

**WORKSHEET 1--Brad's Care**

**Cost Factor**

**Injury Care**

**Cost Schedule**

cost/unit    no. units    unit

**First Year**

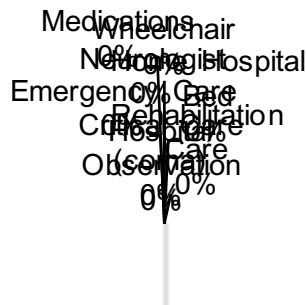
- Emergency Care
- Neurologist
- Critical Care (coma)
- Hospital Observation
- Wheelchair
- Home Hospital Bed
- Medications
- Rehabilitation Care

Emergency Care	\$0
Neurologist	\$0
Critical Care (coma)	\$0
Hospital Observation	\$0
Wheelchair	\$0
Home Hospital Bed	\$0
Medications	\$0
Rehabilitation Care	\$0
Total	\$0

		case
		visits
		weeks
		days
		each
		each
		yr
		yr

**Question 1.1** *What was the total cost of Brad's medical care in the first year after his traumatic brain injury?*                ?      **Try again**

**Brad's First Year Medical Costs**





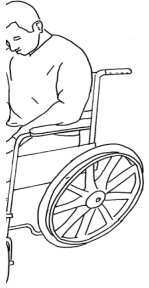


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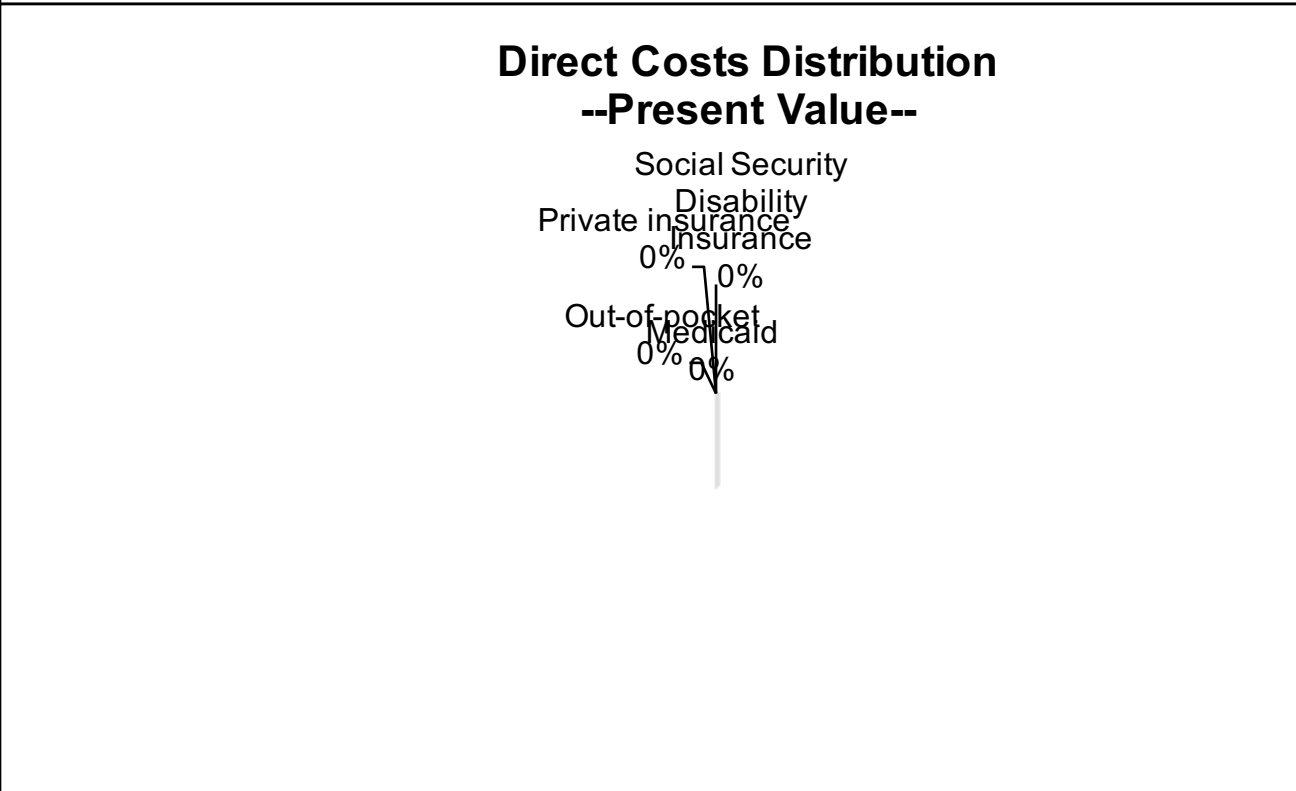
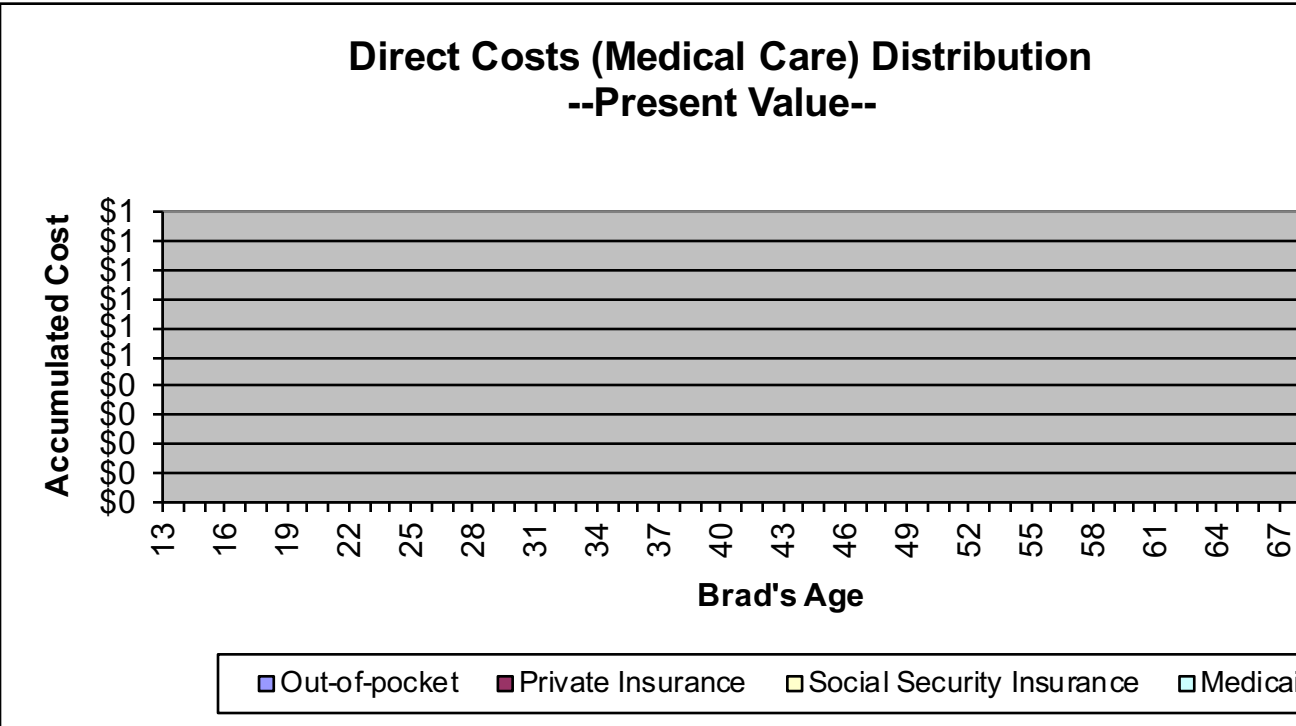


**e**

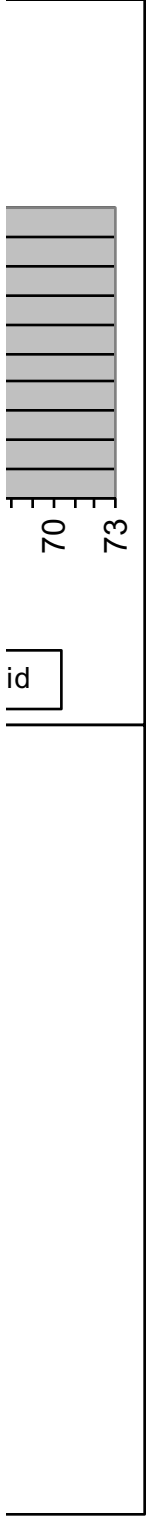


**WORKSHEET 4--Cost Distribution**

**QUESTION 1.4.** Look at Zack's charts; what will pay the most for Brad's care over his lifetime? **FALSE**









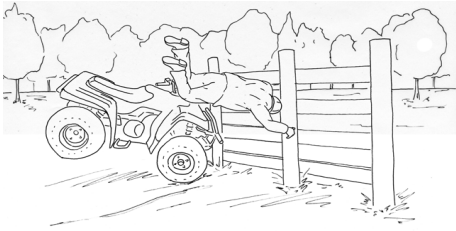
**WORKSHEET 5--Intervention Cost**

Intervention	Cost Schedule			Intervention Cost
	cost/unit	no. units	unit	
Supervision			hrs/yr	\$0 /year
Helmet purchase			ea	

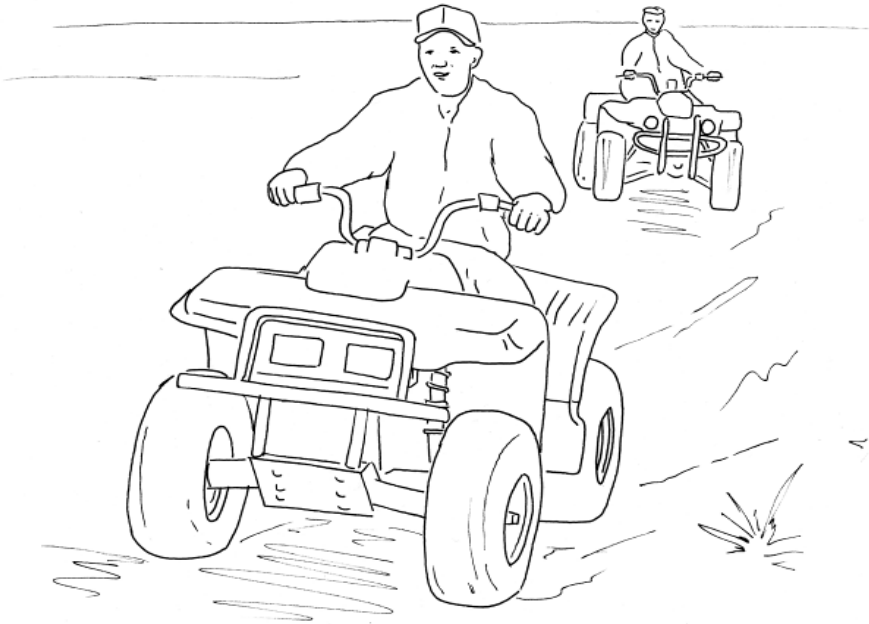
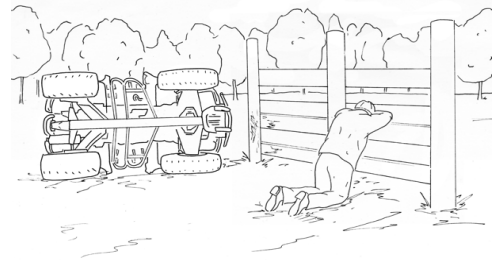
**QUESTION 1.5.** Which costs more, the helmet or the supervision?

**FALSE**

**First Year Intervention Cost**



Supervision  
0%

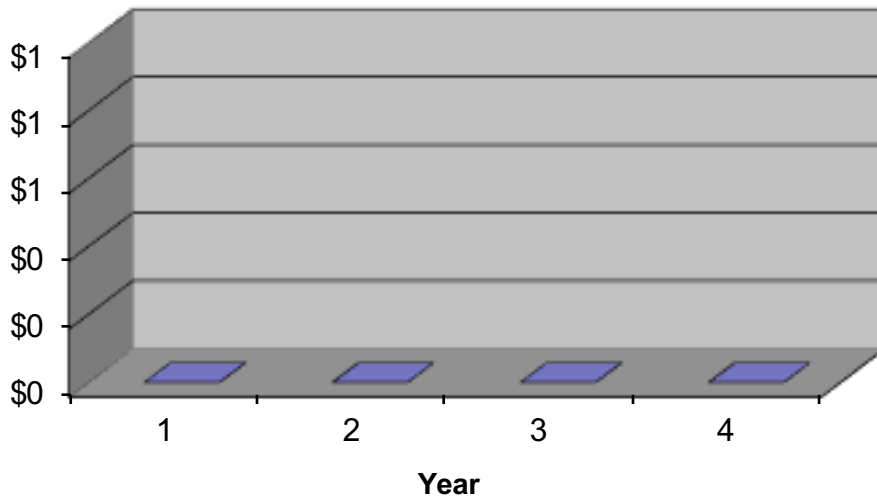


**WORKSHEET 6--4-Year Cost**

<u>Intervention</u>	<u>Cost Schedule</u>			<u>Intervention Cost</u>
	cost/unit	no. units	unit	
Supervision	\$0	48	hrs/yr	\$0 /year
Helmet purchase	\$0	1	ea	
see web page below for helmet cost				
<b>Time Horizon</b>	<input type="text" value=""/> years until Brad is 18			
Total cost of supervision				\$0

**QUESTION 1.6.** *What would the total cost be of supervision while Brad was a minor?* ? [Try again.](#)

**Accumulated Cost of Supervision**



**WORKSHEET 7--Interest on Borrowed Money**

Brad's parents borrowed money to pay for Brad's Care in the first year

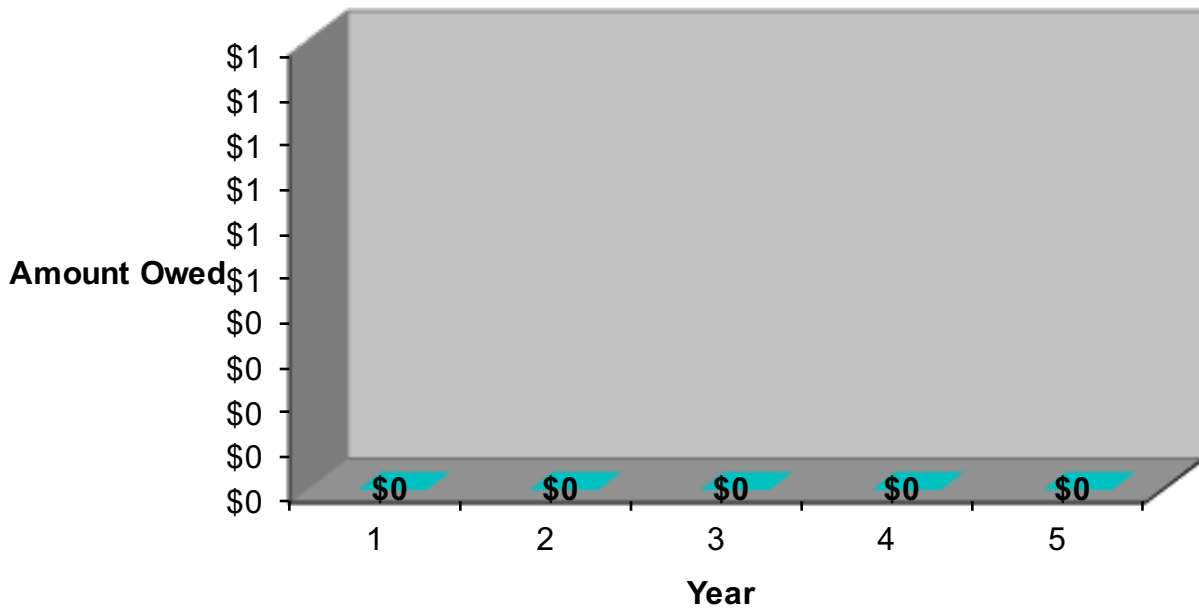
Interest charged on the borrowed money

Interest cost for the first year

**QUESTION 1.7.** *If the loan is not paid in five years, what is the total interest cost for the 5-year period?* \_\_\_\_\_ ?

Try again.

**The Amount of Money Owed by Brad's Father if He Paid Nothing on his Loan for 5 Years**







**WORKSHEET 8--Injury Cost Distribution**

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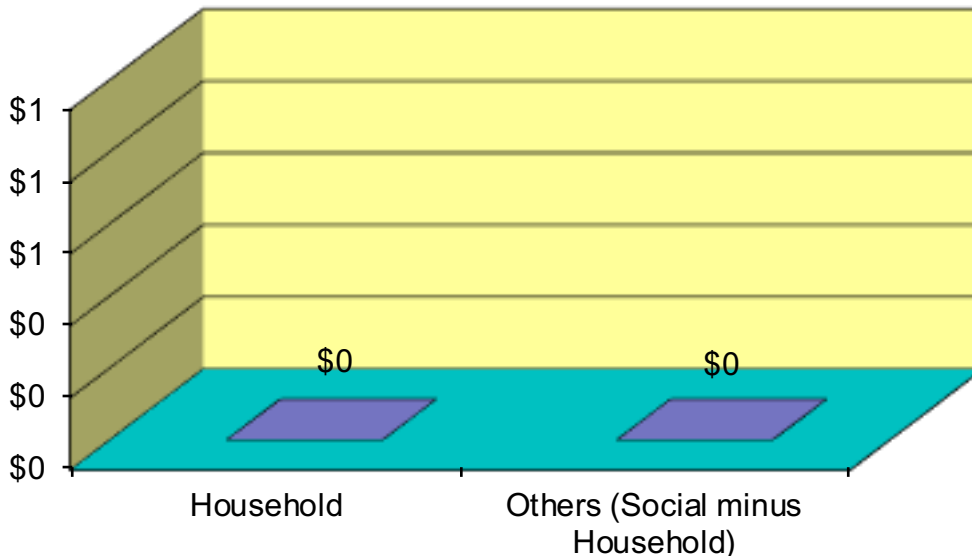
<u>Intervention Cost</u>	<u>Household</u>	<u>Social</u>
Supervision	\$0	\$0
Helmet	\$0	\$0
<b>TOTAL INTERVENTION COST</b>	<b>\$0</b>	<b>\$0</b>

<u>Injury Cost</u>	<u>Household</u>	<u>Social</u>	<u>Cost Schedule</u>		
<u>Direct Costs</u>					
Out-of-Pocket	\$0	\$0			
Social Security Disability		\$0			
Medicaid		\$0			
Insurance Coverage		\$0			
Sub-Total	<b>\$0</b>	<b>\$0</b>			
<u>Indirect Costs (production)</u>					
	Fill in		cost/unit	no. units	unit
Lost time for father, first year	\$0	\$0			hours
Lost time for mother, first year	\$0	\$0			hours
Brad Unable to Work	\$0	\$0			years
Lost time for parents, future years	\$0	\$0			years
Interest on borrowed money	<b>\$0</b>	<b>\$0</b>			
Insurance payment	\$0	\$0			years
Sub-Total	<b>\$0</b>	<b>\$0</b>			
<b>TOTAL INJURY COST</b>	<b>\$0</b>	<b>\$0</b>			

**QUESTION 1.8.** Does Brad's household or do others in society pay more for Brad's head injury?

**FALSE**

**Injury Cost Distribution Between the Household and Others**





**WORKSHEET 9--Cost Type**

	Household	Type of Cost	
		implicit	explicit
<b>Intervention Cost</b>			
Supervision	\$0		
Helmet	\$0		
TOTAL INTERVENTION COST	\$0	\$0	\$0
<b>Injury Cost</b>			
Direct Costs	\$0		\$0
Indirect Costs (production)			
Lost time for father, first year	\$0		\$0
Brad Unable to Work	\$0	\$0	
Lost time for parents, future years	\$0		\$0
Interest on borrowed money	\$0		\$0
Insurance payment	\$0		\$0
TOTAL INJURY COST	\$0	\$0	\$0

This is ( )  
This is ( )

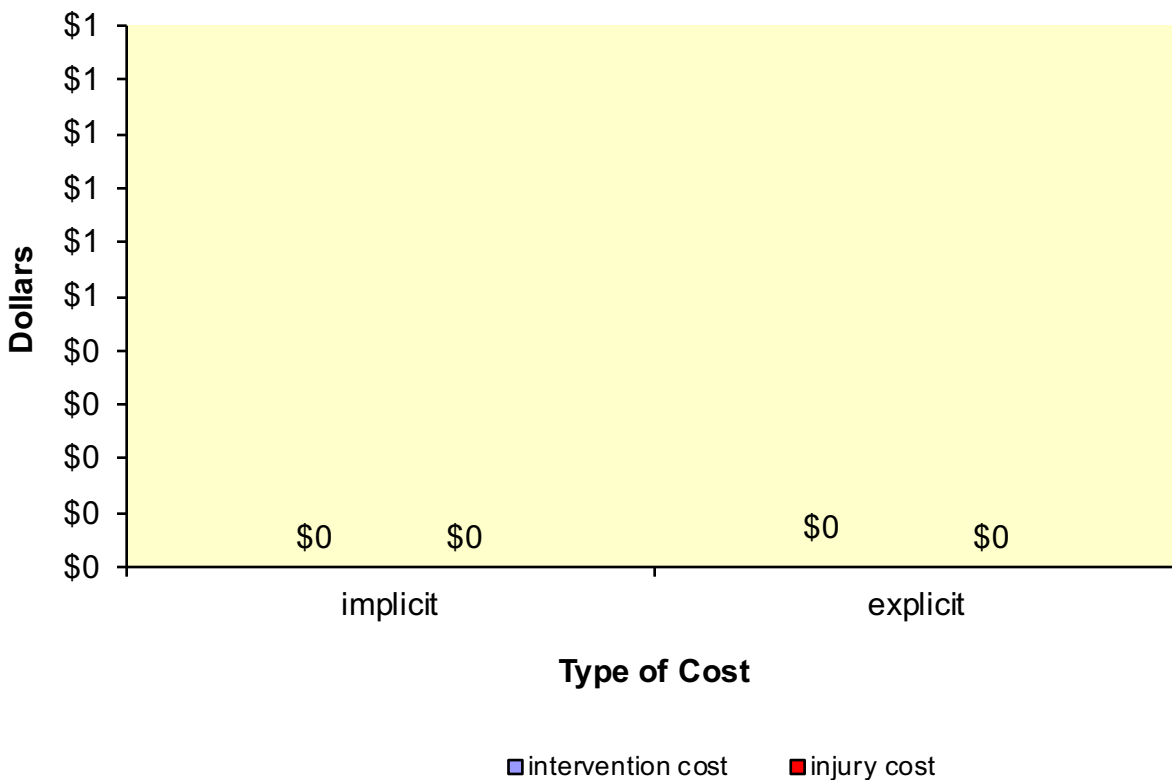
**QUESTION 1.9.** *Is the cost of supervision an implicit or explicit cost?*

*Is the cost of the helmet an implicit or explicit cost?*

\_\_\_\_\_

\_\_\_\_\_

**Non-Cash (implicit) and Out-of-pocket (explicit) Costs to Brad's Household**





**Correct!**  
**Correct!**

**FALSE**  
**FALSE**

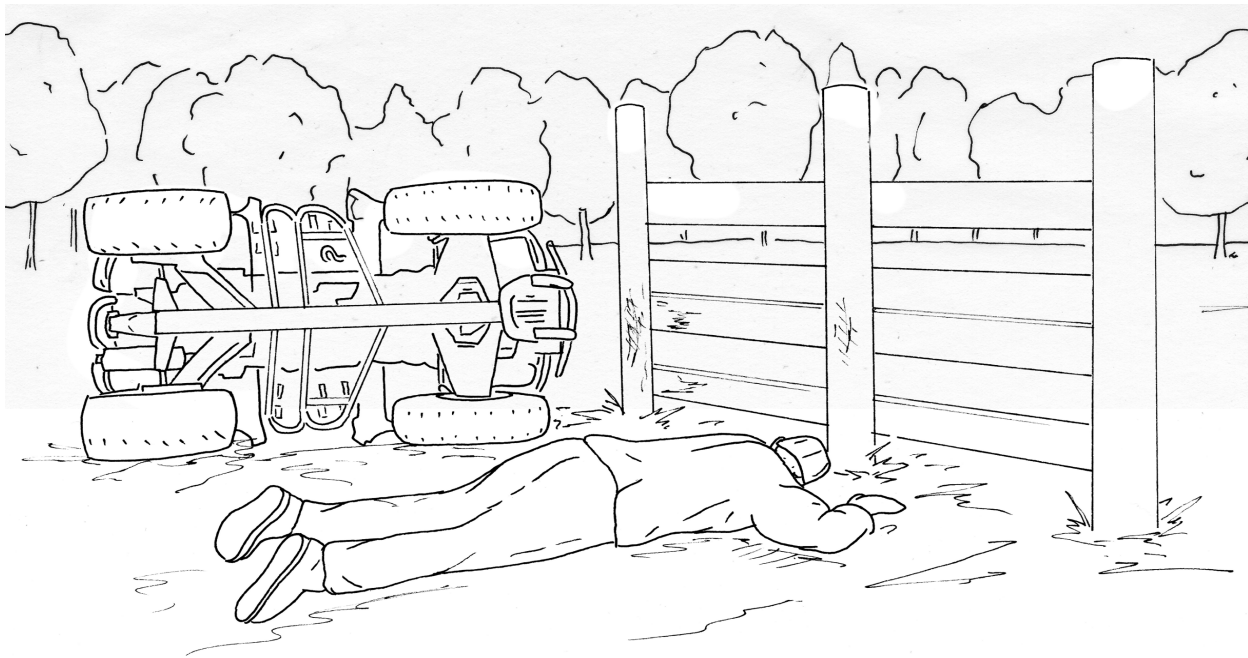
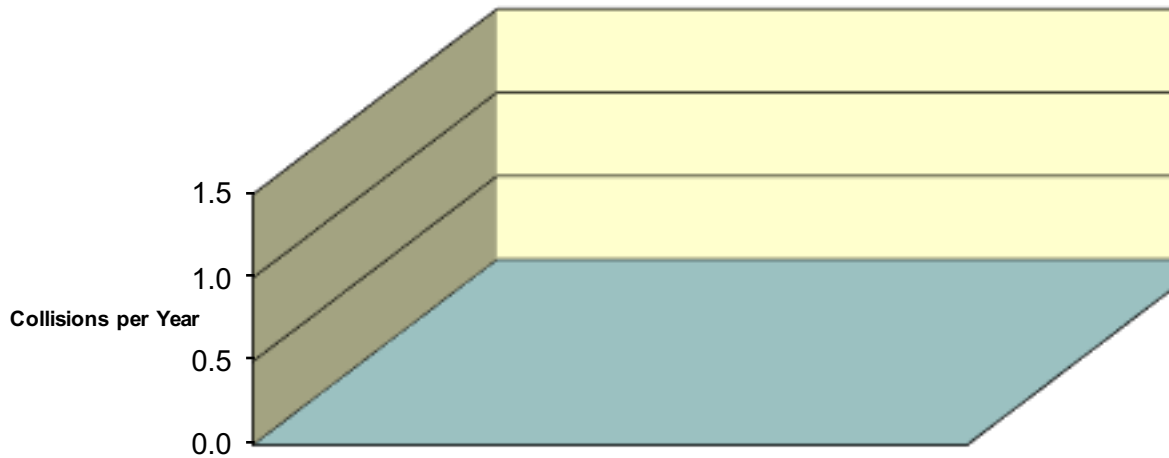


**WORKSHEET 10--Collision Likelihood**

Likelihood of a collision while driving

per year (2000 hours)  
0.0000% risk of a collision per driving hour

**Likelihood of an ATV Collision  
per 2000 Hours Driving Time**



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r





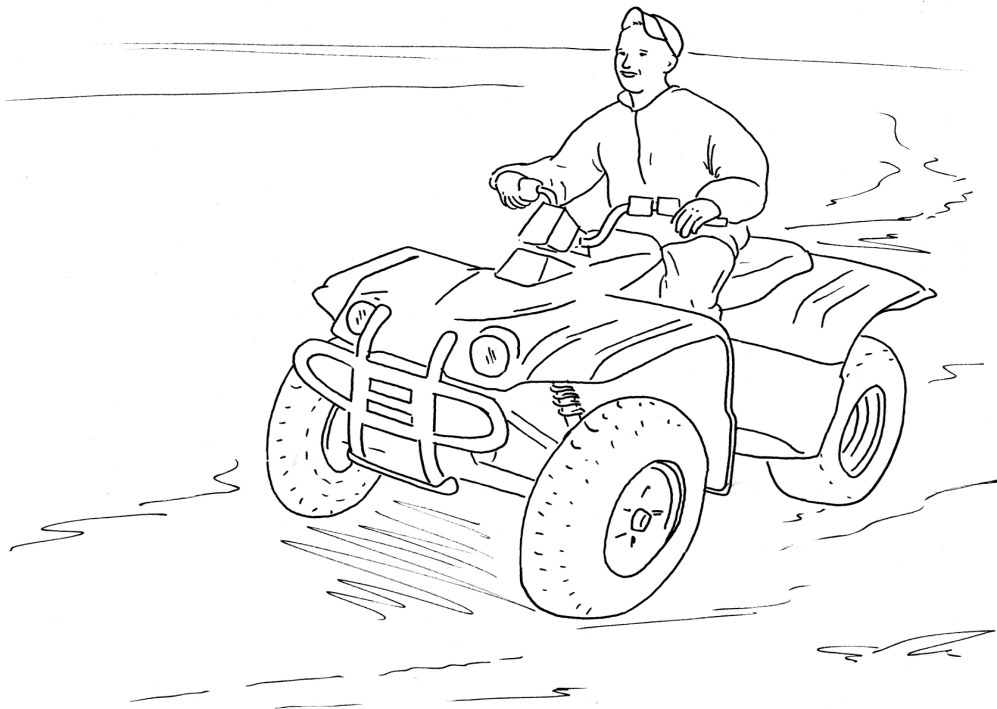
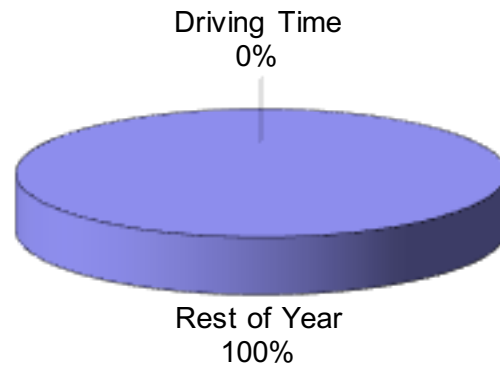
**WORKSHEET 11--Exposure (Hours)**

Likelihood of a collision while ATV driving

0.000 times per 0 hours  
0.0000% risk of collision per driving hc

Hours of driving time per year

**Driving Time per Year**



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our



**WORKSHEET 12--Helmet Effectiveness**

Likelihood of an ATV collision

0.000%

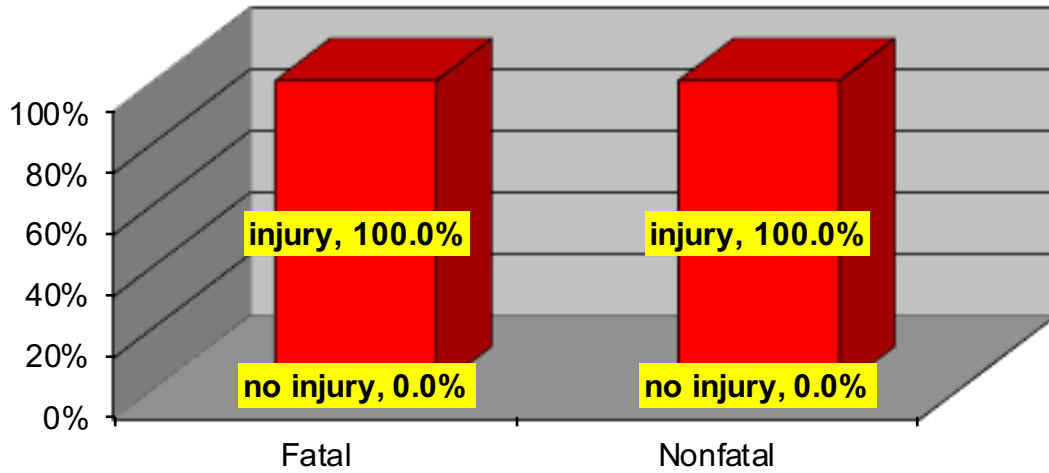
Hours of riding time per year

0

Effectiveness of a helmet to prevent a fatal injury

Effectiveness of a helmet to prevent a non-fatal injury


**Helmet Effectiveness**



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**WORKSHEET 13--Schedule and Inflation**

**Intervention Cost**

**Cost**

**\$0**

**Injury Cost**

Use *Comprehensive figures* from:

[www.nhtsa.dot.gov/people/economic/econimpact2000/appendix\\_a.htm](http://www.nhtsa.dot.gov/people/economic/econimpact2000/appendix_a.htm)

0

Inflation adjusted

	MAIS			
DEATH	fatal, 6	0.00		\$0
DISABILITY	5	0.00		\$0
HOSPITALIZED	3	0.00		\$0
OUTPATIENT	1	0.00		\$0
Injury Data Base Year				



**Inflation Calculator**

\$100

GO TO: <http://data.bls.gov/cgi-bin/cpicalc.pl>

in

0

has the same buying power as

fill in this value from the web site

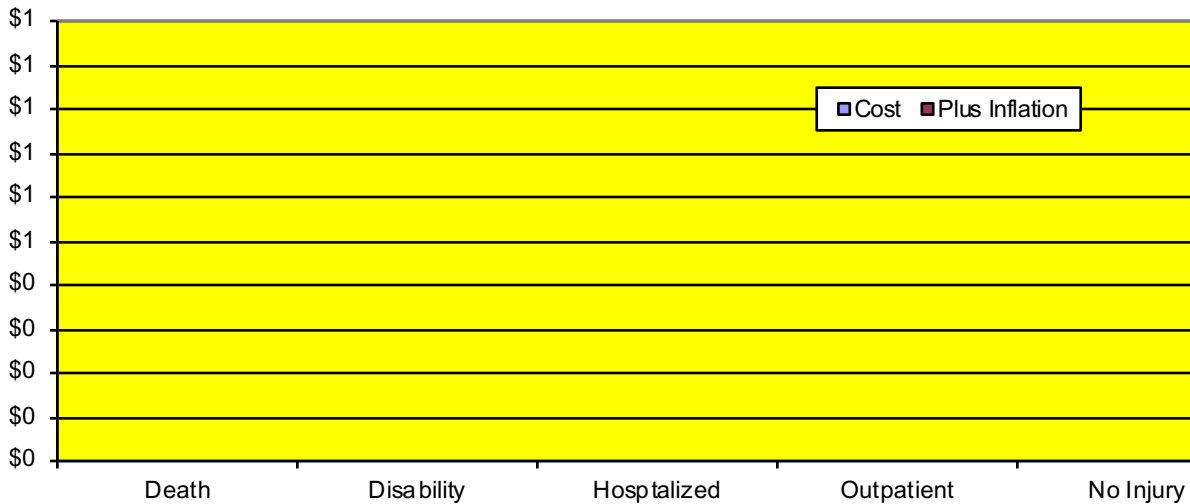
in 2007

**QUESTION 3.1. Observe the chart. What effect does inflation have on these costs?**

**Do the costs inflate over time?**

**FALSE**

**Comparison of Injury Costs With and Without Inflation**



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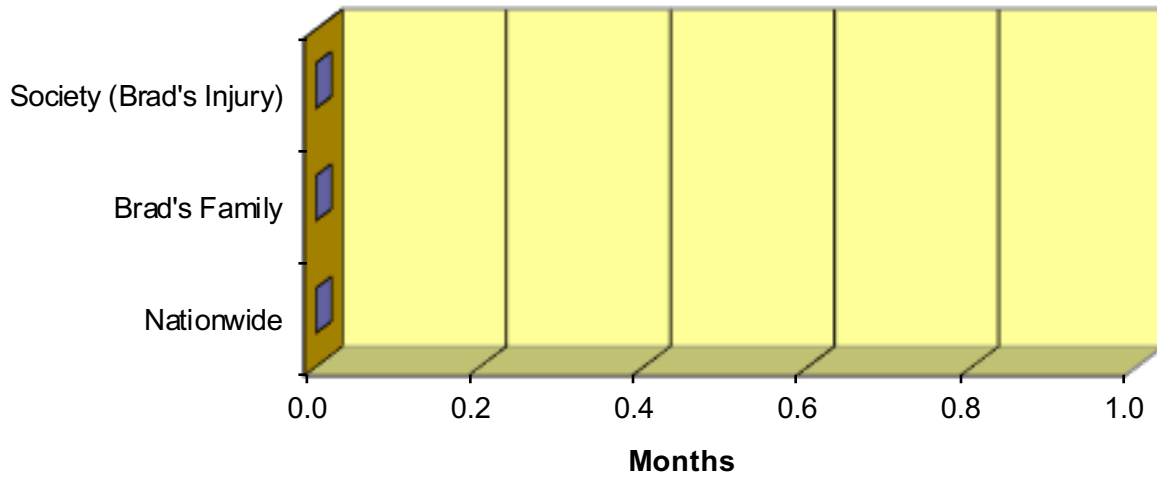
**WORKSHEET 15--Break-Even Analysis**

COSTS	At Risk	Brad's Experience	
	Population	Farm	Society
Intervention	\$0	\$0	\$0
Death	\$0		
Disability	\$0	\$0	\$0
Hospitalized	\$0		
Outpatient	\$0		
NET COST	\$0	\$0	\$0

BREAK-EVEN POINT	#DIV/0!	#DIV/0!	#DIV/0!
	months	months	months

**QUESTION 3.4.** Does the break-even point for the interventions to pay for themselves appear acceptable? **FALSE**

**Break-Even Point (Payback Period)**







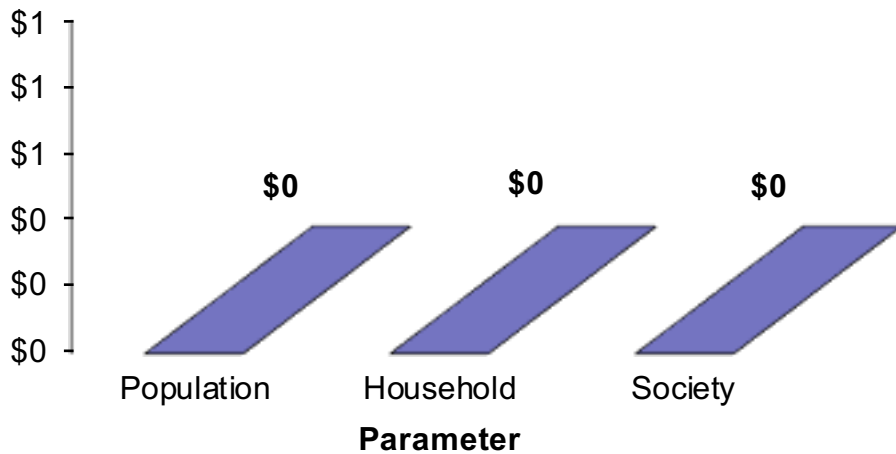
**WORKSHEET 14--Cost Effectiveness Analysis**

COSTS	At Risk	Brad's Experience	
	Population	Household	Society
Intervention	\$0	\$0	\$0
Death	\$0		
Disability	\$0	\$0	\$0
Hospitalized	\$0		
Outpatient	\$0		
NET COST	\$0	\$0	\$0
<b>INJURIES</b>			
Death	0.00000		
Disability	0.00000	1	1
Hospitalized	0.00000		
Outpatient	0.00000		
INJURY TOTAL	0.00000	1	1
<b>COST EFFECTIVENESS</b>	<b>#DIV/0!</b>	<b>\$0</b>	<b>\$0</b>
	per injury averted	per injury averted	

**QUESTION 3.2.** Are the NET COST results a cost or a savings? \_\_\_\_\_

**QUESTION 3.3.** Looking at the cost-effectiveness results, do the injury costs expected from the potential of a head injury from an ATV collision appear trivial? \_\_\_\_\_

**Cost Savings per Injury Averted**



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*rom* FALSE  
FALSE



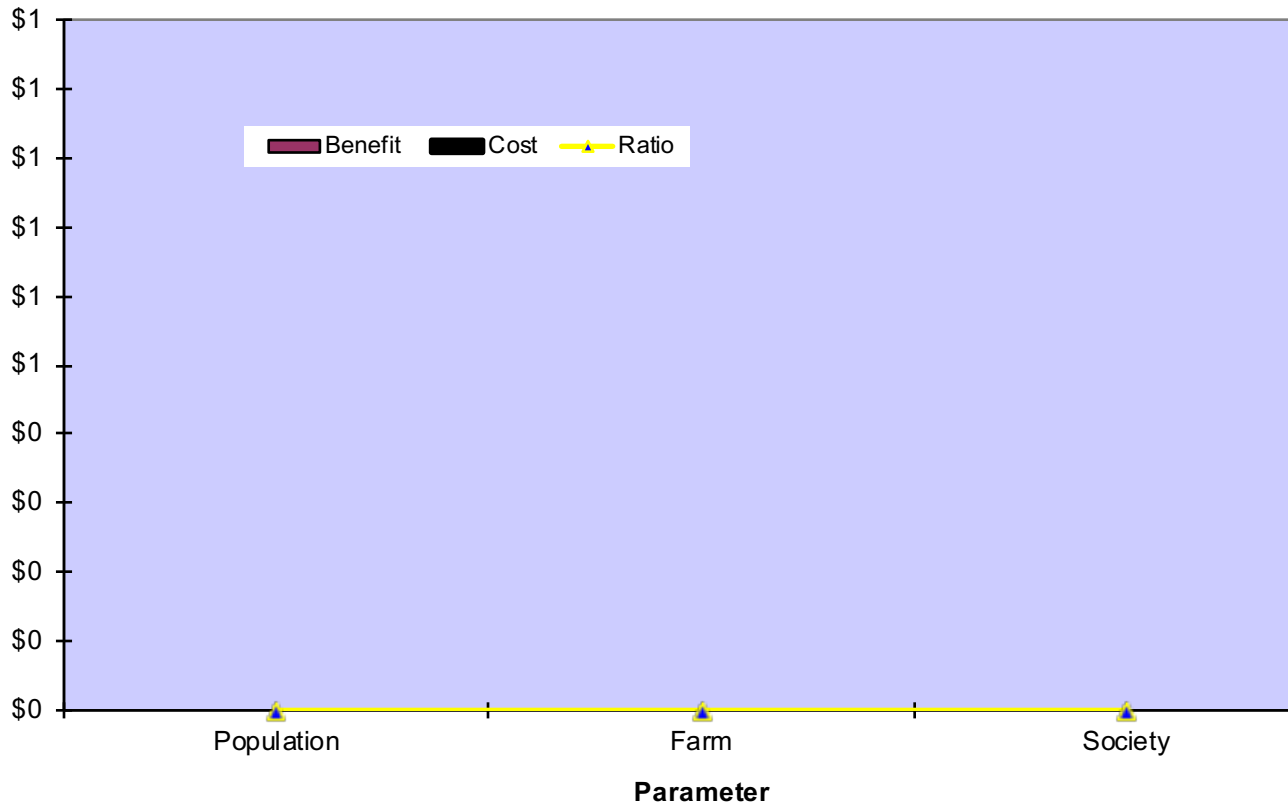
**WORKSHEET 16--Benefit/Cost Analysis**

COSTS	At Risk	Brad's Experience	
	Population	Farm	Society
Intervention	\$0	\$0	\$0
Death	\$0		
Disability	\$0	\$0	\$0
Hospitalized	\$0		
Outpatient	\$0		
<b>BENEFIT/COST RATIO</b>			
Benefit	\$0	\$0	\$0
Cost	\$0	\$0	\$0
Ratio (Benefit/Cost)	#DIV/0!	#DIV/0!	#DIV/0!

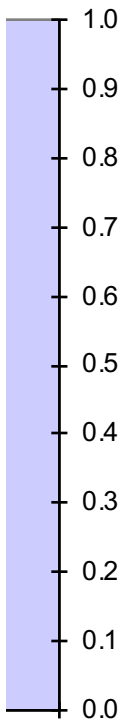
**QUESTION 3.5.** How does the benefit/cost ratio compare between Zach's statewide statistical analyses and Brad's Experience? Is it higher? \_\_\_\_\_ **FALSE**

**QUESTION 3.6.** Given Brad's Experience, does society have an economic stake in preventing overturn-related injuries on their farm? \_\_\_\_\_ **FALSE**

**Benefit/Cost Analysis**











**WORKSHEET 17--Profit Margin Analysis**

0.0%

Scroll the bar below to change the **Profit Margin**

Explicit cost for Brad's Injury

\$0

**#DIV/0!** sales necessary to replace the explicit cost to Brad's family

**Question 3.7** How many dollars of sales are need to recover the explicit cost with a 10% profit margin? \_\_\_\_\_ **#DIV/0!**

