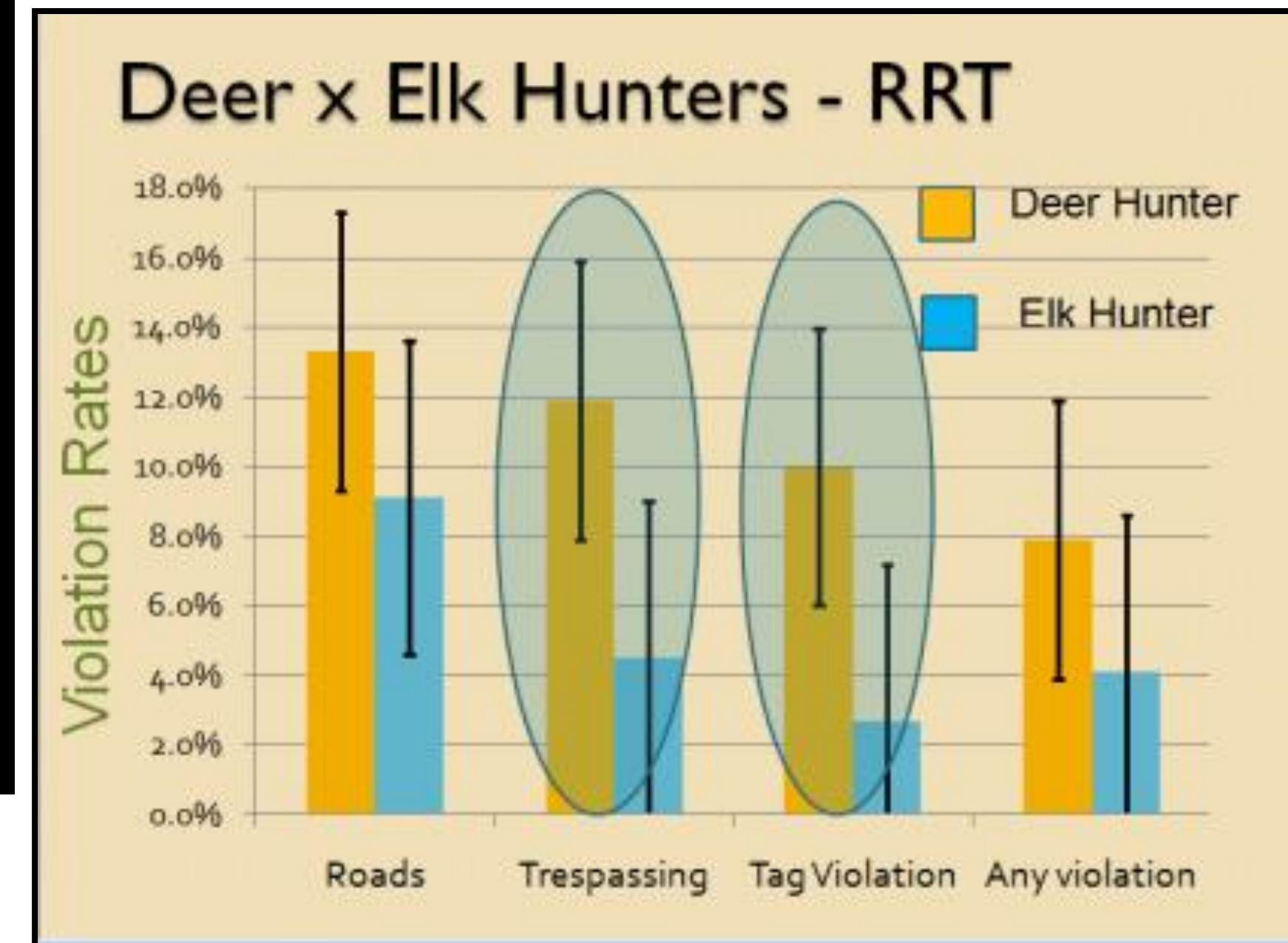




PROFILING POACHERS: Using Randomized Response Technique to Estimate Rates of Hunting Violations by Deer and Elk Hunters in Washington State

By Anthony Novack, Washington State Department of Fish and Wildlife



Summary

The Randomized Response Technique (RRT) was used to assess rates of illegal hunting activity. RRT allows respondents to answer sensitive questions about participation in illegal activity without self incrimination. During 16 days from April 2011 to Mar 2012, over 2500 active deer and elk hunters from Washington state were surveyed while attending regional sportsmen's shows or visiting the Cabelas Retail store in Lacey.

Group Comparisons

Significant group differences derived from difference of proportions test using pooled variances and threshold $p < .1$

Road Violations

- 🔴 Private Land
- 🔴 Age 18-34
- 🔴 < 2.5 Hours from home
- 🔴 Members of Hunting Organizations (e.g., RMEF)

Trespassing:

- 🔴 Deer Hunters
- 🔴 Successful hunters – harvested 1 or more animals in past 2 years

Tagging Violations

- 🔴 Deer Hunters
- 🔴 Former Military
- 🔴 Member of Shooting Organization (e.g. NRA)
- 🔴 Region 3 of eastern Washington

RRT – Method

- 1) Respondent flips coin,
- 2) Randomly selects one question from two possible envelopes
- 3) Provides a single yes/no response on survey

Question is either sensitive: (e.g) **Did you trespass while hunting?**
or non-sensitive: **Was your coin flip = heads?**



Probabilities – Randomized Response

	Yes	No
Coin Toss	25%	25%
Sensitive Question		50%

* If everyone complies with the law then

25% Yes Responses	75% No
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0 %
Violation Rate



Results

Road Violation: During the past two years have you driven your vehicle onto a prohibited road or area while deer/elk hunting?
Violation Rate: 11.6% ± 3%

Trespassing During the past two years have you trespassed onto private property while deer/elk hunting
Violation rate: 8.7% ± 3%

Tagging Violation During the past **five** years, have you done any of the following?
* Allowed someone else to tag a deer/elk that you killed or,
* Tagged a deer/elk killed by someone else or,
* Killed and gutted a deer/elk then, left the carcass untagged
Violation Rate: 7.0% ± 3%

