Evaluating Influence of R3 Treatments on Fishing License Sales

Mission: To protect, conserve, and enhance the Commonwealth’s aquatic resources and provide fishing and boating opportunities
R3 Treatment Outcomes

- **Short-term**
  - Increase knowledge (PFBC, fishing opportunities), confidence, and skills
  - Increase motivation
  - Indicator behaviors

- **Long-term**
  - Influence license purchase
  - Fish more
Study Questions

• Feasible on large scale?
  • Nearly 30,000 participant records
  • 14.2 million transaction records

• Reaching target audience?

• License before, during, after treatment?

• R3 stage?

• Pre- and post-treatment differences?
PALS Data Mining

1. **Data collected from participants**
   - Name
   - DOB
   - Address

2. **PALS Transaction Records 2008-to date=14.2 million**
Contest Entry @ Events 2016-2017

Angler Award Program 2010-2017

Family Fishing Programs 2011-2017

Family Fly Fishing 2012-2017

Instructor Training 2008-2017

Late Season Discount 10/16-12/16
Methods

• Clean-up/remove duplicates, format
  • Participant  (kept earliest date)
  • PALS

• Search for match in PALS records
  • If yes, then license buying history

• Compare purchase date with treatment date
• Post treatment purchase

Valid license for given year includes
• Annual or short-term license
• Multi-year
• SR. Lifetime
<table>
<thead>
<tr>
<th>Treatment</th>
<th>Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contest entries at shows &amp; expos</td>
<td>10,506</td>
</tr>
<tr>
<td>Angler Award Program</td>
<td>5,020</td>
</tr>
<tr>
<td>Family Fishing Program</td>
<td>2,751</td>
</tr>
<tr>
<td>Fly Fishing Program</td>
<td>332</td>
</tr>
<tr>
<td>Fishing Skills Instructor Training</td>
<td>529</td>
</tr>
<tr>
<td>Late Season Discount</td>
<td>6,597</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29,042</strong></td>
</tr>
</tbody>
</table>
No Valid License at Treatment

- Late Season Discount: 97.3%
- Contest: 90.3%
- FFP: 88.7%
- Fly Fishing: 74.4%
- FSI: 70.5%
- Angler Awards: 58.4%
Participants younger than age 45

*20% of all angler award entries are younger than 16*
Female Participants

- Fly: 86.6%
- FFP: 32.4%
- Contest: 27.9%
- FSI: 27.5%
- PALS-2017: 18.7%
- Late Season Discount: 13.0%
- Angler Award: 11.5%
## Potential Buyers

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFP</td>
<td>76.6%</td>
</tr>
<tr>
<td>Contest</td>
<td>65.4%</td>
</tr>
<tr>
<td>Fly Fishing</td>
<td>61.1%</td>
</tr>
<tr>
<td>FSI</td>
<td>49.8%</td>
</tr>
<tr>
<td>Angler Awards</td>
<td>47.8%</td>
</tr>
<tr>
<td>Late Season Discount</td>
<td>41.1%</td>
</tr>
</tbody>
</table>
Purchase 5-yrs Post-Treatment

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean Annual Purchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angler Award</td>
<td>76%</td>
</tr>
<tr>
<td>FSI Training</td>
<td>72%</td>
</tr>
<tr>
<td>PALS</td>
<td>58%</td>
</tr>
<tr>
<td>Family Fishing Program</td>
<td>49%</td>
</tr>
</tbody>
</table>
Conversion

Percentage of those with no pre-treatment license who purchase w/in 18 months post-treatment

- Reactivated lapsed
- Recruited new
Conversion Rate

- Late Season Discount: 67.0%
- Fly Fishing: 34.8%
- Family Fishing: 13.3%
- Skills Instructor: 9.6%
- Angler Awards: 6.7%
- Contests: 4.9%
Churn

Mean Churn, 2008-2017

- **PALS 2017**: 38.6%
- **Late Season Discount**: 33.3%
- **FFP**: 27.9%
- **Fly Fishing**: 18.0%
- **Contest**: 16.9%
- **FSI**: 11.6%
- **Angler Award**: 6.5%

Sources: FSI Contest Fly Fishing PALS 2017
Conclusions

• Feasible
  • Volume of records
  • Comparisons possible

• Data quality is critical
  • Confidence in lack of match

• Most are reaching potential customers
  • Younger than PALS
  • More diverse than PALS
Smaller, focused program higher conversion than large-scale
  - Fly Fishing=38%
  - Family Fishing=13%
  - Angler Award=7%

Ed pgm lower churn/higher purch. frequency than PALS
Follow-up Actions: Capture of Participant Info

- Standardized procedure for staff
  - Registration
  - Evaluation
- Modified forms
- Apply across treatments
- Web-based system for education programs
Other Actions

• Share internally & externally
• Adjust expectations for treatments
• Refine program outcomes
• Build internal support for smaller & focused program
Next Steps

- Incorporate results, R3 plan
- Long-term (5 years)
  - Repeat analysis
    - Sooner for fly fishing
  - Reinstate participant eval for all education pgms