees, embankments	5.0		Accidental falls from playground		
	56	13.9	equipment, cliffs, chairs, beds,		
Motor Vehicle Traffic Accident			furniture, trees, embankments  Motor Vehicle Accidents of	116	26.
Involving Collision with			Unspecified Nature	53	
a Pedestrian	47	11.6	Motor Vehicle Traffic Accident	53	12.
Motor Vehicle Accidents of		, xv	Involving Collision with a		
Unspecified Nature	36	8.9	Pedestrian	20	0.0
Firearm Accidents	- <b>35</b> .	8.7	Injuries Caused by Animals	39	9.0
Striking Against or Struck Accidentally			(Bites by Non-venomous		
by Object or Person	.31	7.7	Animals)	18	4.2
Child Battering and Maltreatment	19	4.7	Accidents Caused by Cutting and	10	<b>~.</b> -
Motor Vehicle Traffic Accident			Piercing Instruments or Objects	18	4.2
Involving Collision with			Other and Unspecified	·, •	1.2
Other Vehicle	18	4.5	Environmental/Accidental Causes	17	3.9
Pedal Cycle Accident	17	4.2	Child Battering and Maltreatment	17	3.9
Assault by Firearm	16	4.0	Striking Against or Struck	, Salan	
Other Motor Vehicle Traffic Accident	4); ;		Accidentally by Object or Person	15	3.5
Involving Collision			Other Motor Vehicle Traffic Accident	1. j 1	
with Motor Vehicle	14	3.5 %	Involving Collision with		
	d		Motor Vehicle	13	3.0
			Pedal Cycle Accident	12	2.8
ss Than One Year of Age			Accidental falls from playground	4 ° 4 ° 1	
Child Battering and Maltreatment	43	35.2	P.u.) B. 04.1.4		
		1.000000	equipment cliffs chairs beds		
Accidental falls from playground			equipment, cliffs, chairs, beds, furniture, trees, embankments	81	22 R
equipment, cliffs, chairs, beds,			furniture; trees, embankments	81	22.8
equipment, cliffs, chairs, beds, furniture, trees, embankments	38	31.1	furniture, trees, embankments Motor Vehicle Traffic Accident	81	22.8
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified	38	31.1	furniture; trees, embankments		•
equipment, cliffs, chairs, beds, furniture, trees, embankments	38	31.1	furniture, trees, embankments  Motor Vehicle Traffic Accident  Involving Collision		11.8
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified  Environmental/Accidental  Causes	38 7	31.1 5.7	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian	42	22.8 11.8 .7.6
equipment, cliffs, chairs, beds, furniture, trees, embankments. Other and Unspecified Environmental/Accidental Causes Motor Vehicle Accidents of	38		furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature	42	11.8
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature	38 7 6		furniture, trees, embankments  Motor Vehicle Traffic Accident Involving Collision with a Pedestrian  Pedal Cycle Accident Motor Vehicle Accidents of	42 27	11.8
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified	7	5.7	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with	42 27	11.8
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident	7	5.7 4.9	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle	42 27	11.8 7.6 7.0
equipment, cliffs, chairs, beds, furniture, trees, embankments. Other and Unspecified Environmental/Accidental Causes Motor Vehicle Accidents of Unspecified Nature Fracture, Cause Unspecified Other Motor Vehicle Traffic Accident Involving Collision with Motor	7	5.7 4.9	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck	42 27 25	11.8 7.6 7.0
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle	7	5.7 4.9	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object	42 27 25	11.8 7.6 7.0
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle  Striking Against or Struck	7 6 5	5.7 4.9 4.1	furniture, trees, embankments  Motor Vehicle Traffic Accident  Involving Collision  with a Pedestrian  Pedal Cycle Accident  Motor Vehicle Accidents of  Unspecified Nature  Motor Vehicle Traffic Accident  Involving Collision with  Other Vehicle  Striking Against or Struck  Accidentally by Object  or Person	42 27 25	11.8 7.6 7.0
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle  Striking Against or Struck Accidentally by Object or Person	7 6 5	5.7 4.9 4.1	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object or Person Non-traffic Accident Involving	42 27 25 22	11.8 7.6 7.0 6
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle  Striking Against or Struck Accidentally by Object or Person Motor Vehicle Traffic Accident	7 6 5	5.7 4.9 4.1	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object or Person Non-traffic Accident Involving Off-Road Motor Vehicle	42 27 25 22	11.8
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle  Striking Against or Struck Accidentally by Object or Person	7 6 5	5.7 4.9 4.1	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object or Person Non-traffic Accident Involving Off-Road Motor Vehicle Accidents Caused by Cutting and	42 27 25 22	11.8 7.6 7.0 6
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle  Striking Against or Struck Accidentally by Object or Person Motor Vehicle Traffic Accident	7 6 5	5.7 4.9 4.1	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object or Person Non-traffic Accident Involving Off-Road Motor Vehicle Accidents Caused by Cutting and Piercing Instruments	42 27 25 22 19	11.8 7.6 7.0 6 5.4
equipment, cliffs, chairs, beds, furniture, trees, embankments Other and Unspecified Environmental/Accidental Causes Motor Vehicle Accidents of Unspecified Nature Fracture, Cause Unspecified Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle Striking Against or Struck Accidentally by Object or Person Motor Vehicle Traffic Accident Due to Loss of Control without	7 6 5	5.7 4.9 4.1 3.3	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object or Person Non-traffic Accident Involving Off-Road Motor Vehicle Accidents Caused by Cutting and Piercing Instruments or Objects	42 27 25 22	11.8 7.6 7.0 6
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified Environmental/Accidental Causes  Motor Vehicle Accidents of Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle  Striking Against or Struck Accidentally by Object or Person Motor Vehicle Traffic Accident Due to Loss of Control without Collision on the Highway	7 6 5	5.7 4.9 4.1 3.3	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object or Person Non-traffic Accident Involving Off-Road Motor Vehicle Accidents Caused by Cutting and Piercing Instruments or Objects Other Motor Vehicle Traffic	42 27 25 22 19	11.8 7.6 7.0 6 5.4
equipment, cliffs, chairs, beds, furniture, trees, embankments.  Other and Unspecified     Environmental/Accidental     Causes  Motor Vehicle Accidents of     Unspecified Nature  Fracture, Cause Unspecified  Other Motor Vehicle Traffic Accident Involving Collision with Motor Vehicle  Striking Against or Struck     Accidentally by Object or Person  Motor Vehicle Traffic Accident     Due to Loss of Control without     Collision on the Highway  Fall on or from stairs or steps	7 6 5 4 4 3 3	5.7 4.9 4.1 3.3 3.3	furniture, trees, embankments Motor Vehicle Traffic Accident Involving Collision with a Pedestrian Pedal Cycle Accident Motor Vehicle Accidents of Unspecified Nature Motor Vehicle Traffic Accident Involving Collision with Other Vehicle Striking Against or Struck Accidentally by Object or Person Non-traffic Accident Involving Off-Road Motor Vehicle Accidents Caused by Cutting and Piercing Instruments or Objects	42 27 25 22 19	11.8 7.6 7.0 6 5.4

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### **Causes by Age Group**

The causes of accidents are also remarkably similar across age groups. Accidental falls and motor vehicle accidents, for example, are among the major causes of injuries across different age groups. Several important differences do exist however. (See Tables 12-16) For infants, child battering and maltreatment is the leading cause of injury (35.2 percent) and an important cause for children 1-5 years of age (3.9%). It was not among the top ten causes for children 6-17 years of age. Another important difference was that firearm accidents are a leading cause of trauma related injuries as children get older. Firearm accidents are responsible for 7.6% of all injuries for 11-14 year olds and 8.3% for 15-17 year olds. Purposeful firearm assaults also become prevalent as children get older. For children 15-17 years of age, firearm assaults are responsible for 4.8% of all trauma-related injuries.

### **Auto Accidents**

As shown above, auto accidents are a leading cause of accidental deaths and injuries for Arkansas' children. It is also one of the few child safety issues for which relatively good data exists. Below are highlights from 1993-1996 data as reported by the Arkansas Highway and Transportation Department.

# How Many Arkansas Children Are Killed or Injured in Auto Accidents?

In 1996, 120 children were killed in auto accidents. (See Figure 15) This represents a substantial drop of 12.4% from 1995, a year in which 137 children were killed (see Figure 15). Accidents involving fatalities, however, constitute only a small number of all auto accidents. During 1996, nearly 12,000 children were injured in auto accidents (see Figure 16). As Figure 17 shows, during the last three years, the number of children injured in car accidents was roughly 170 per 10,000.

## At What Age are Children More Likely to Die in Auto Accidents?

As one would expect, most children killed in auto ccidents are 15 to 19 years of age (70%), followed

Figure 15

Kids Killed in Auto Accidents
1993-1996

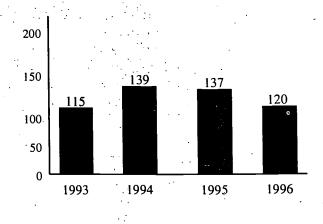
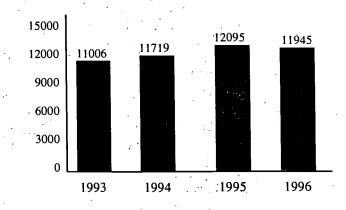


Figure 16
Kids Injured in Auto Accidents
1993-1996



Kids Injured in Car Accidents
Per 10,000 Population 1993-1996

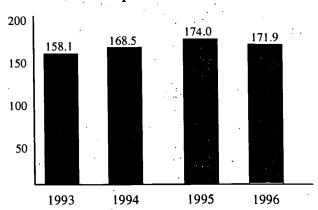


Figure 18

### Age Make-Up of Kids Killed in Car Accidents, 1996

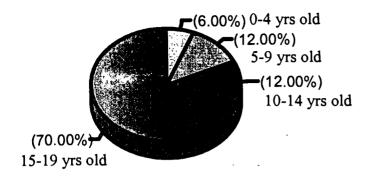


Figure 19

# Fatal Accidents in which Driver was under 20 years of age

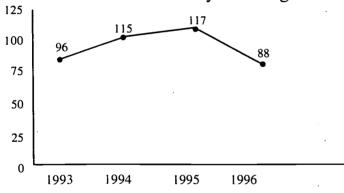
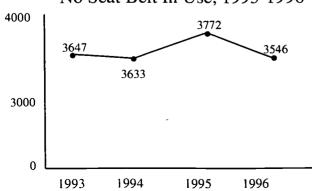


Figure 20

# Children Injured When No Seat Belt In Use, 1993-1996



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# ERIC \*Full Text Provided by ERI

	-
Table 15. Leading Causes for Childr	en
1-14 Years of Age	
Motor Vehicle Accidents of	
Unspecified Nature	33 11.9
Accidental falls from playground	33 11.5
equipment, cliffs, chairs, beds,	
furniture, trees, embankments	30 10.8
Striking Against or Struck	30 10.6
Accidentally by Object or	
Person	26 0 4
CONTRACTOR OF THE CONTRACTOR O	26 9.4
Non-traffic Accident Involving	24.04
Off-Road Motor Vehicle	24 8.6
Firearm Accidents	21 7.6
Fall Caused by Pushing or	
Shoving with Another Person	16 5.8
Motor Vehicle Traffic Accident	
Involving Collision with Other	
Vehicle	15 5.4
Motor Vehicle Traffic Accident	
Involving Collision with a	
Pedestrian \$	13 4.7
Pedal Cycle Accident	11 4.0
Other Non-collision Motor	
Vehicle Traffic Accident	8 2.9
15-17 Years of Age  Motor Vehicle Accidents of	
Unspecified Nature	36 15.7
Firearm Accidents	19 8.3
Motor Vehicle Traffic Accident	
Due to Loss of Control	
without Collision on	• .
the Highway	17 7.4
Striking Against or Struck	
Accidentally by Object	
or Person	17 7.4
Other Motor Vehicle Traffic	***
Accident Involving Collision	•
with Motor Vehicle	14 6.1
Accidental falls from playground	
equipment, cliffs, chairs, beds,	
furniture, trees, embankments	13 5.7
Assault by Firearm	11 4.8
Motor Vehicle Traffic Accident	
Involving Collision with	
Other Vehicle	10 4.3
Non-traffic Accident Involving	
Off-Road Motor Vehicle	10 4.3
Fall Caused by Pushing or Shoving	
	10 4.3

by 10-14 years olds (12.0%), 5-9 year olds (12.0%), and 0-4 year olds (6.0%). (See Figure 18)

In many fatal accidents, the driver was under 20 years of age. As Figure 19 shows, in 1996, there were 88 fatal accidents in which the driver was under 20. This represents a significant drop of 24.8% from 1995, when there were 117 fatal accidents in which the driver was under 20 years of age.

### **Seat Belts**

A large portion of child injuries in car accidents are related to the lack of using seat belts. 1996 statistics give evidence of this: almost 30% or 3500 children were injured in car accidents where no seat belts were used. (See Table 17 and Figure 20) Sixty-six of the 120 children who died in car accidents (55%) were not wearing seat belts. (See Figure 21)

### **Alcohol and Drug-Related Accidents**

There are conflicting trends concerning the role of alcohol and drugs in auto accidents. The number of children injured in alcohol and drugrelated accidents has declined slightly from 902 in 1993 to 836 in 1996, a drop of 7 percent (see Figure 22). In contrast, as Figure 23 shows, the number of children killed in alcohol and drug related accidents increased from 35 children in 1994 to 41 in 1996, an increase of more than 17 percent. Most of the children killed in alcohol and drug-related accidents were at least 15 years of age. In 1996, 78 percent of the children killed in accidents involving alcohol and drugs were 15-19 years of age (see Figure 24).

### **Child Pedestrians and Bicycle Riders**

286 child pedestrians were injured in auto accidents during 1996, very similar to what was reported in previous years (see Table 18). Moreover, only 4 child pedestrians were killed in 1996, a dramatic drop from 1993, 1994, and 1995—years in which 10, 13, and 11 child pedestrians were killed. (See Figure 25)

Children Injured When No Seat Belt in Use, 1993 - 1996

Age Group 1993 1994 1995	1996
0-4 360 394 395	316
5-6 180 169 189	205
7-9 317 269 291	285
10-12 369 318 312 13-15 714 776 777	326
	738
Total 3647 3633 3772	<u>21676</u> 3546
	3340

Figure 21

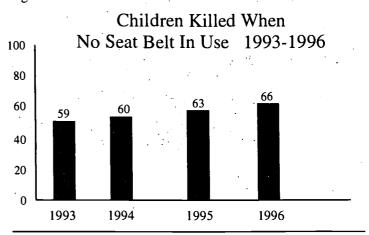


Figure 22

Kids Injured in Alcohol & Drug Related Accidents, 1993-1996

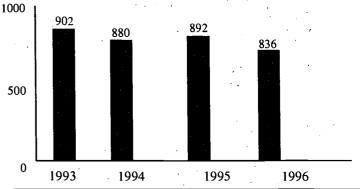
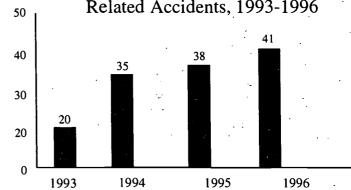


Figure 23

Children Killed in Alcohol & Drug Related Accidents, 1993-1996





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# Age Make-Up of Children Killed in Alcohol & Drug Related Accidents

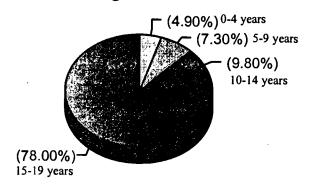
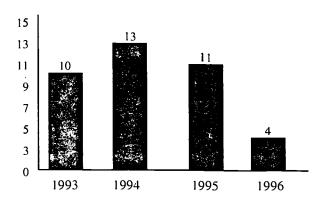


Table 18

	Child Pe	destrian Injuries	
	19	93 - 1996	
3.4			
Age Group	1993	1994 1995	1996
0-4	43	41 41	42
5-9	105	108 97	107
10-14	89	93 82	80
<u>15-19</u>	48_	46 61	<u>57</u>
Total	285	288 281	286

Figure 25

### Child Pedestrians Killed 1993-1996





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# How Does Risky Youth Behavior Contribute to Accidents and Incidents of Violence?

The best data on risky behavior comes from the Youth Risk Behavior Survey. This survey, developed by the U.S. Centers for Disease Control, is conducted every two years by the Arkansas Department of Education. It contains questions designed to yield valuable data on risky behaviors by youths of high school age. The 1995 survey was completed by 2,267 students in grades nine through twelve at scientifically sampled Arkansas public schools. The results are considered to be representative of all Arkansas public school students in grades 9-12. Following is a summary of the survey results as they appeared in the *Morbidity and Mortality Weekly Report*, September 27, 1996, published by the U.S. Centers for Disease Control. Results from the 1997 survey should be available in early 1998.

#### Conclusion

As the data in the report has shown, accidents, homicides, and suicides comprise far too high a percentage of the state's child deaths. Moreover, although traffic accidents and accidental falls are the biggest cases of trauma related injuries, the data suggest there are important differences between races, sexes, and age groups on the causes of injuries. Far too many children are injured in auto accidents in which seat belts were not worn or drugs and alcohol were involved. The data also suggest that large proportions of teens engage in risky behavior that threaten their health and safety.

This report should be viewed as the first step in an effort to provide a more complete picture of child safety in Arkansas. More work needs to be done (1) tracking the causes of child safety accidents, (2) determining the factors associated with the types of child accidents, i.e., how do the types of child accidents and their causes vary by factors such as geographic location or income, and (3) identifying child safety trends in the state. Another issue that needs to be addressed is the policy environment for child safety. Specifically, what state and local policies and programs exist for promoting child safety and how effective are they? Finally, more analytical work needs to be conducted on the level of public awareness concerning child safety issues and methods for reducing accidental child deaths and injuries.

# Highlights from the 1995 Arkansas Youth Risk Behavior Survey

### Usage of seat belts, motorcycle helmets, and bicycle helmets

- 26.2% reported they rarely or never used safety belts;
- **40.0**% rarely or never used motorcycle helmets (of those who rode motorcycles during the past 12 months);
- **96.9%** rarely or never used bicycle helmets (of those who rode bicycles during the past 12 months).

### **Drunk Driving**

- **41.9%** said they had ridden with a driver who had been drinking alcohol 1 or more times during the past 30 days;
- 18.0% reported they drove after drinking alcohol.

### Weapons.

- 26.1% carried a weapon on at least 1 of the last 30 days.
- 11.0% carried a gun;
- 11.0% carried a weapon on school property; and
- 8.7% reported having been threatened or injured with a weapon on school property.

### **Physical Fighting**

- 37.8% reported having been in a physical fight during preceding 12 months;
- 4.1% were injured seriously enough to have seen a doctor or nurse; and
- 17% were in a physical fight on school property.

#### Suicide

\*

- **24.0%** reported having thought seriously about attempting suicide during the preceding 12 months;
- 17.8% made a suicide plan; and
- 8.8% reported having attempted suicide.

#### **Alcohol Use**

- 79.3% said they had tried alcohol at least once in their lifetime;
- 51.5% reported trying alcohol at least once during the past 30 days; and
- 32.2% reported episodic heavy drinking.

### **Drug Use**

- 38.8% reported having tried marijuana at least once during their lifetime;
- 22.8% said they used marijuana at least once during past 30 days; and
- 6.6% reported having tried cocaine at least once in their lifetime; and
- 21.4% reported having sniffed or inhaled, intoxicating substances.





Arkansas Advocates for Children and Families



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