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# *Child Restraint Use in 2002: Results from the 2002 NOPUS Controlled Intersection Study*

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# *NOPUS*

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The National Occupant Protection Use Survey provides the nation's only probability-based observed data on child restraint use on the nation's roads.



# Controlled Intersection Data Collection

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## Observe

shoulder belt use (child restraint use)

of driver (at most 3 children under 8 in the front  
and second seats)

in passenger vehicles with no commercial markings

at intersections controlled by a stop sign or stoplight  
during daylight hours.



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# New Methodologies in 2002



# *New Age Group and Restraint to Add Booster Seat Age Group*

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- **Age groups**

- ◆ 0 (infant), 1-3 (toddler), 4-7 (booster-age child), 8-15 (youth), 16-24 (young adult), 25-69 (adult), 70+ (senior)

- **Restraints**

- ◆ forward-facing child seat, rear-facing child seat, booster seat, belt

# *Increased Number of Sites*

- **2000 Controlled Intersection**
  - ◆ 700 sites
  - ◆ 12,000 vehicles
  - ◆ 290 children (ages 0-4)
    - 90 infants, 200 toddlers (ages 1-4)
- **2002 Controlled Intersection**
  - ◆ 1,100 sites
  - ◆ 38,000 vehicles
  - ◆ 3,500 children (ages 0-7)
    - 500 infants, 1,000 toddlers (ages 1-3), 2,000 booster-age children (ages 4-7)
- Decreased sampling error.



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# Child Restraint Use in 2002



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# Highlights

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- Restraint use for young children at record levels.
- Only 83% of 4-7 year-olds are restrained.
- Too many children are still in the front seat.

NEW  
ESTIMATE

NEW  
ESTIMATES





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# Highlights, Continued

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- Belted drivers continue to restrain their child passengers more than unbelted drivers.
- Male drivers are improving at restraining their child passengers.
- Evidence that education programs on the proper restraint for children are working.
  - ◆ But still some premature graduation.



# Child Restraint Use and Front Seat Occupancy

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Age	Restraint Use in		Percent in Front Seat in 2002
	2000	2002	
Infants (0 years old)	95%	99%	15%
Toddlers (1-4 in 2000; 1-3 in 2002)	91%	94%	10%
Booster age children (4-7 years old)	NA	83%	29%

- Infant and toddler use at record levels.
- Too many children are still in the front seat.
- First restraint estimate for 4-7 year olds.



# Restraint Use by Children in 2000 and 2002

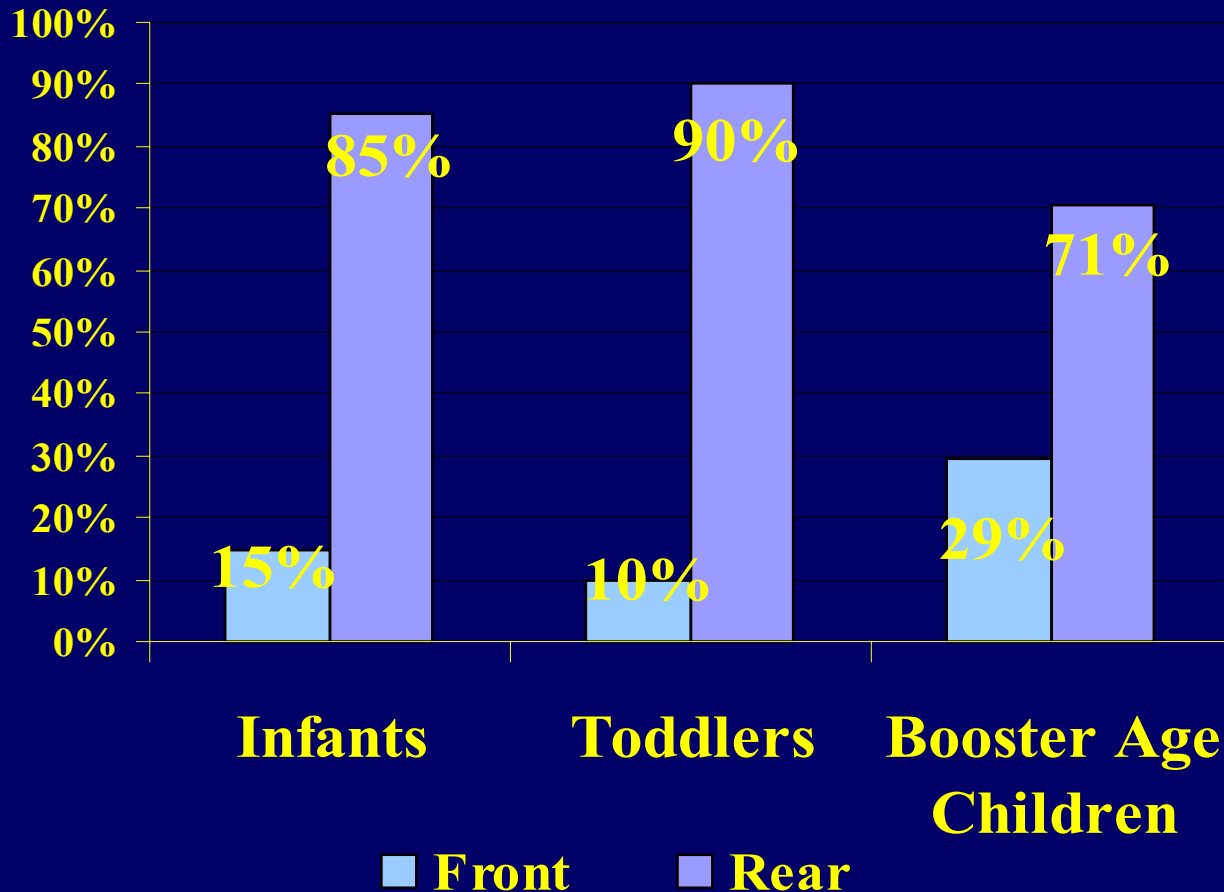
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Source: National Center for Statistics and Analysis, NHTSA, NOPUS, 2000, 2002

# Seating Positions of Children in 2002

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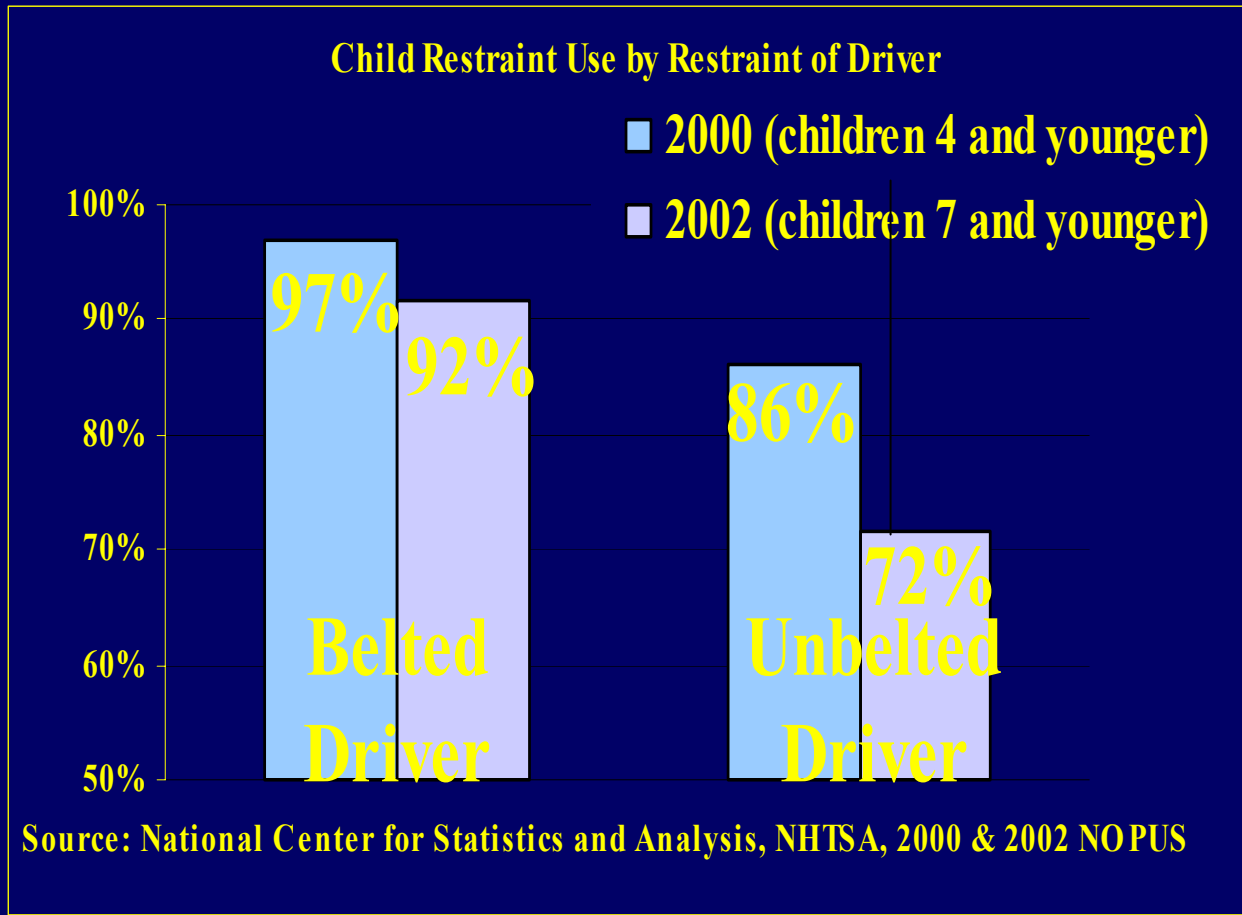


- Children under 13 shouldn't be in front seat.
- The percent of infants is particularly alarming.

Source: National Center for Statistics and Analysis, NHTSA, 2002 NOPUS

# Belted Drivers Restrain Their Children More than Unbelted Drivers.

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- We're 94% confident they do.
- Evidence that belt enforcement benefits kids.
- Overall decrease in restraint use might be from change in ages of children.



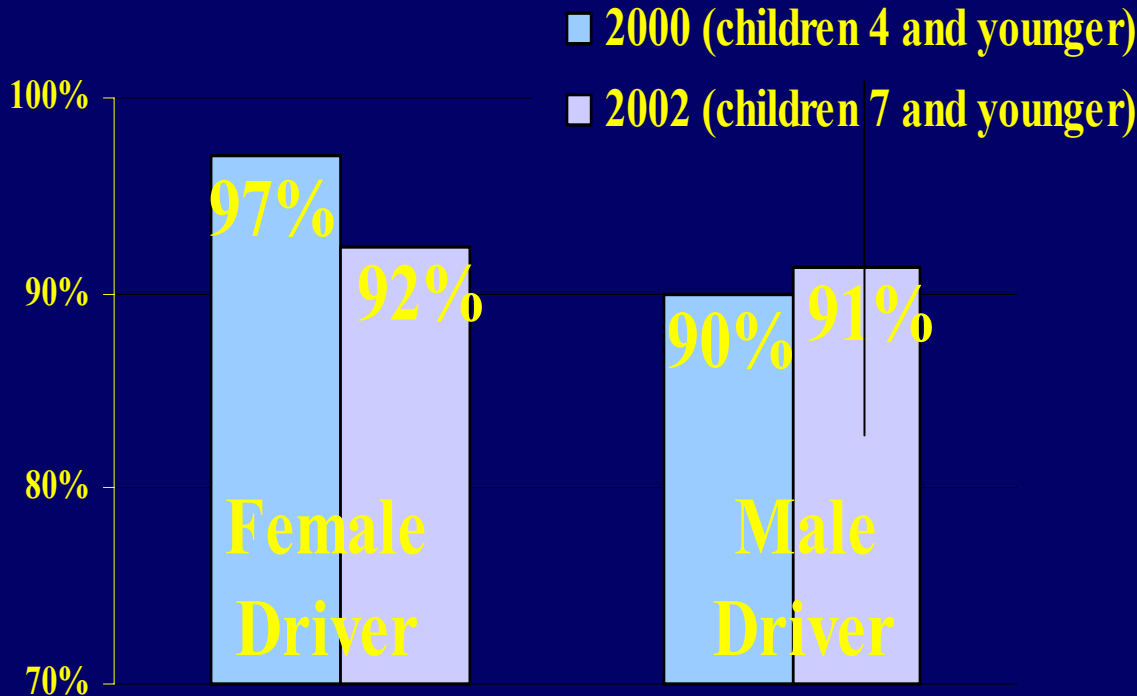
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# Males Are Improving at Restraining Their Child Passengers.

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### Child Restraint Use by Gender of Driver



Source: National Center for Statistics and Analysis, NHTSA, 2000 & 2002  
NOPUS

- Do females restrain children more than males do?
  - ◆ 74% confident they did in 2000; 7-point gap.
  - ◆ Hardly confident (9%) in 2002; 1-point gap.
- Decreases in use might be from change in ages.



# Education Programs on Proper Child Restraints Are Working

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- **More infants are in rear-facing safety seats.**
  - ◆ 32% in 2002, 24% in 2000, should see 100%.
- **More toddlers are in rear-facing safety seats.**
  - ◆ 62% in 2002, 39% in 2000, should see 92%.
- **73% of booster age kids are in boosters or belts.**
  - ◆ Don't know how many are in belts; 63% should be in boosters.



# *But There's Still Some Premature Graduation*

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- **Too many infants are in front-facing safety seats.**
  - ◆ 66% in 2002, 68% in 2000, should see none.
- **Too many toddlers are in belts or boosters.**
  - ◆ 29% in 2002, 45% in 2000, should see none.
- **Too few 4-7 year olds are in front-facing safety seats.**
  - ◆ 9% in 2002, should see 37%.





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# Restraint Use by Infants

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Restraint	Use in		What We Should See*
	2000	2002#	
Front-facing safety seat	68%	66%	0%
Rear-facing safety seat	24%	32%	100%
High-back booster seat	NA	1%	0%
Belt or backless booster	3%	1%	0%
No restraint observed	5%	1%	0%

#Totals do not sum to 100%, due to rounding.

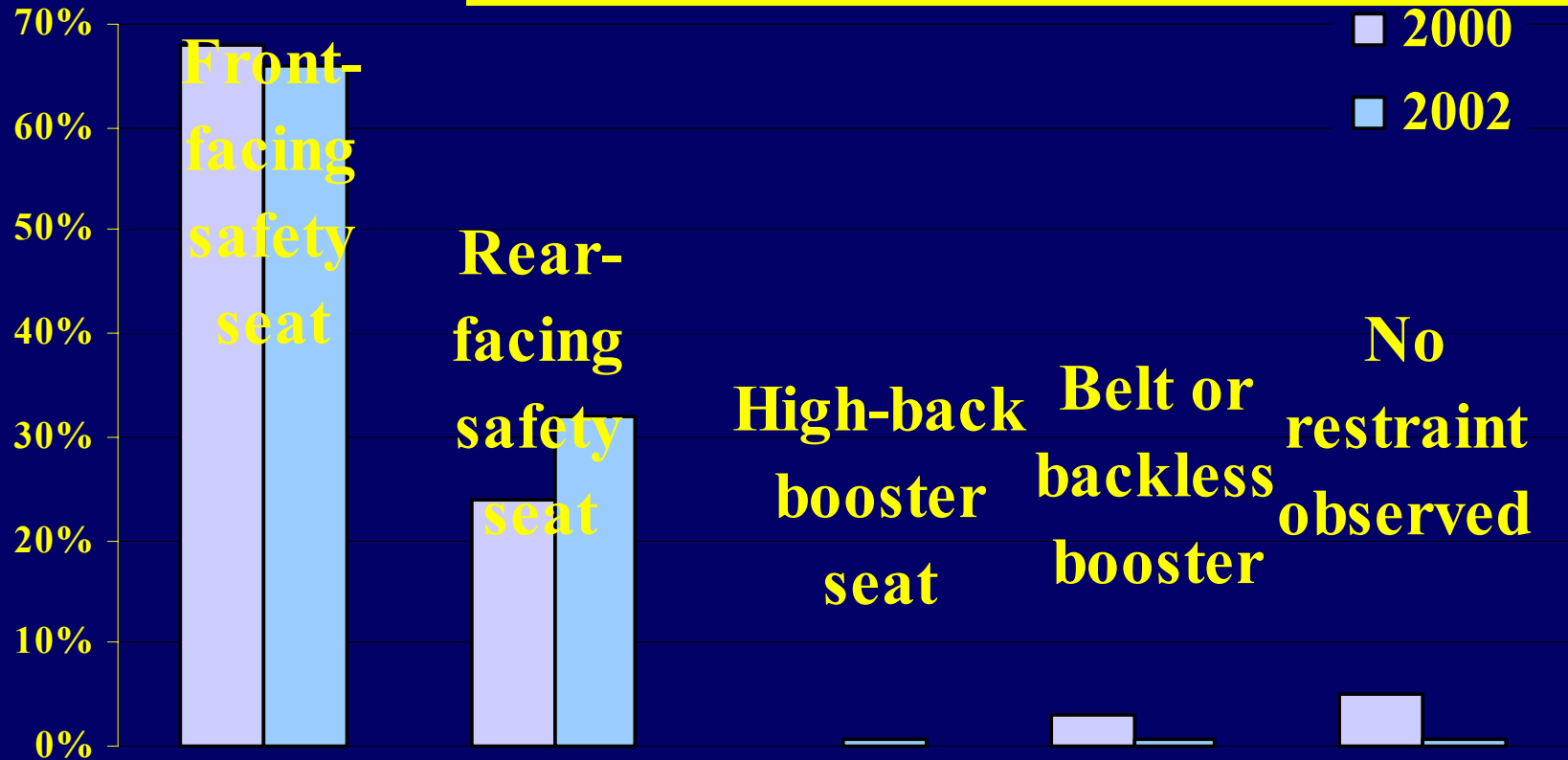
\*Based on NHTSA recommendations.



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# Infants, Continued

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Source: National Center for Statistics and Analysis, NHTSA, 2000 & 2002 NOPUS



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# Restraint Use by Toddlers

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Restraint	Use# by		What We Should See*
	1-4 Year Olds in 2000	1-3 Year Olds in 2002	
Front-facing safety seat	39%	62%	92%
Rear-facing safety seat	8%	4%	8%
High-back booster seat	NA	16%	0%
Belt or backless booster	45%	13%	0%
No restraint observed	9%	6%	0%

#Totals do not sum to 100% due to rounding.

Green: Significant change.

\*Based on NHTSA recommendations and CDC data.

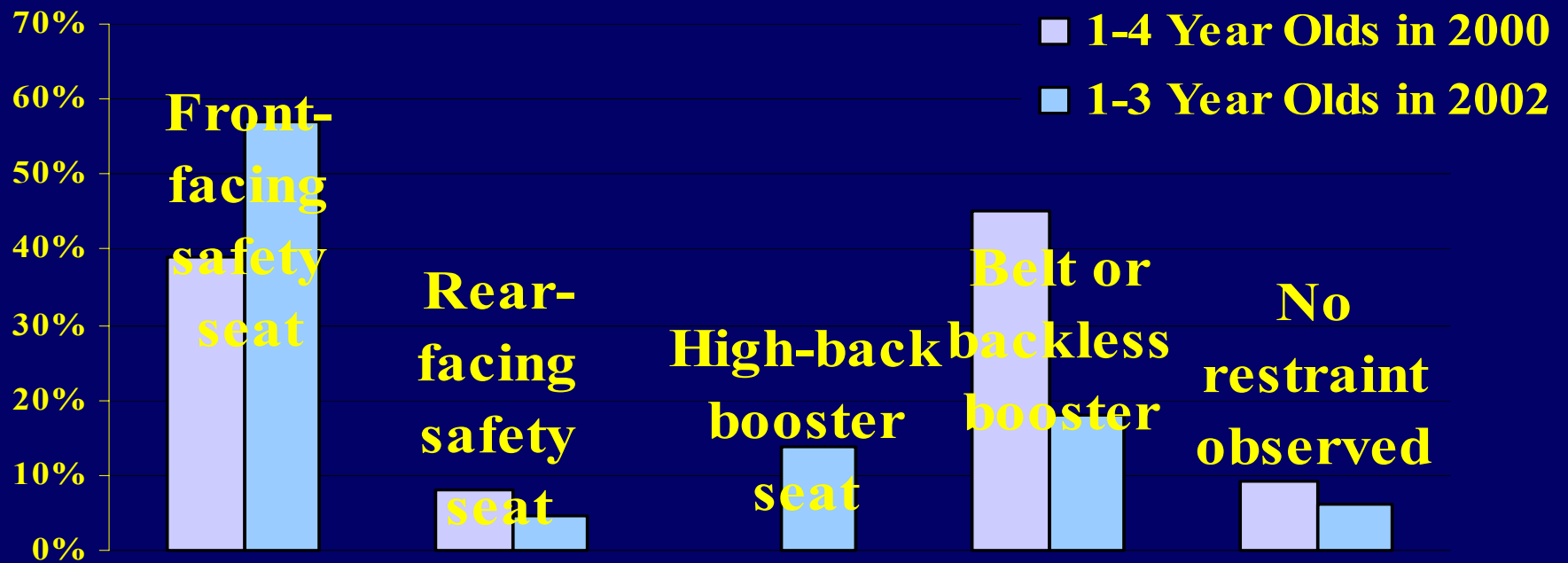
- Changes in use could be due to changes in age.



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# Toddlers, Continued

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Source: National Center for Statistics and Analysis, NHTSA, 2000 & 2002 NOPUS



# Restraint Use by 4-7 Year Olds

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Restraint	Use in 2002	What We Should See*
Front-facing safety seat	9%	37%
Rear-facing safety seat	1%	0%
High-back booster seat	6%	
Belt or backless booster	67%	
No restraint observed	17%	0%

Should sum to 63%.

\*Based on NHTSA recommendations and CDC data.

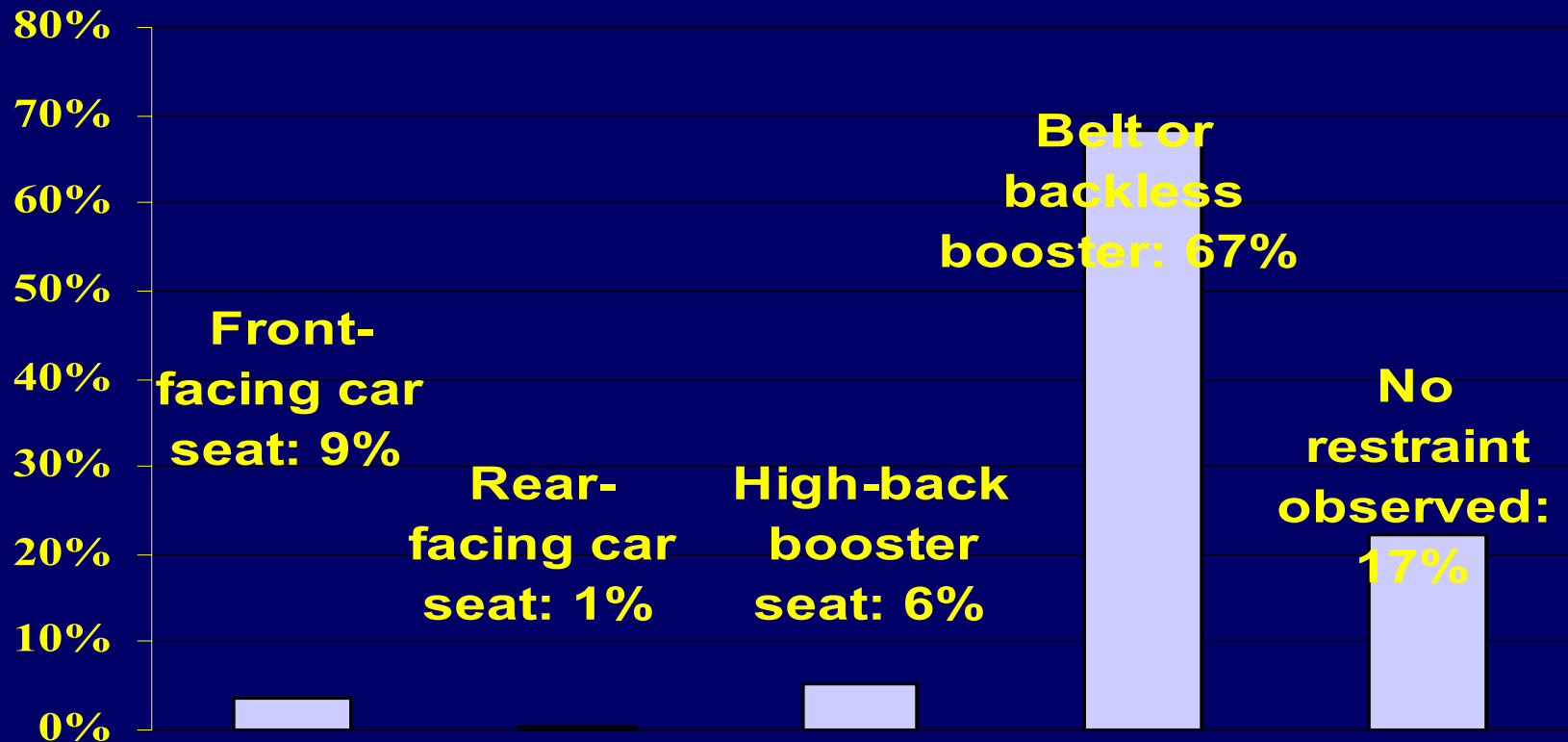
- **SAFEKIDS:** 37% of those who should be in a booster are.
- Observational error in estimating age.



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# 4-7 Year Olds, Continued

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Source: National Center for Statistics and Analysis, NHTSA, 2000 & 2002 NOPUS