Waterfowl Hunting Videos: Who’s Watching and Why?

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Introduction

• Media have been known to influence:
  – Attitudes
  – Cultural Norms
  – Social behavior and perceived reality
  – Identity
  – Normative behaviors
Introduction

• TV watching
  – Children (2-11 yrs.) watch 117 hrs/month
  – Adults (18-34 yrs.) watch 131 hrs/month
  – Continues to increase by age (Nielsen 2011)

• No previous research on waterfowl hunting videos
  – Anecdotal evidence suggested frequent use by waterfowl hunters
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Introduction

• Research questions:
  – Who’s watching videos?
  – Can we predict who is watching the videos?
Introduction

• Hypothesis 1: Age will influence whether hunters watch videos
• Hypothesis 2: Belief toward waterfowl hunting will influence whether hunters watch videos
• Hypothesis 3: Past participation will influence whether hunters watch videos
Methods

• Mail survey to Illinois Waterfowl Hunters
  – 5,000 State Waterfowl Stamp purchasers
  – Hunters mailed questionnaire, cover letter, stamped return envelope, & postcard every 14 days
  – 3 waves of mailings (questionnaire/postcard)
  – 52% response rate
Methods

• Dependent Variable:
  – Do you watch waterfowl hunting videos?
    • Yes or No

• Independent variables:
  – Age
    • Please give your age (continuous)
  – Belief
    • Waterfowl hunting is one of the most important activities in my life (7-point Likert-type; continuous)
  – Past Experience
    • Total days hunted for ducks and geese (continuous)
    • Which of the following best describes how often you hunt waterfowl in Illinois? (Every Year to Never-categorical)
Methods

– T tests:
  • Age
  • Belief
  • Days Hunting

– Bivariate test:
  • How often do you waterfowl hunt?

– Binary Logistic regression
  • Included all significant variables
  • Variables entered simultaneously
## Results

Do you watch videos?  Yes – 50% ($n = 1,178$)  
No – 50% ($n = 1,174$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Yes</th>
<th>No</th>
<th>$t$-value</th>
<th>Cohen’s $d$</th>
<th>$p$ - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age ($\bar{x}$)</td>
<td>44</td>
<td>51</td>
<td>11.27</td>
<td>.46</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>WF Importance ($\bar{x}$)</td>
<td>4.4</td>
<td>3.3</td>
<td>14.44</td>
<td>.60</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Days Hunting ($\bar{x}$)</td>
<td>18</td>
<td>10</td>
<td>9.29</td>
<td>.38</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
Results

• Past Experience - How often do you hunt?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every Year</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Most Years</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Occasionally</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Rarely</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>26%</td>
<td></td>
</tr>
</tbody>
</table>

\(\chi^2 = 148.29, p < .001, \text{Cramer’s } V = .25\)
## Results

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>$\beta$</th>
<th>Wald</th>
<th>Odds Ratio</th>
<th>$p$ - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.03</td>
<td>96.90</td>
<td>.970</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>WF Importance</td>
<td>.21</td>
<td>54.34</td>
<td>1.24</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Days Hunting</td>
<td>.01</td>
<td>2.67</td>
<td>1.00</td>
<td>.102</td>
</tr>
<tr>
<td>Frequency Hunting</td>
<td>-.22</td>
<td>19.31</td>
<td>.80</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Nagelkerke $R^2 = .18$; 65% correctly classified
Which of the following best describes how often you hunt WF in IL?

- Every year
- Most years
- Occasional years
- Rarely
- Never
Waterfowl hunting is one of the most important activities in my life.

- Strongly Disagree
- Disagree
- Slightly Disagree
- Unsure
- Slightly Agree
- Agree
- Strongly Agree

Please give your age.
Conclusions

• Age, belief, & yearly participation influenced video watching
  – TV watching increases by age (Nielsen 2011)
  – Age & belief better predictors
  – Young, avid waterfowl hunters are more likely to watch videos
  – Older hunters may be in different sportsmen stage
  – Older hunters may not need to learn new hunting techniques
Conclusions

• Management implications
  – Hunters aging, younger cohort replacing
  – This cohort is more likely to watch videos
  – Are videos having any influence on behaviors?
  – Ethical issues: exposure to certain media lowers empathy
  – Biased band return data?
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  – Nate Greenspan

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  – Dan Holm
  – John Buhnerkempe
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Questions?

A new study says TV desensitizes children by not showing the consequences of violence, so let's turn it off...

Back away. Slowly.
How Often Do You Watch?

- Every Week: 14%
- About 3x's a month: 16%
- 5-12 x's a year: 35%
- < 5 x's a year: 36%
Why do you watch videos?

- New Techniques: 32%, 41
- Entertainment: 29%, 46
- Watch hurts in...: 14%, 46
- Rememberance: 6%, 54
- Other: 19%, 49
## 2011 Duck Harvest

### Watch Videos?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>t-value</th>
<th>P</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\bar{x}$ of mallards harvested</td>
<td>4.1</td>
<td>2.3</td>
<td>6.13</td>
<td>$P&lt;.001$</td>
<td>.27</td>
</tr>
<tr>
<td>$\bar{x}$ of days hunted</td>
<td>11.3 days</td>
<td>7.1 days</td>
<td>7.78</td>
<td>$P&lt;.001$</td>
<td>.35</td>
</tr>
<tr>
<td>$\bar{x}$ of total ducks/days</td>
<td>.71 ducks/day</td>
<td>.62 ducks/day</td>
<td>2.57</td>
<td>$P &lt; .05$</td>
<td>.17</td>
</tr>
</tbody>
</table>
Ranking of a Banded Bird

Watch Videos?

- **No**: 30%
- **Yes**: 47%

\[ \chi^2 = 46.46 \quad p < .001, \quad V = .17 \]