



# 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



# R3 Treatments Evaluated



**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

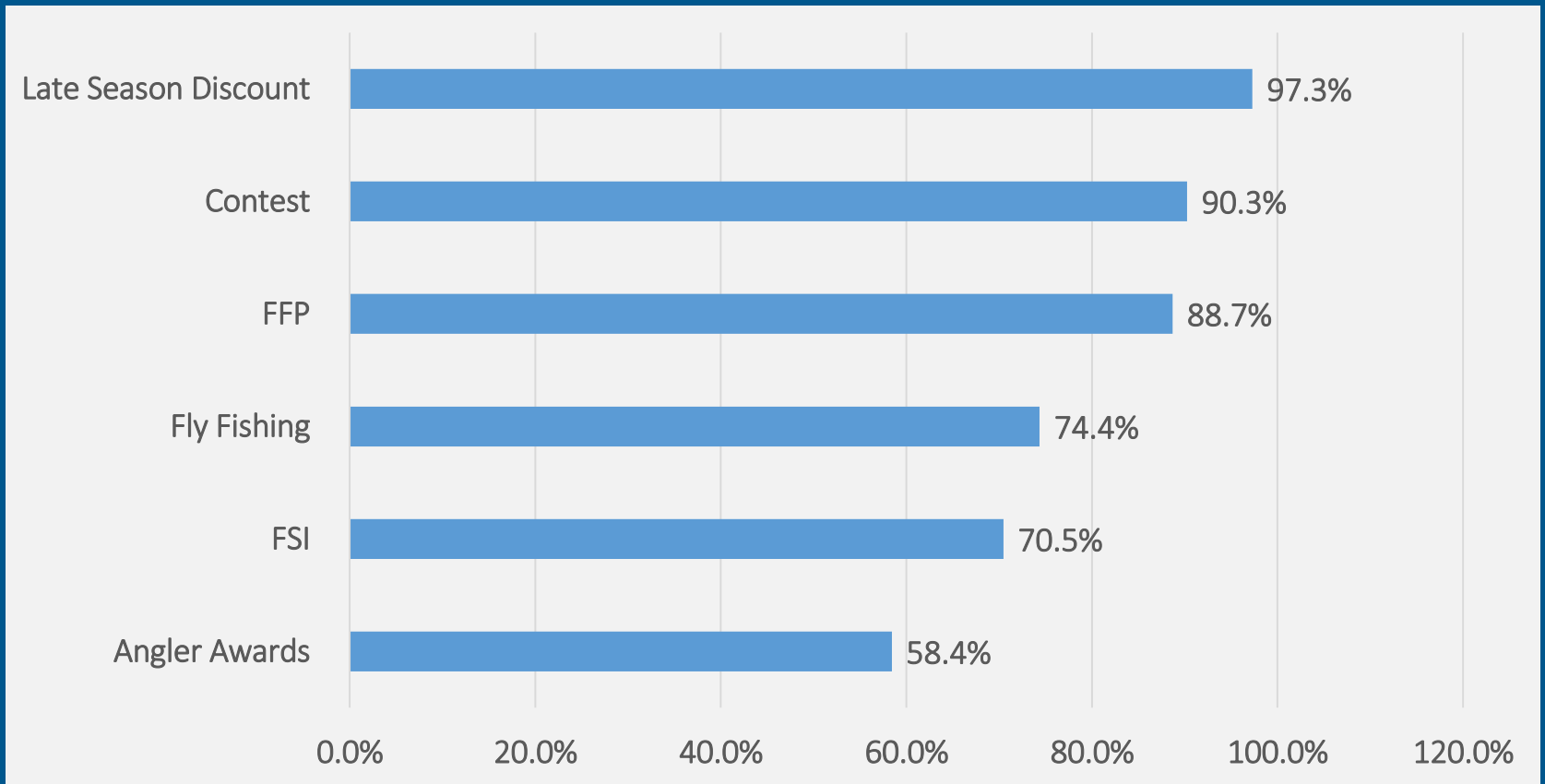


# Treatment Sample

Treatment	Records
Contest entries at shows & expos	10,506
Angler Award Program	5,020
Family Fishing Program	2,751
Fly Fishing Program	332
Fishing Skills Instructor Training	529
Late Season Discount	6,597
Total	29,042

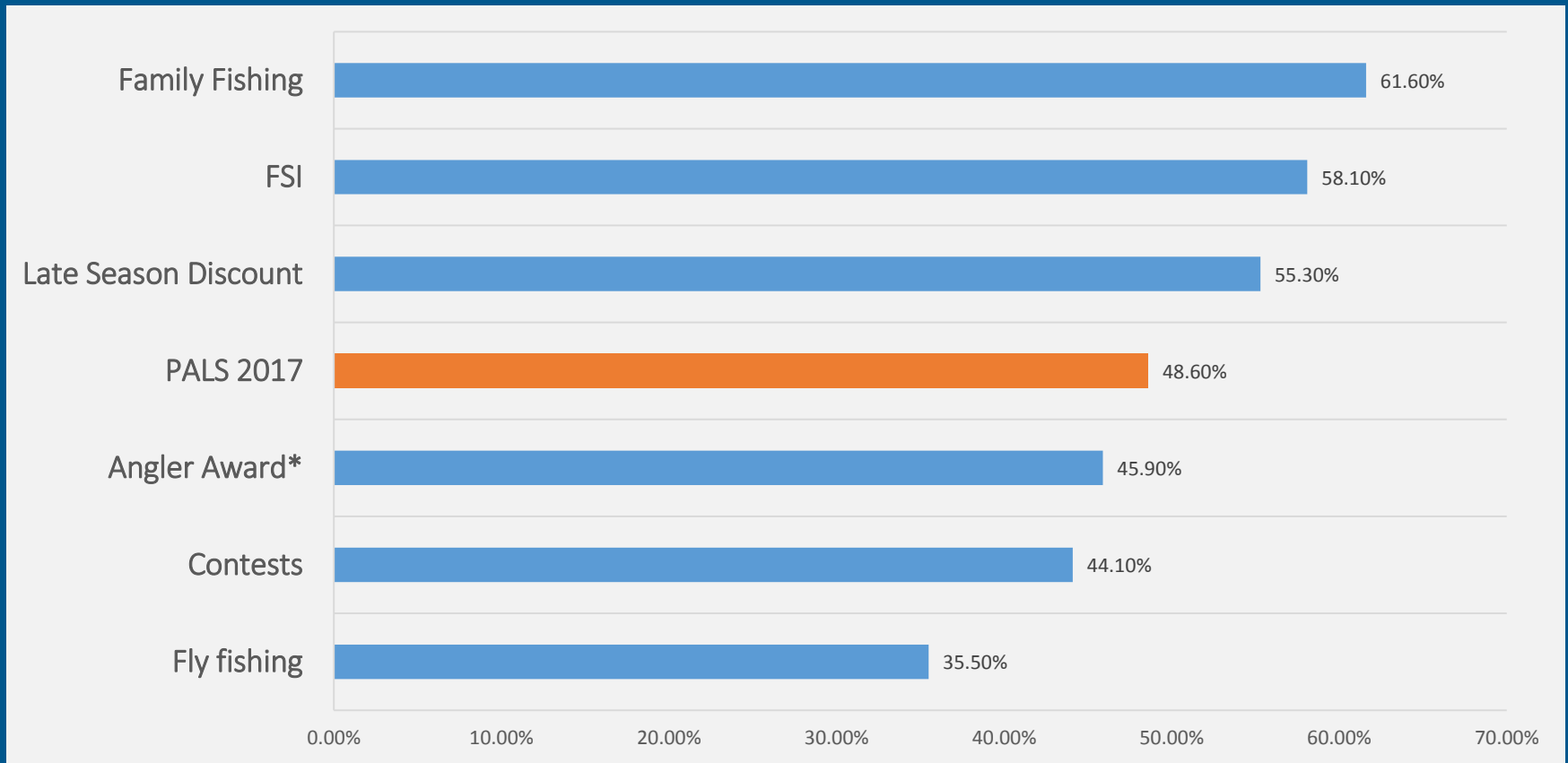


# No Valid License at Treatment





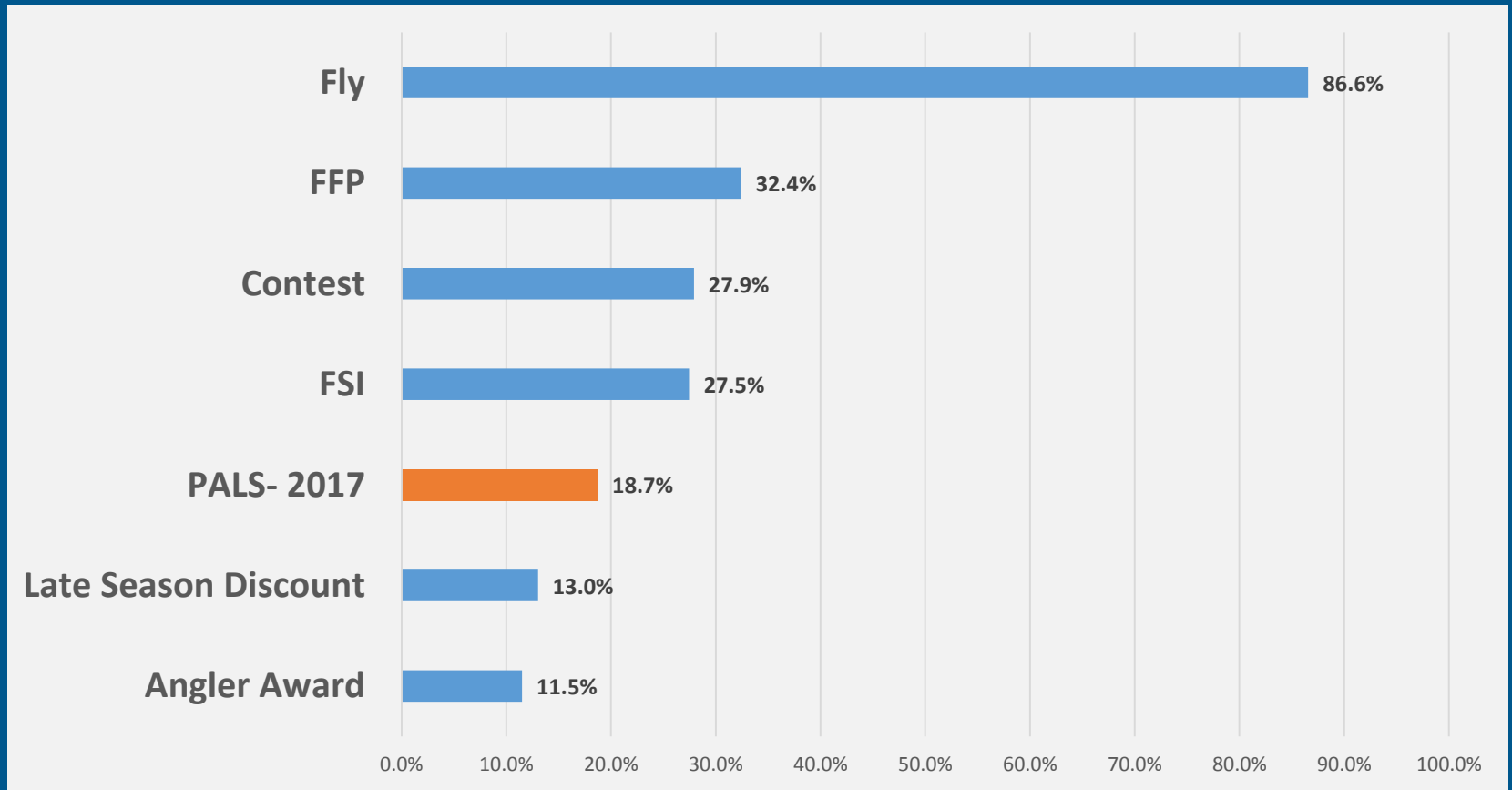
# Participants younger than age 45



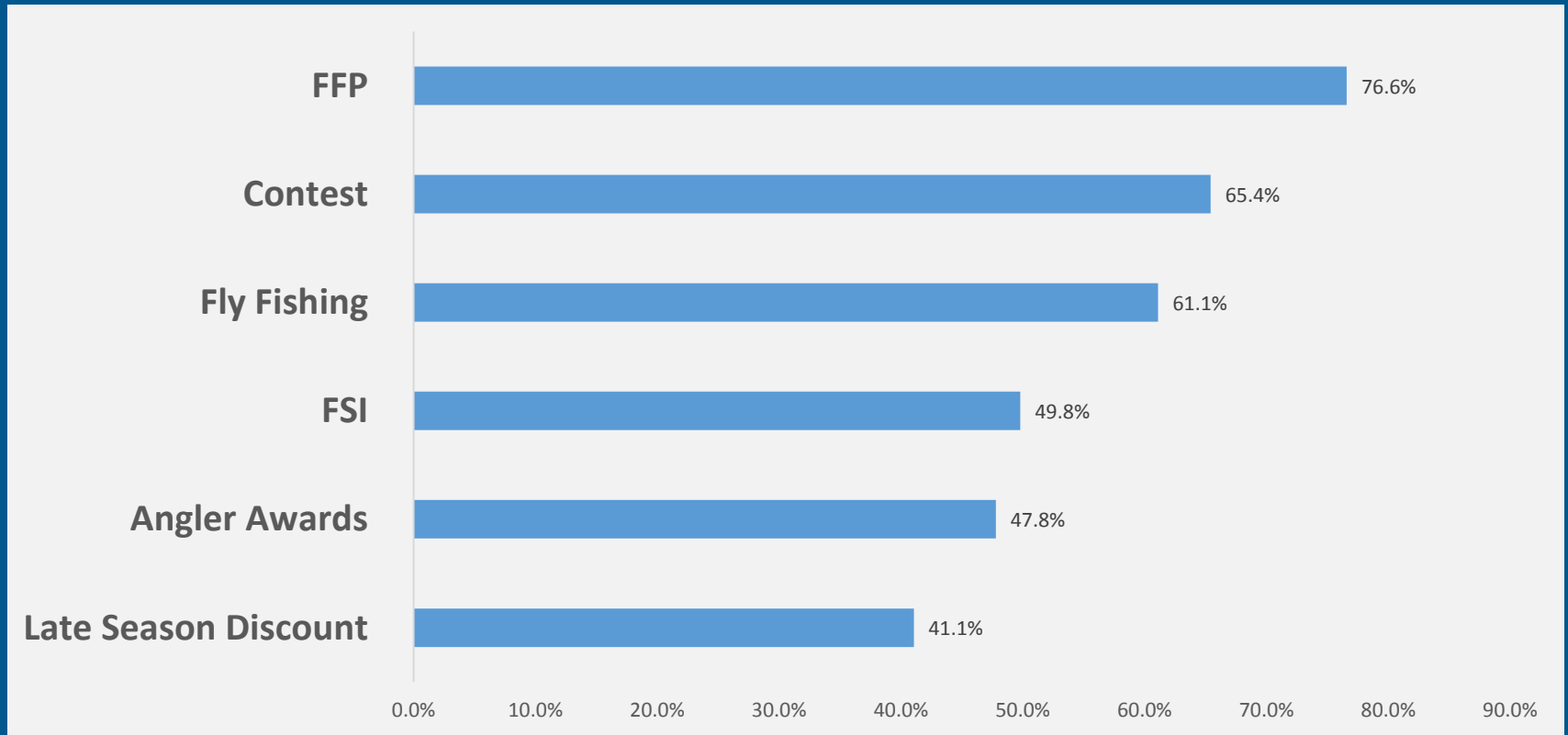
*\*20% of all angler award entries are younger than 16*



# Female Participants

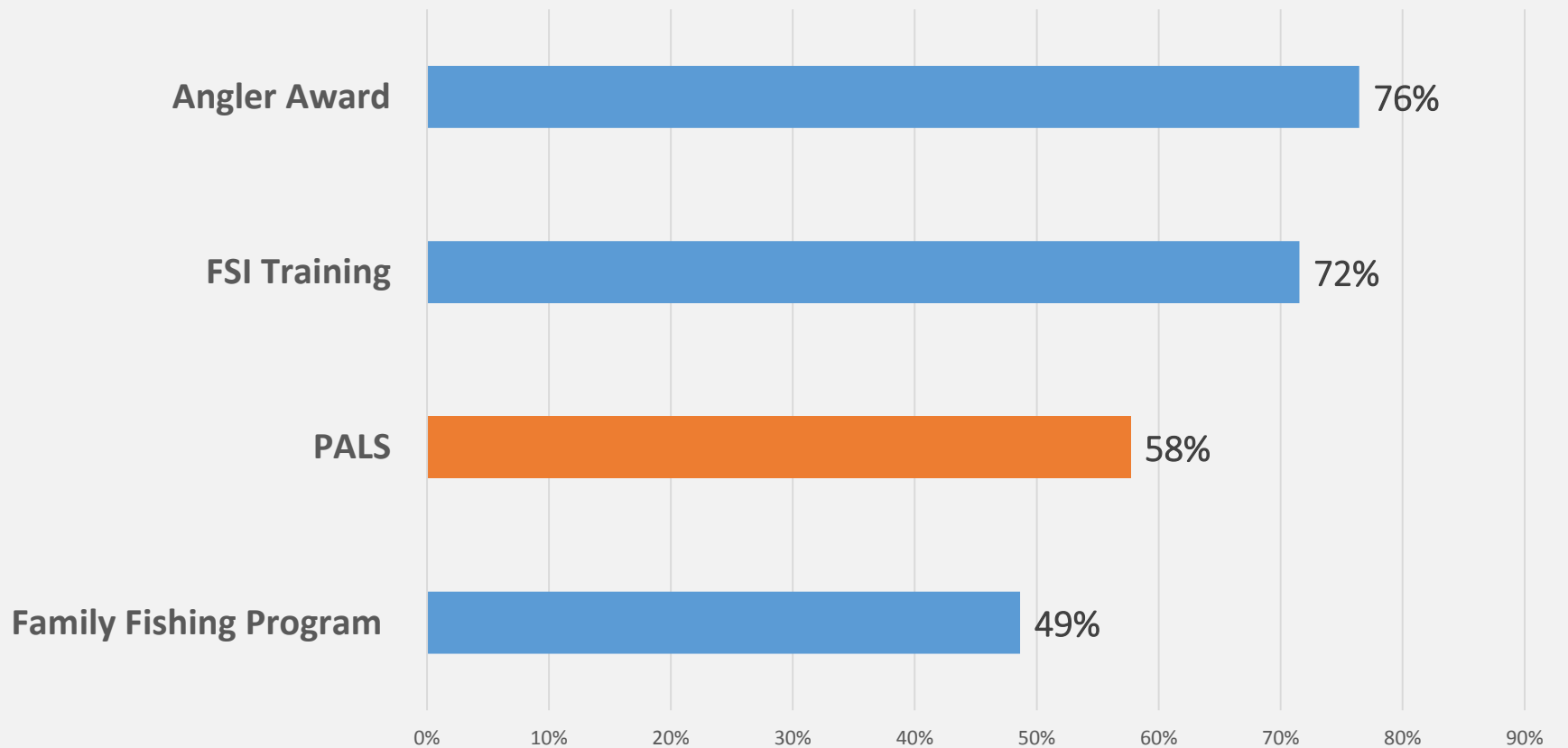


# Potential Buyers



# Purchase 5-yrs Post-Treatment

Mean Annual Purchase



# 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

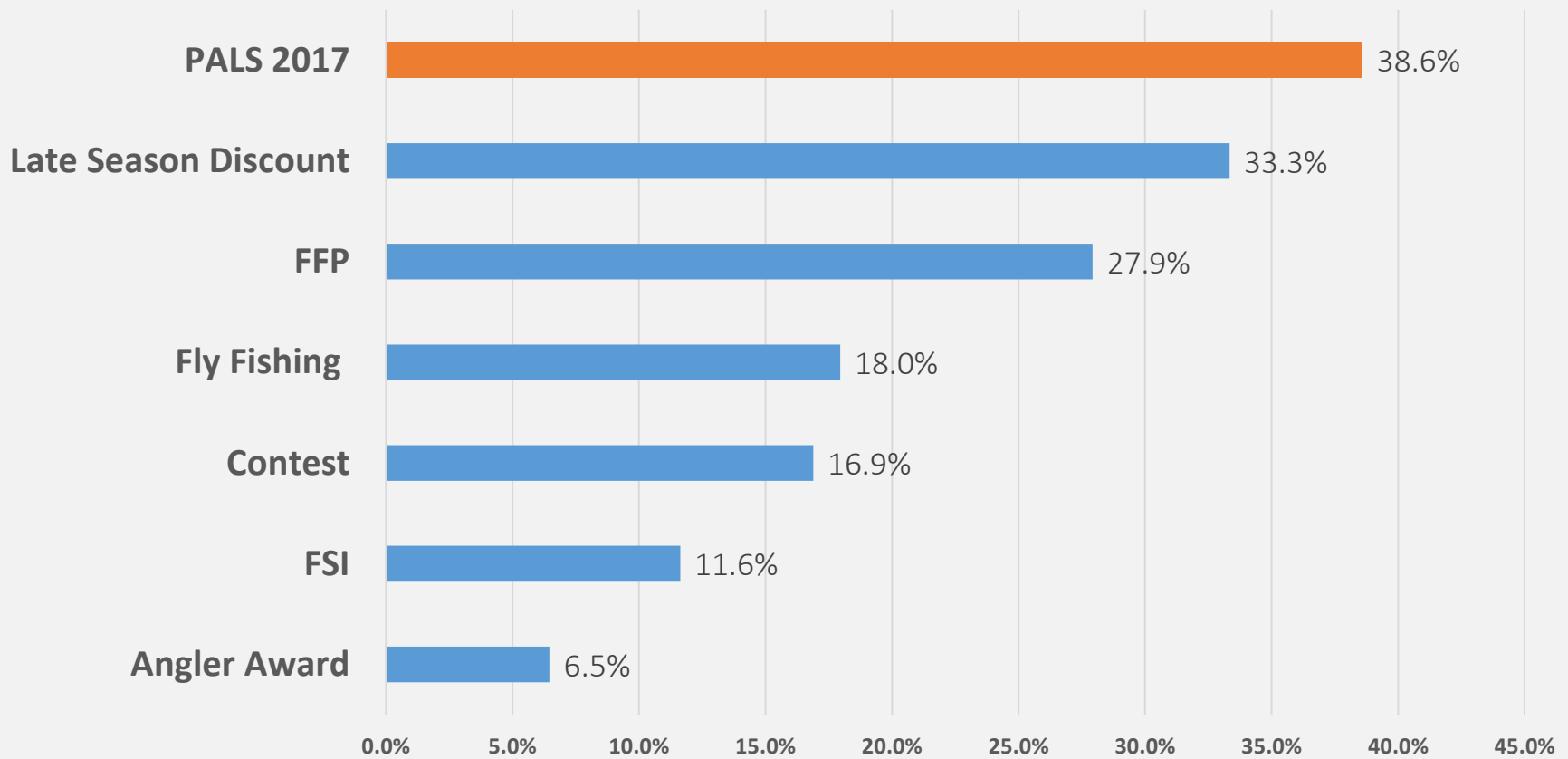
4.9%

0.0% 10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0%



# Churn

Mean Churn, 2008-2017



# 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





# Conclusions cont'd

- 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

