

# Understanding the social dimensions of recreational fishing in South Australia

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**Australian Government**

**Fisheries Research and  
Development Corporation**



**Government  
of South Australia**

Primary Industries  
and Regions SA

# Social survey of South Australian recreational fishers, 2012

## Why do a social survey?

- Identify social objectives of recreational fishing management
  - What social benefits do rec fishers achieve from fishing?
  - How does fishing affect their wellbeing?
  - How does rec fishing contribute to communities?
- Understand how rec fishing is changing
- Understand rec fishers views and preferences about fisheries management
  - What are key management issues?
  - How do fishers want to engage with decision makers?
- Improve communication with rec fishers
  - How do fishers want to access information?

# The 'social objectives' study

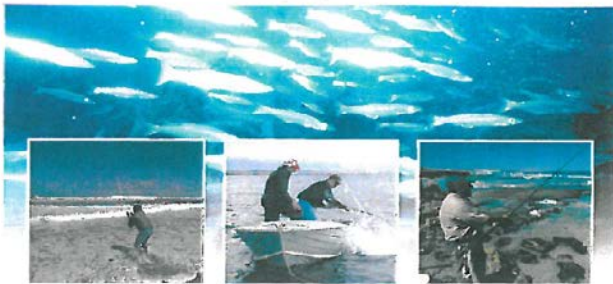
- **Developing and testing social objectives for fisheries management**
  - Funded by FRDC, Fisheries Council of South Australia, PIRSA Fisheries, and the CSIRO Wealth from Oceans Flagship
- Goal:
  - Identify social objectives of fisheries managers
  - Develop indicators for monitoring these
- Timeframe: Finishing late 2012
- For more info on broader project: [jacki.schirmer@canberra.edu.au](mailto:jacki.schirmer@canberra.edu.au)

# Social survey of South Australian recreational fishers, 2012

Asked about:

- What is important to you about rec fishing?
- How satisfied are you with your rec fishing?
- What is your wellbeing?
- What type of fishing do you do? (how often, methods, gear, species targeted, locations)
- How & why has your fishing changed in recent years?
- What do you do with your catch?
- How did you learn your fishing skills?
- Is fishing infrastructure adequate?
- Views about fishing rules, regulation and management
- How do you access information on recreational fishing?
- How do you think other people view rec fishers?
- How fairly are recreational fishers treated?
- Engagement with fisheries managers and with fishing representative organisations
- What do you spend on fishing (& where)
- Demographic characteristics (age, gender, income etc)
- How did you hear about this survey?





## Survey of the Social Aspects of Recreational Fishing in South Australia, 2012

WIN a Charter Boat Trip for three  
or a \$500 Fishing Voucher\*

### Complete the survey to go into the draw

PIRSA Fisheries and Aquaculture and the Fisheries Research and Development Corporation are conducting a survey of recreational fishers in South Australia. The survey will build a better understanding of the things that matter to recreational fishers, and will be used to inform recreational fishing management.

If you fish, your views are needed;  
we will use the results of the survey  
to help improve your fishing experience

To enter the prize draw, complete the survey form online at:  
[www.plr.sa.gov.au/recfishingsurvey](http://www.plr.sa.gov.au/recfishingsurvey)



**Everyone who completes the survey online or via hard copy, will go into a random draw to win one of the following prizes:**

- **First prize** – Choose from a one day charter boat fishing trip with two friends (maximum value \$1000) or a \$500 voucher for fishing gear redeemable at your local fishing outlet.
- **Runner up prizes** – Nine people will win \$100 vouchers for fishing gear, redeemable at their local fishing outlet.

To be eligible for the draw, completed surveys must be received by 29 February 2012. Winners will be drawn on 12 March 2012 and notified by 16 March 2012.

**For assistance with the survey or to obtain a hard copy call 1800 981 499 or email the Principal Investigator of the project, Dr Lianos Triantafillos [lianos.triantafillos@sa.gov.au](mailto:lianos.triantafillos@sa.gov.au)**

\*Conditions: All completed surveys will go into the prize draw. Entries open 23 January 2012 and close 29 February 2012. Prize draw takes place 12 March 2012. Winner to be notified by 16 March 2012. Prize details: First prize is a charter boat fishing trip for the winner and two friends up to a maximum value of \$1000 OR a \$500 voucher for fishing gear at the fishing outlet of the winner's choice. Nine runners up will receive a \$100 voucher for fishing gear from the fishing outlet of their choice. Prizes cannot be exchanged or redeemed for cash.

## 1. The respondents

Demographic characteristics (age, gender...)

Who completed the survey & how

How did people hear about the survey?

## 2. Rec fishing trends

How do you fish? (how often, where, species, methods, gear)

What do you do with your catch?

How has your fishing changed in recent years?

How did you learn your fishing skills?

## 3. Social benefits (& costs) of fishing

Importance of fishing

Satisfaction with fishing

How do other people view fishers?

How does fishing affect your wellbeing?

Recruiting more fishers...

## 4. Economic contributions

What do you spend on fishing (& where)

## 5. Fisheries governance

Fishing infrastructure

Fishery management

Consultation & engagement

How fairly are rec fishers treated?

Accessing information about fishing

# Results

# Demographics of respondents

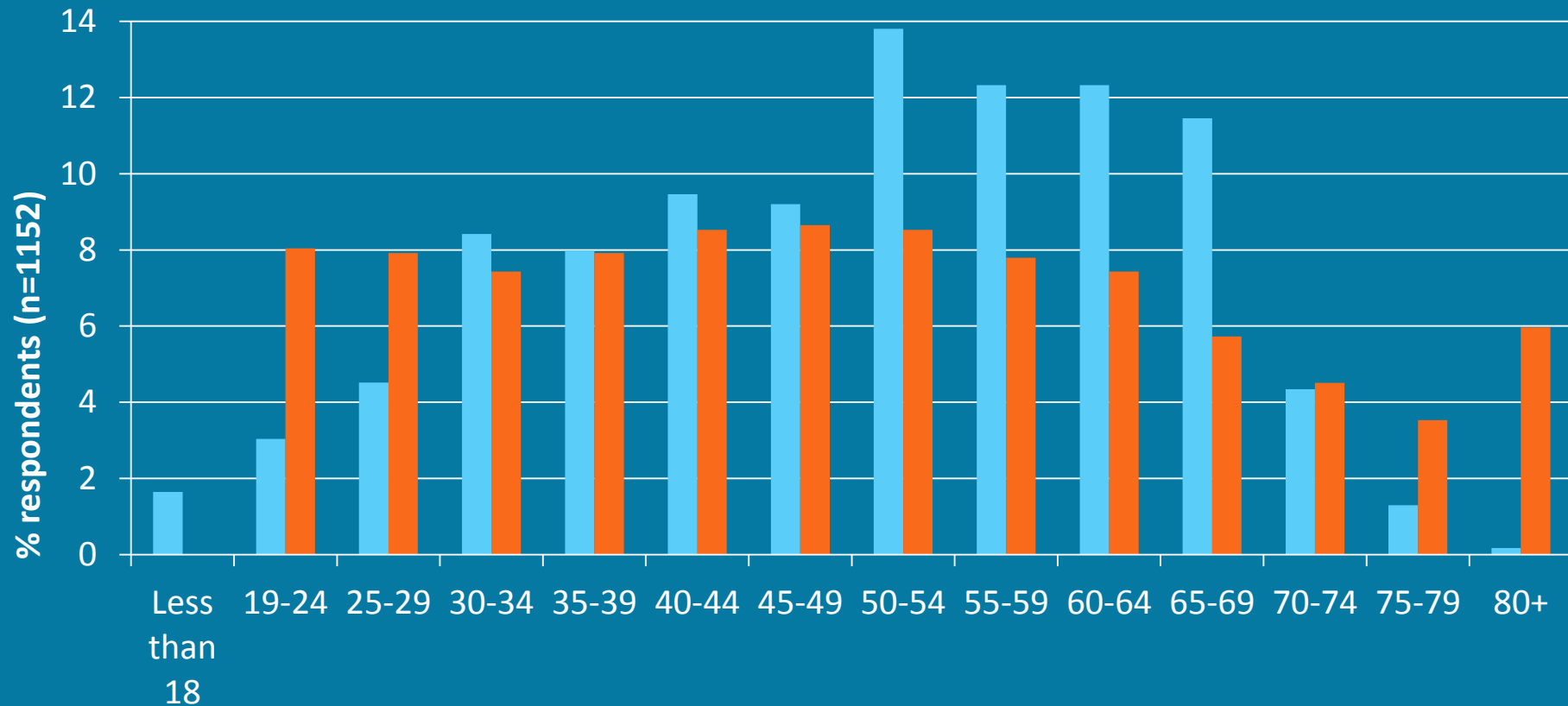
- Identified gender, age, education, income, marital status and occupation
- Use this information in analysis (eg do women and men fish for different reasons?)
- Some examples given throughout presentation



# Age of respondents

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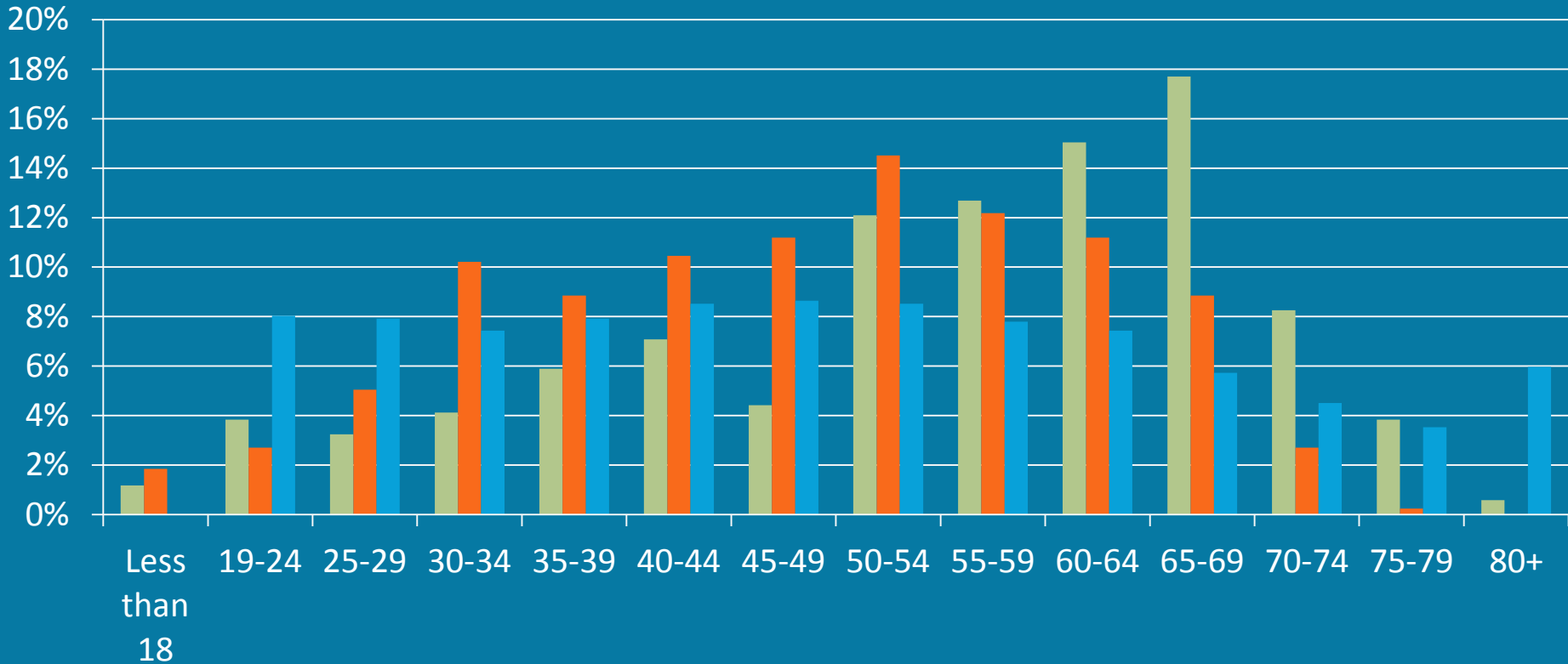
■ % of sample    ■ SA adjusted (% of population aged 19+)



# Age by type of survey completed

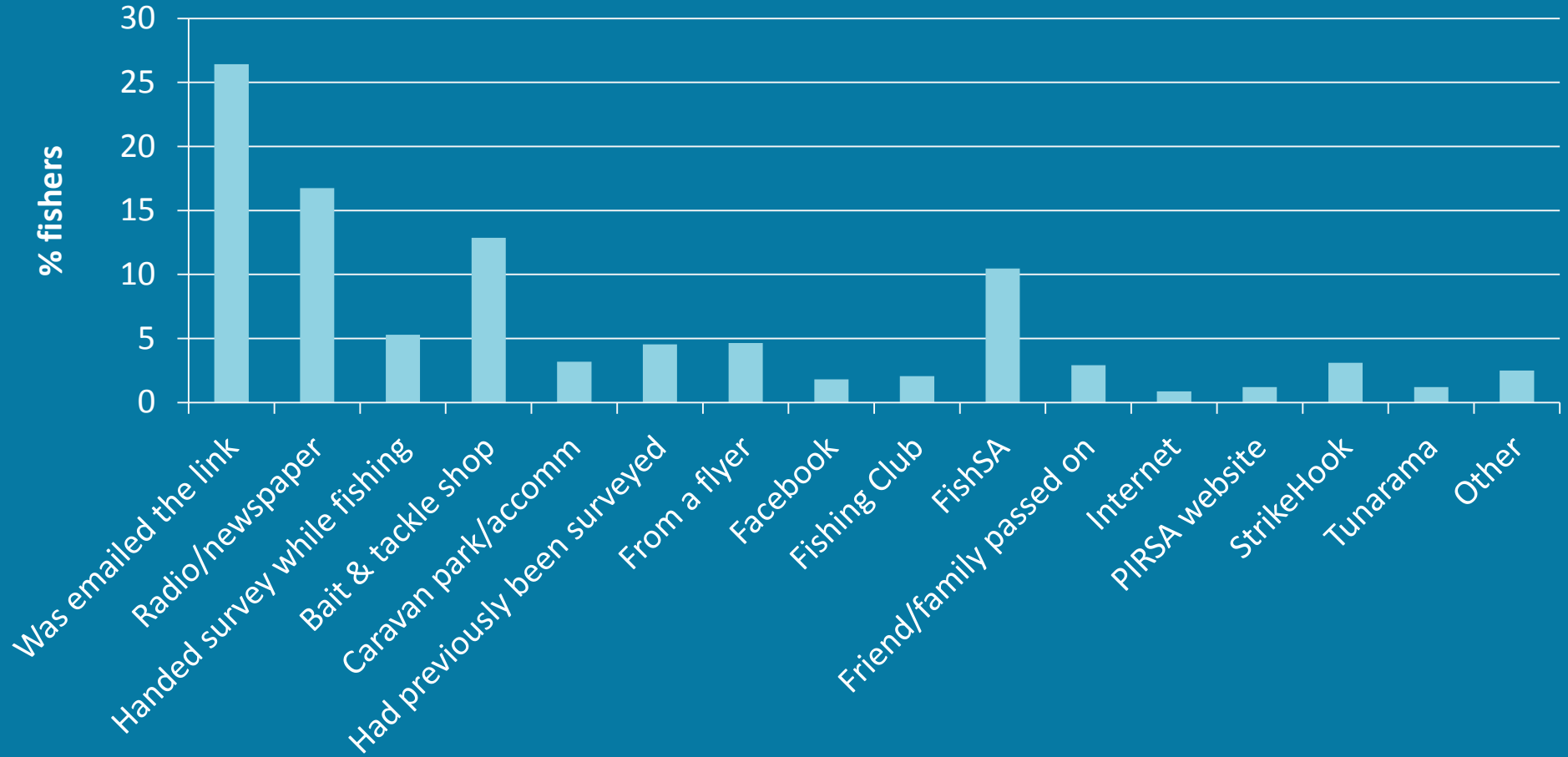
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■ Hard copy   ■ Online   ■ SA adjusted (% of population aged 19+)



# How did you hear about the survey?

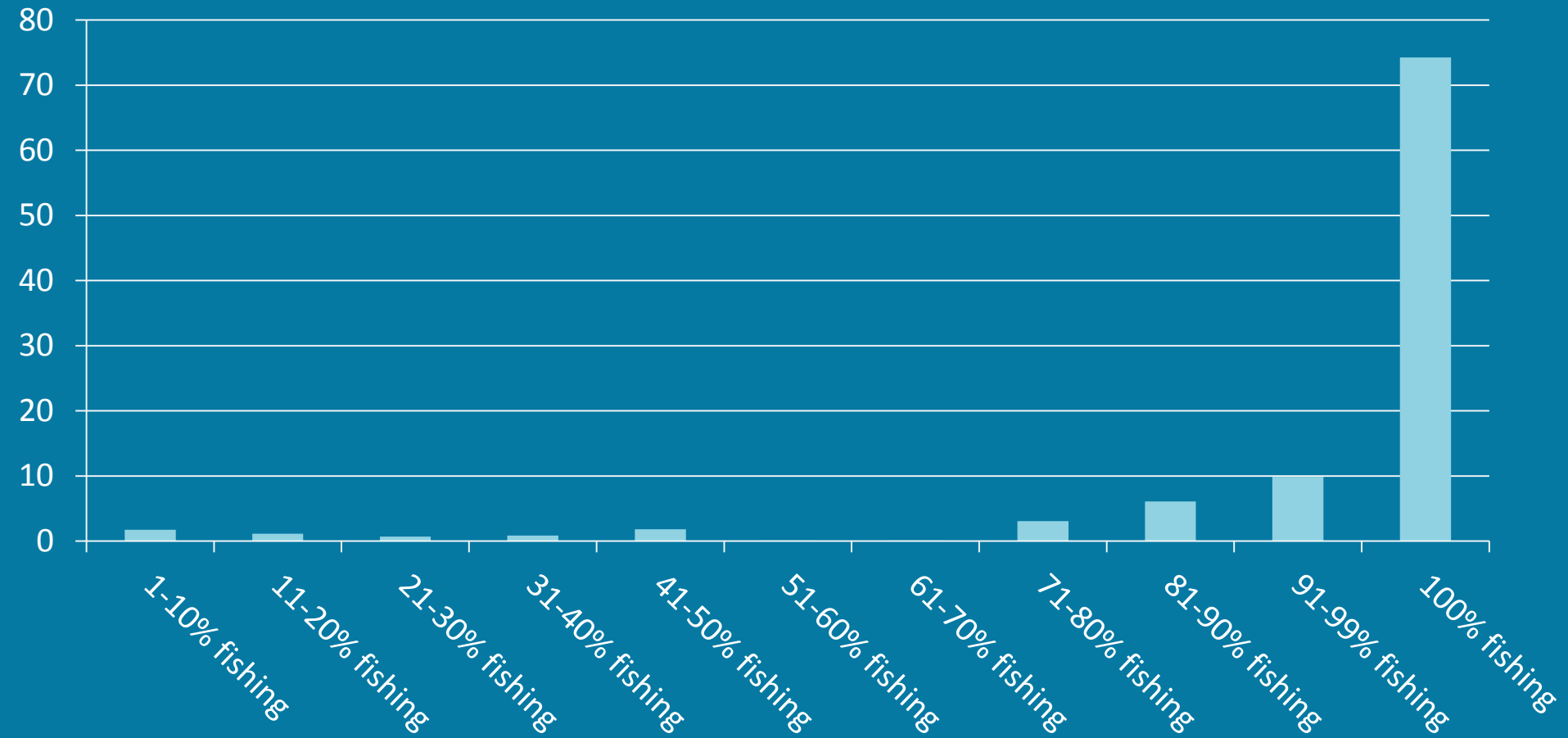
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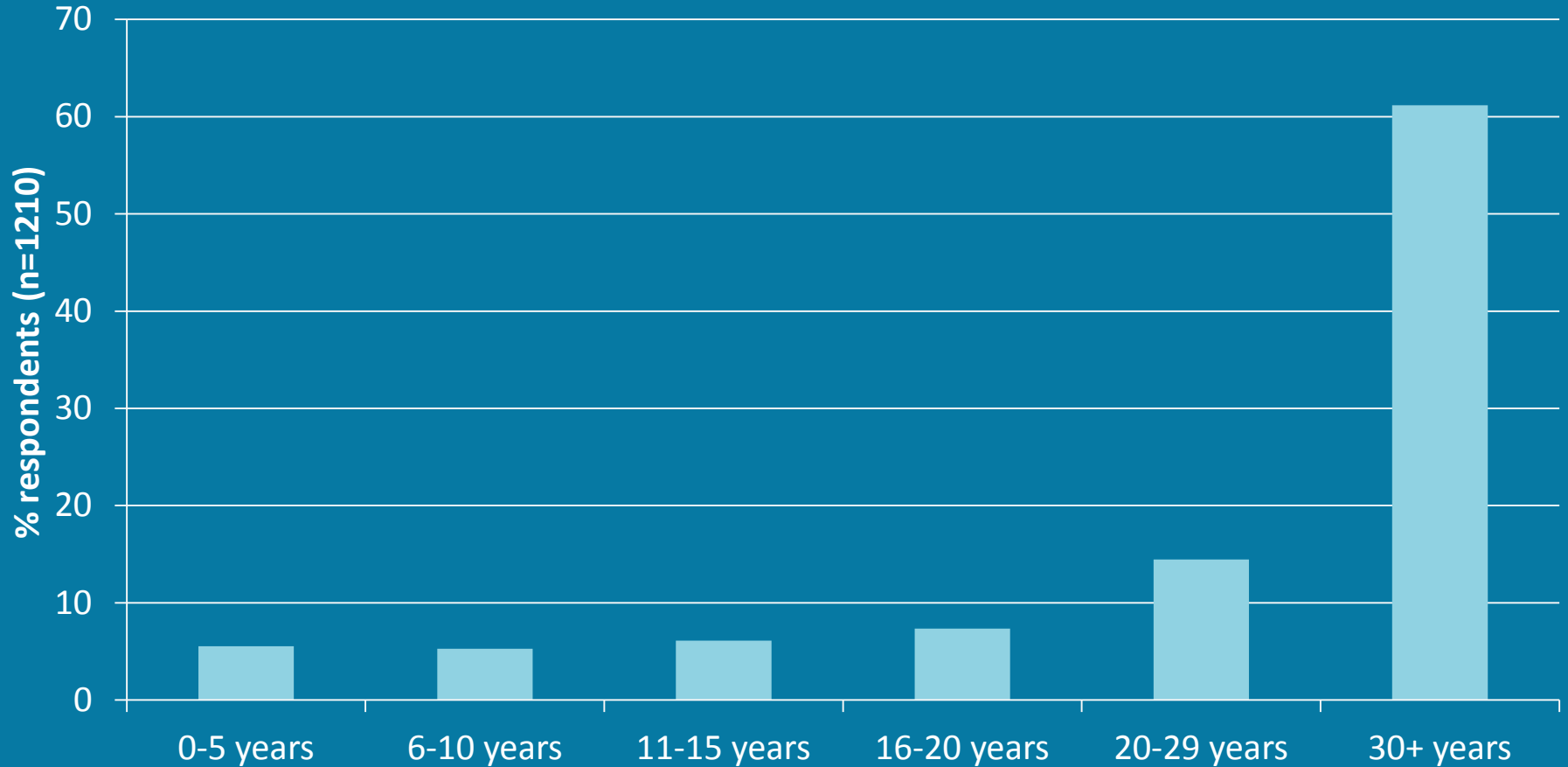
# Recreational fishing trends/ characteristics of fishers

- Note: Some of this information is meaningful only when analysed by type of fisher. Results have not been 'weighted' to make them representative across all recreational fishers

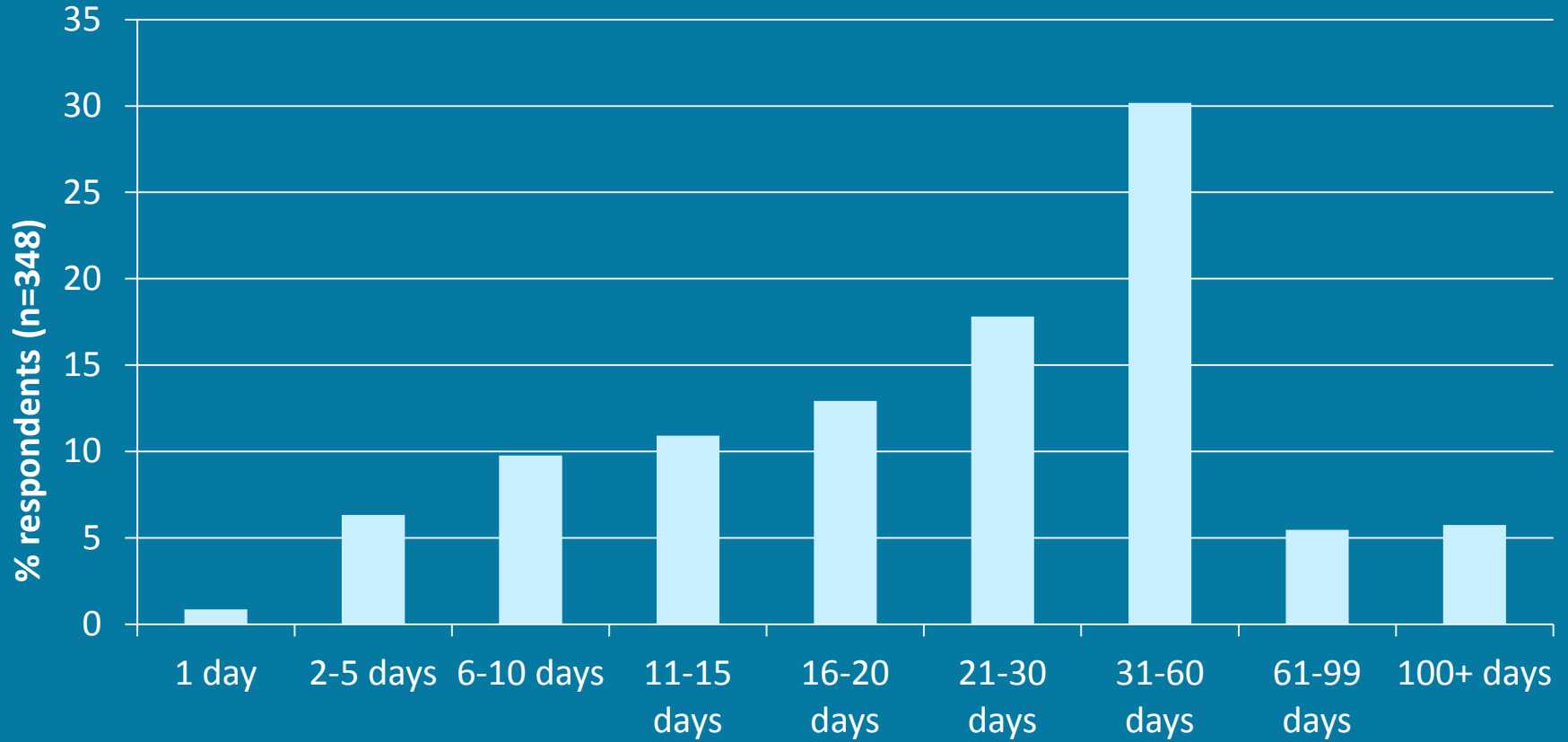
# Proportion of fishing undertaken in SA



# How long have you been rec fishing in SA?

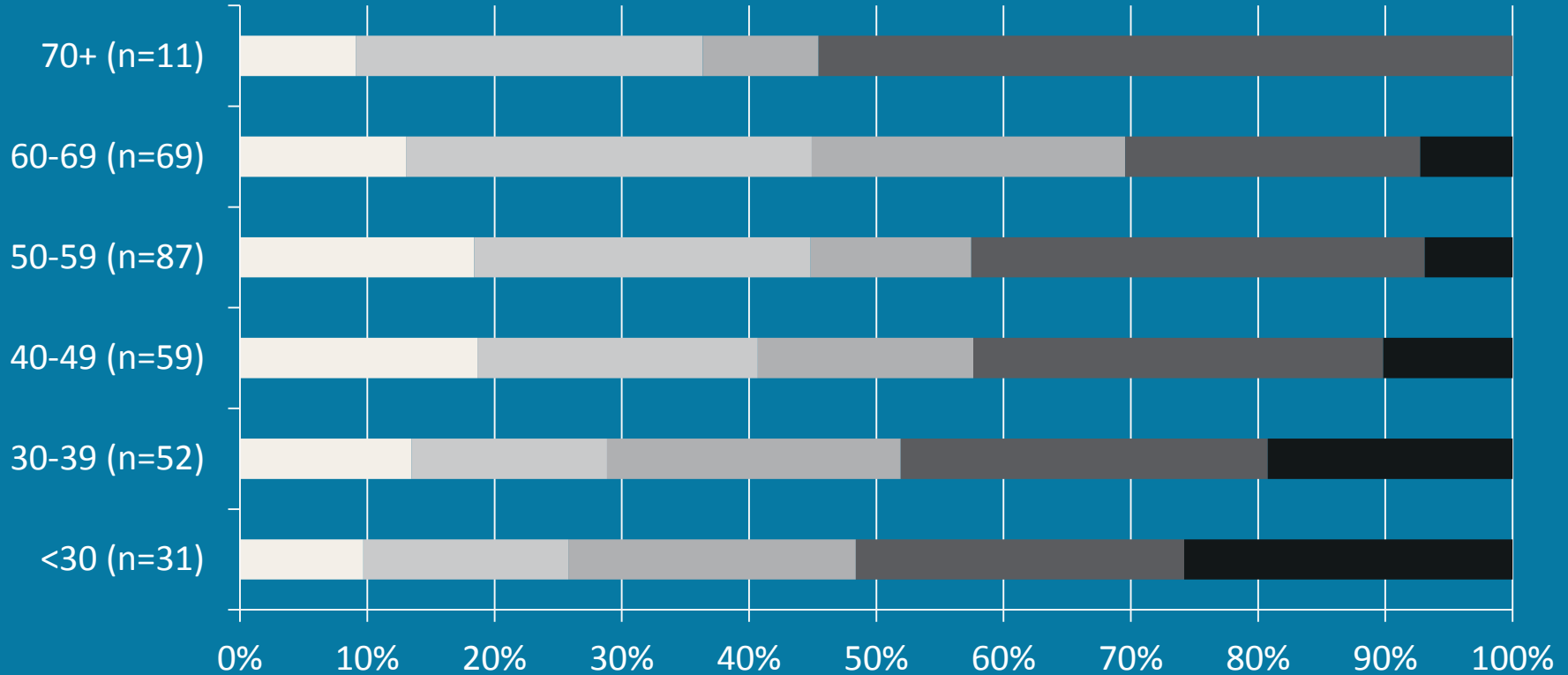


# How many days did you fish in last 12 months?



# Days fished by age group

■ 10 or less days ■ 11-20 days ■ 21-30 days ■ 31-60 days ■ More than 60 days





# People who fish more are significantly likely to....

1) Rate rec fishing as highly important to their life ( $p < 0.000$ )

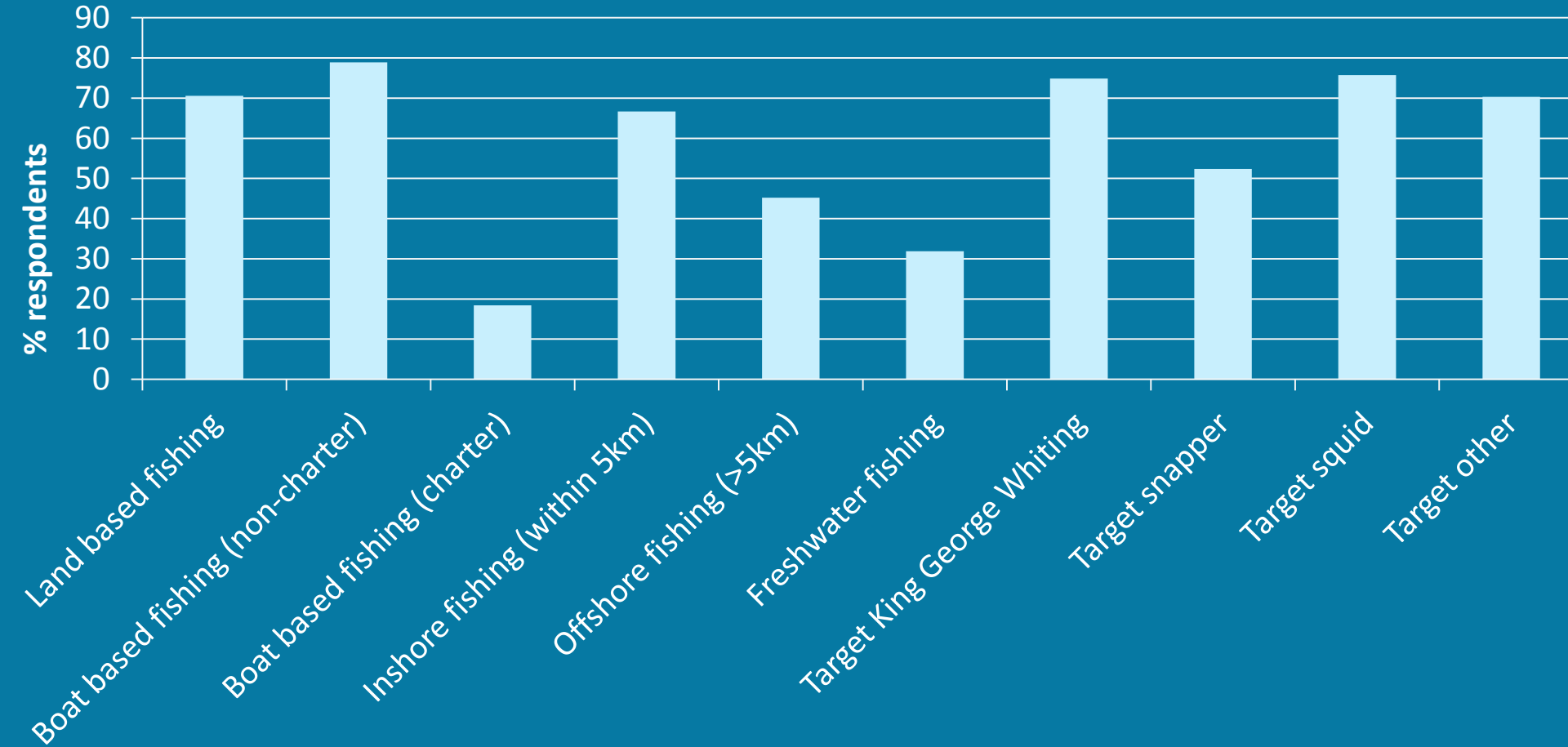
2) Report higher satisfaction with rec fishing ( $p = 0.021$ )

3) Be younger ( $p = 0.013$ )

4) Spend more on recreational fishing ( $p < 0.000$ )

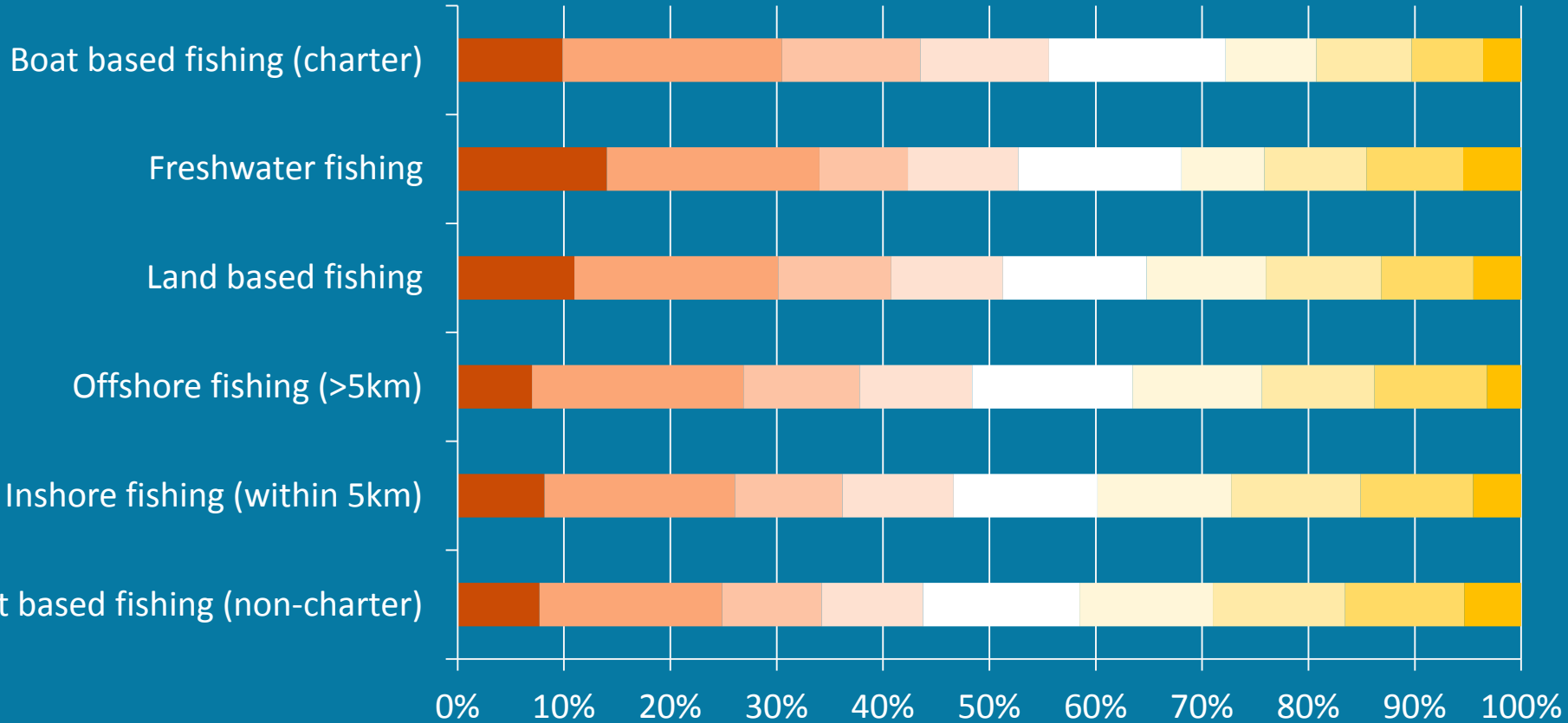
5) Be a member of a rec fishing organisation ( $p = 0.004$ )

# Types of fishing – locations & species targeted



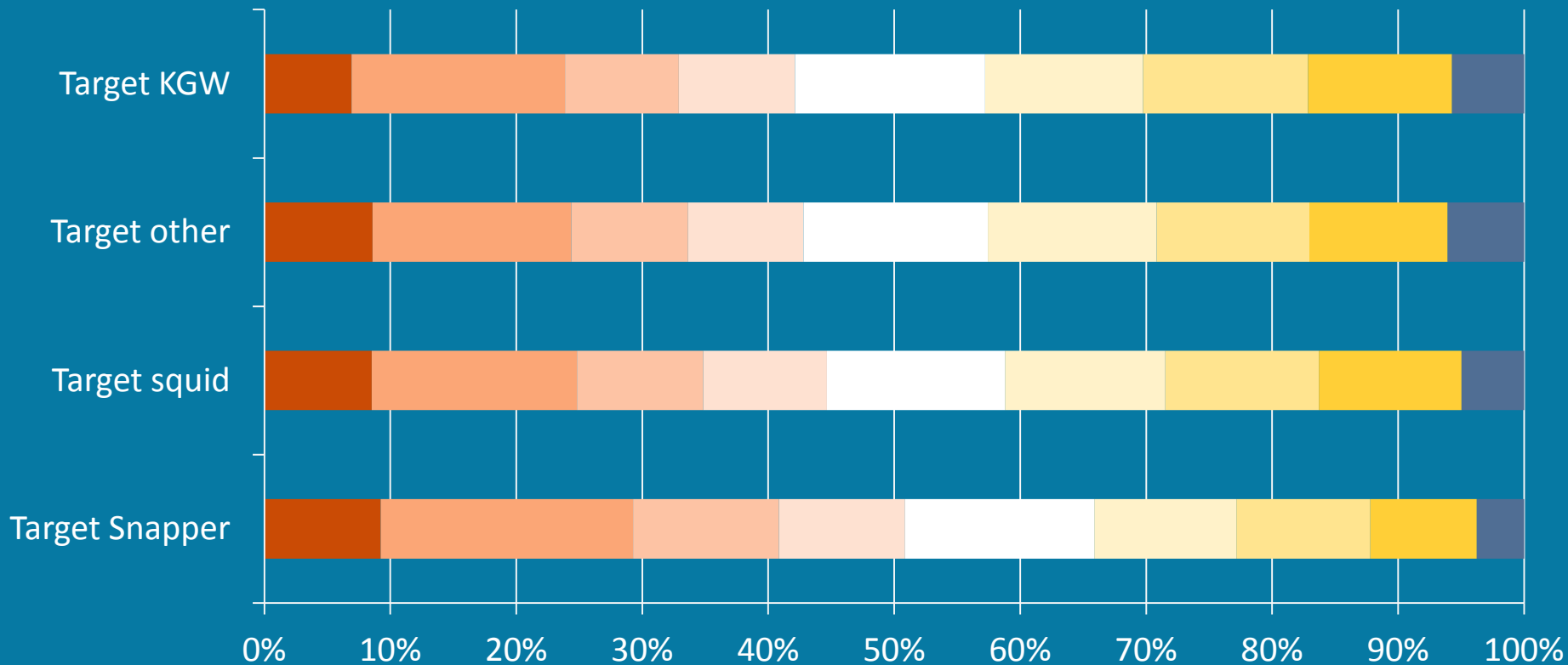
# Fishing platform by age group

**<30** **30-39** **40-44** **45-49** **50-54** **55-59** **60-64** **65-69** **70+**



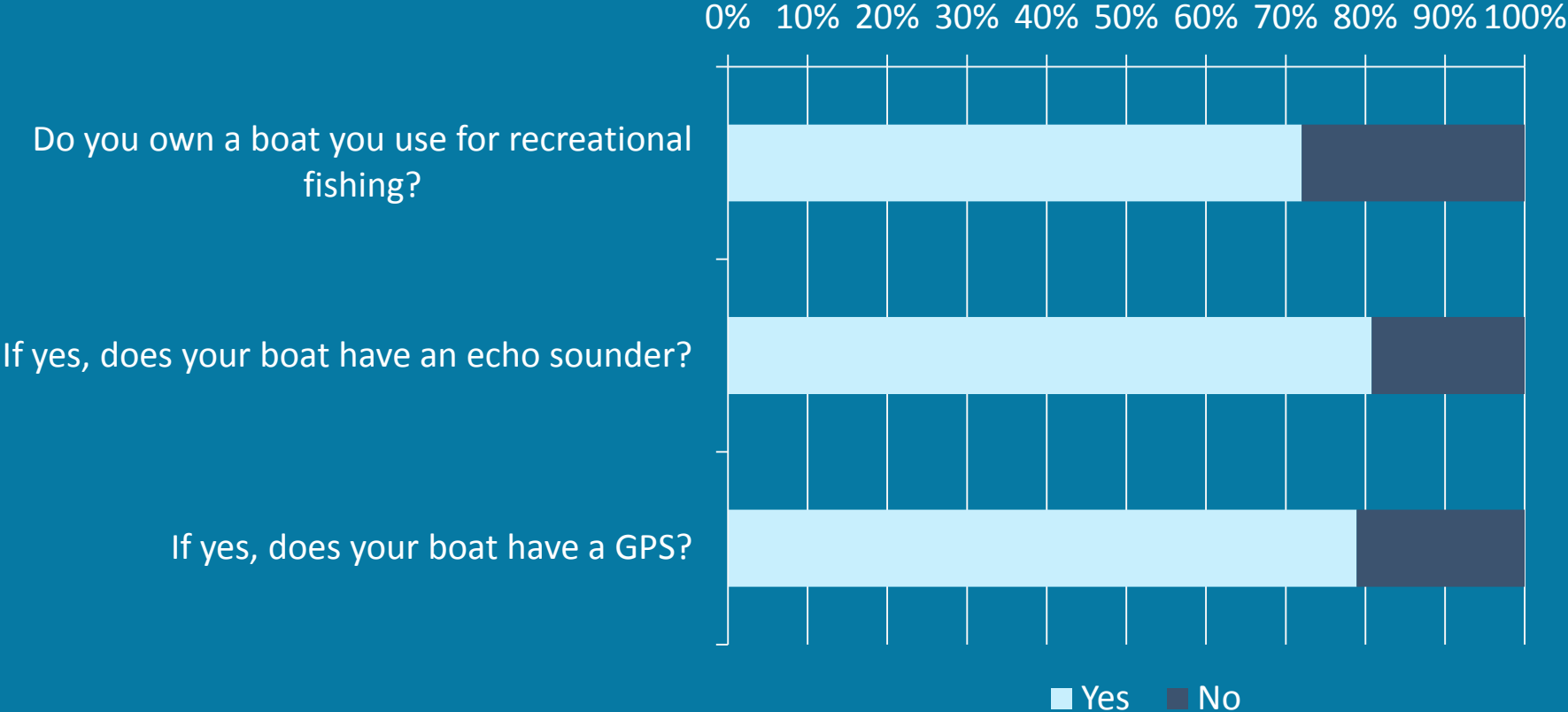
# Target species by age group

<30 30-39 40-44 45-49 50-54 55-59 60-64 65-69 70+



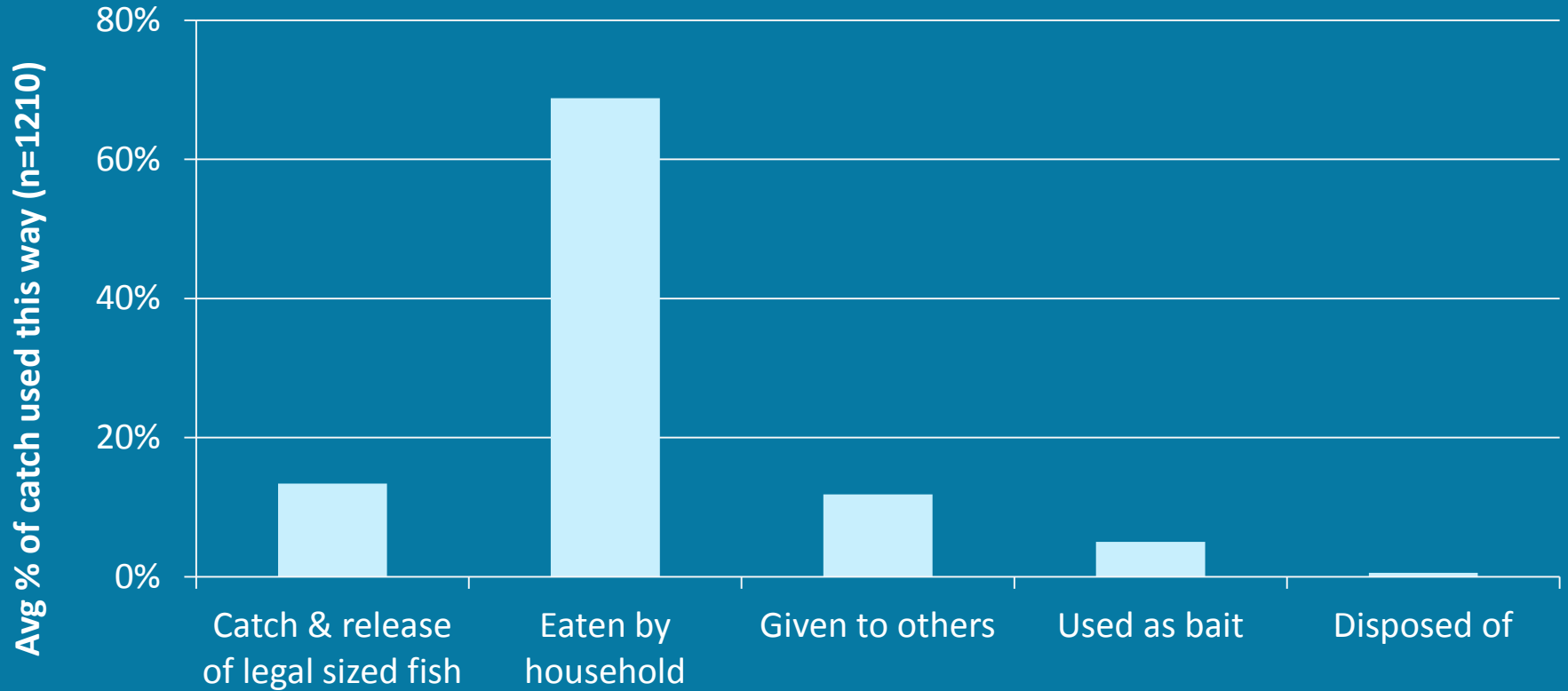
# Fishing – boat equipment

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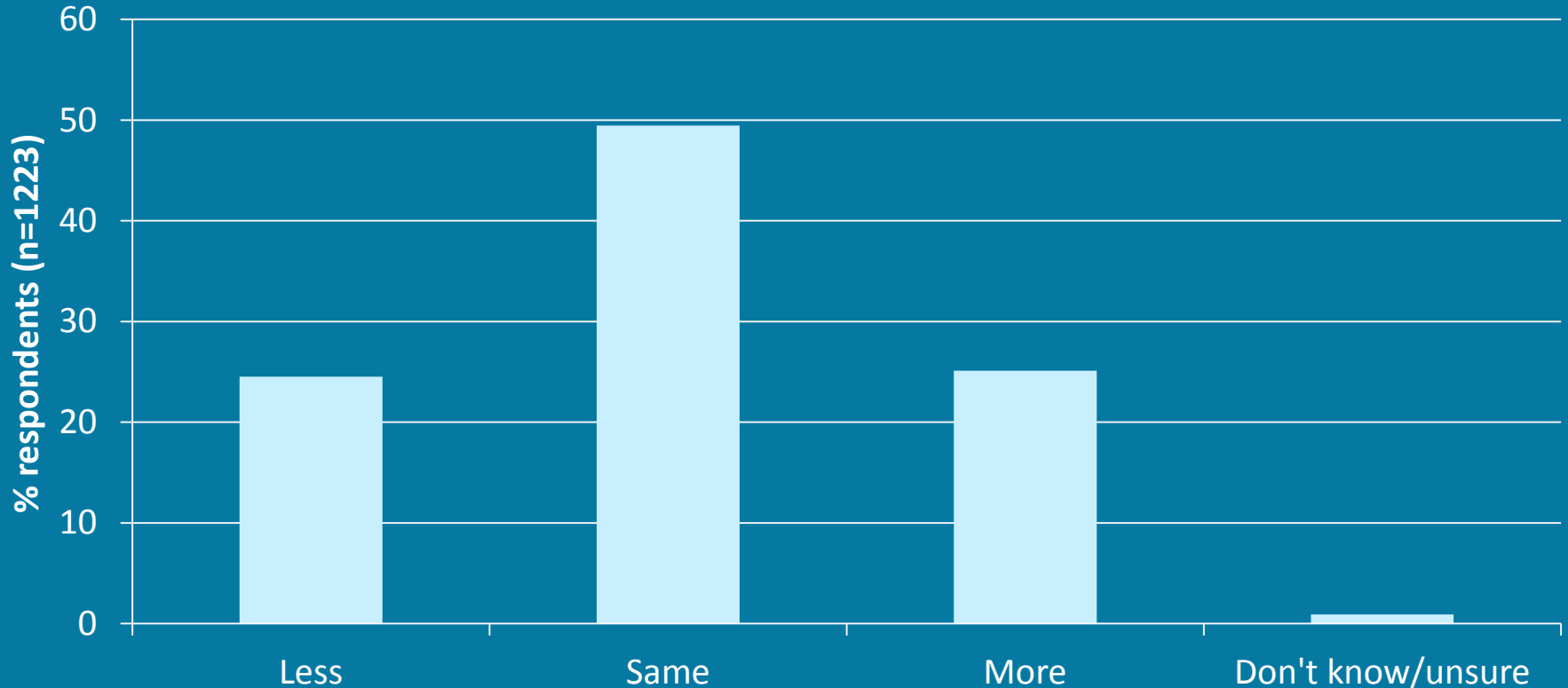


# What is done with catch?

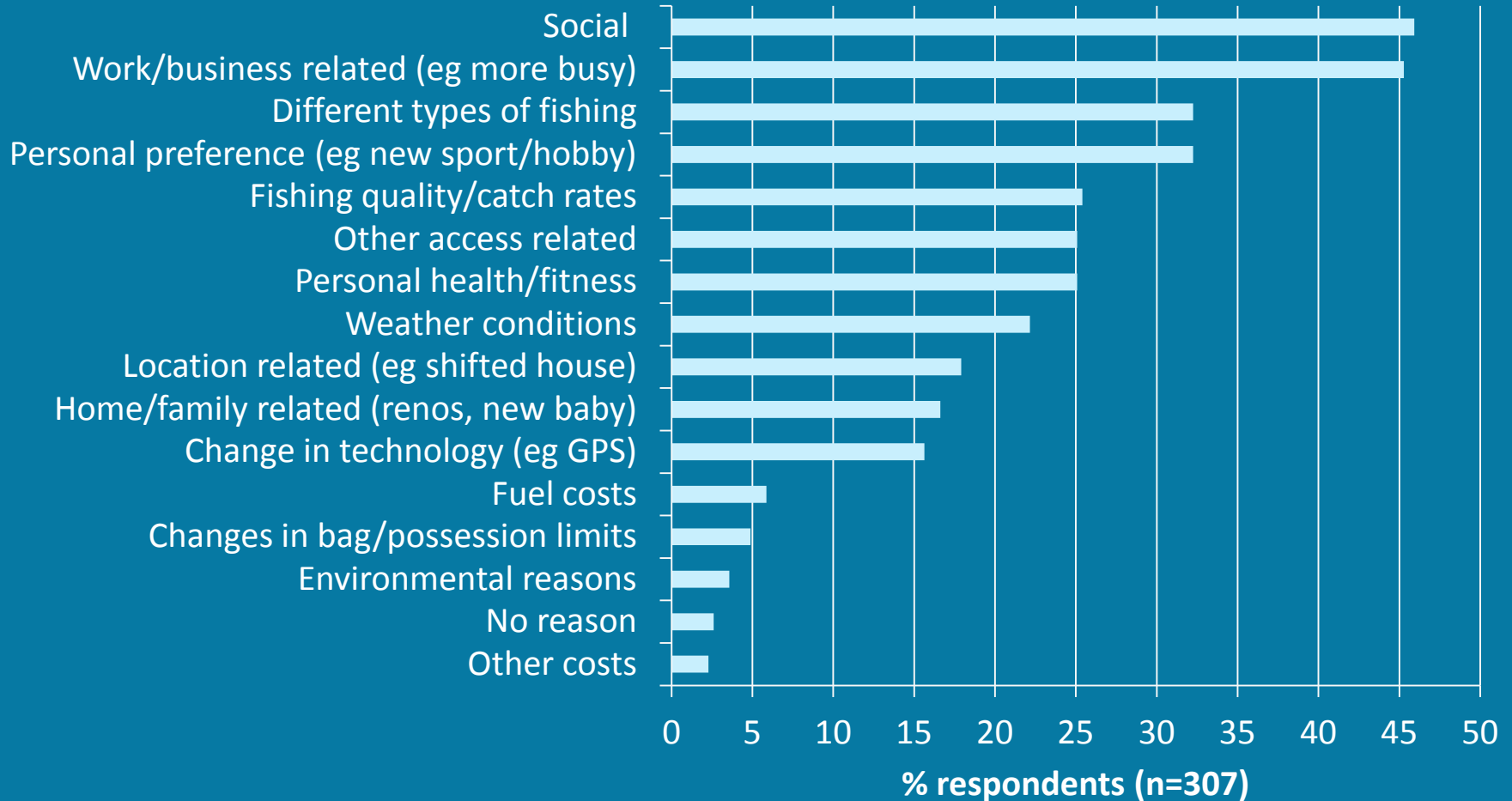
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# In the last 12 months, did you fish more/less/same than previous 12 months?



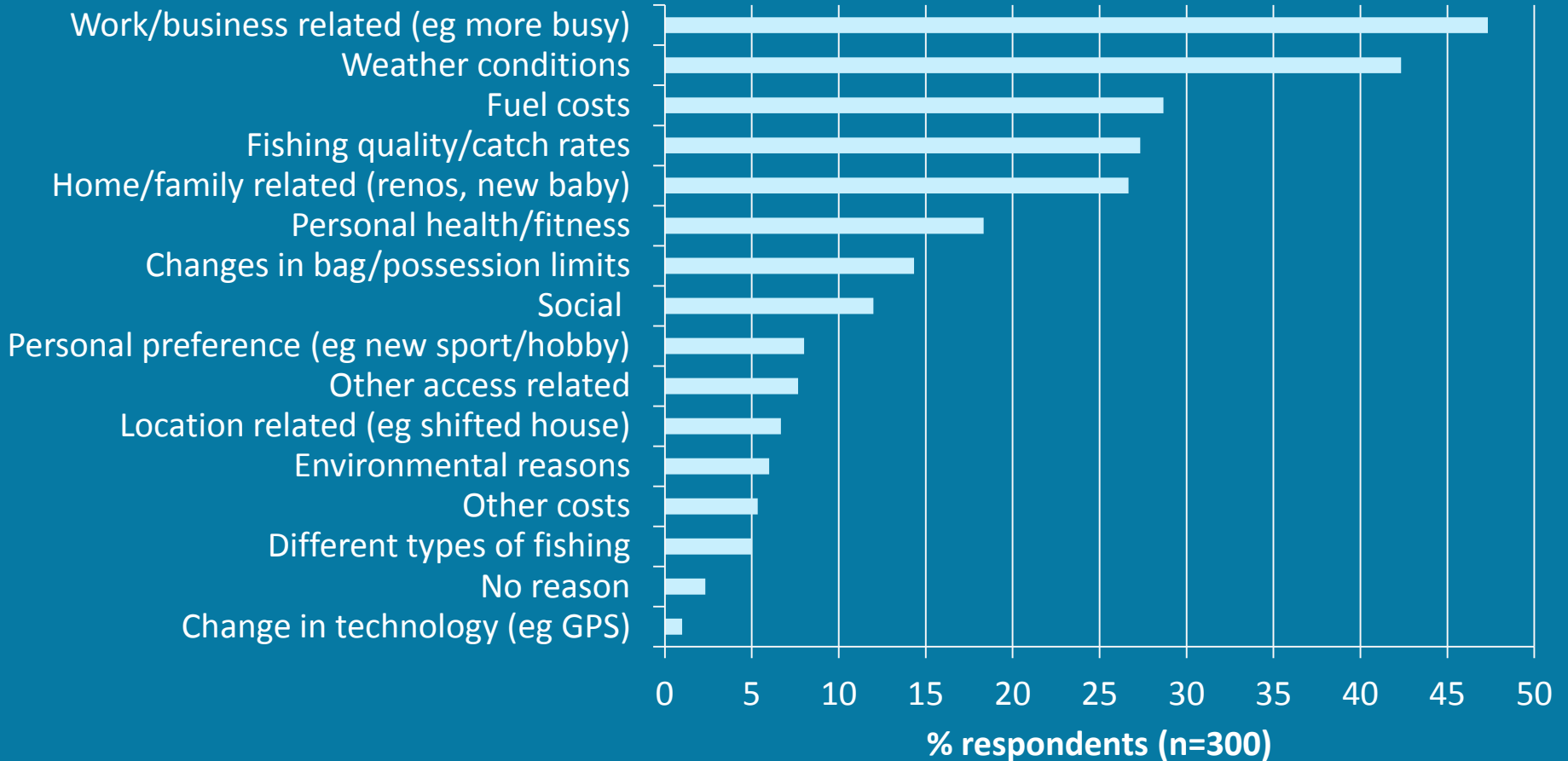
# Why did you fish more?





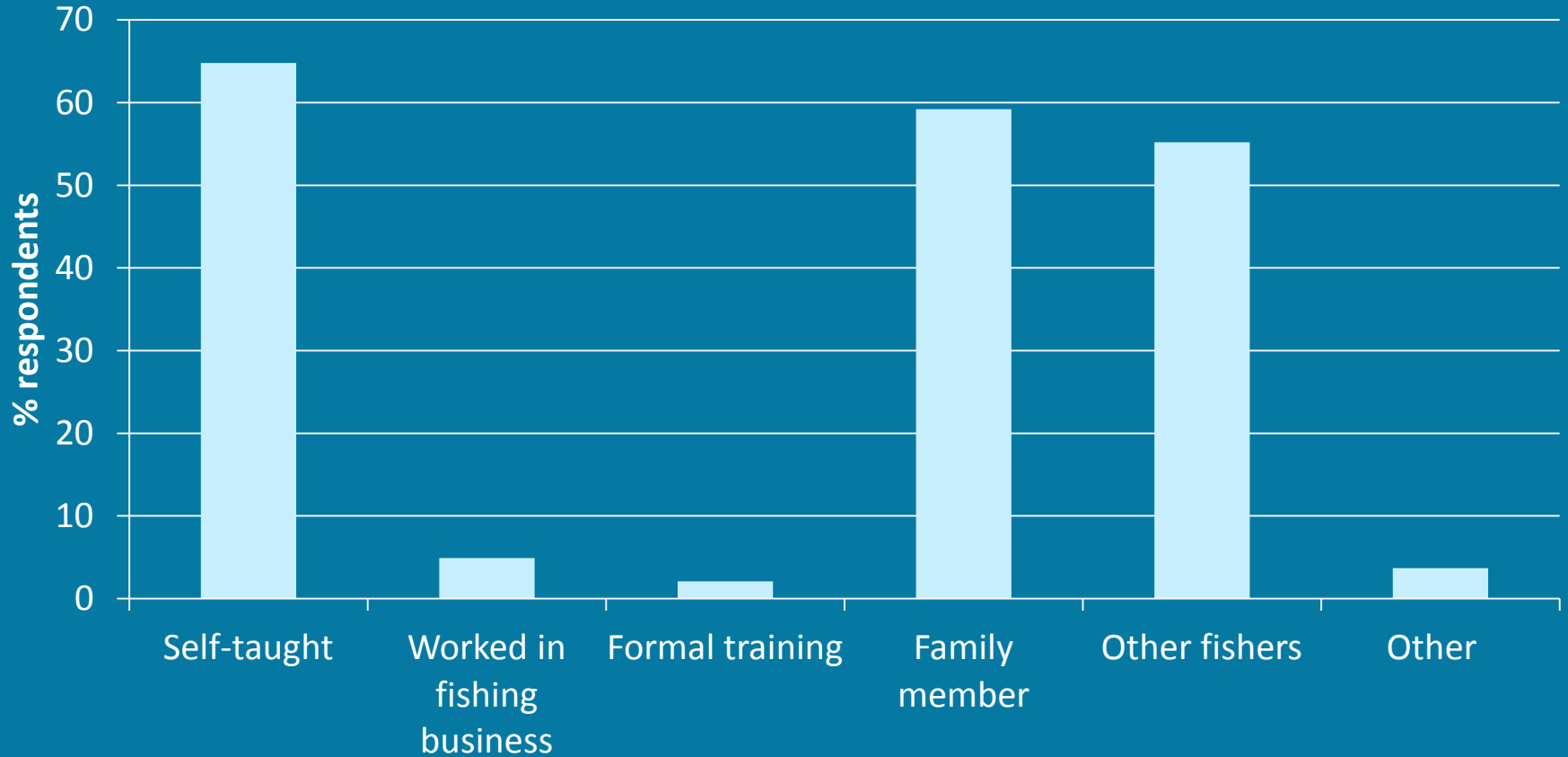
# Why did you fish less?

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# How did you learn your fishing skills?

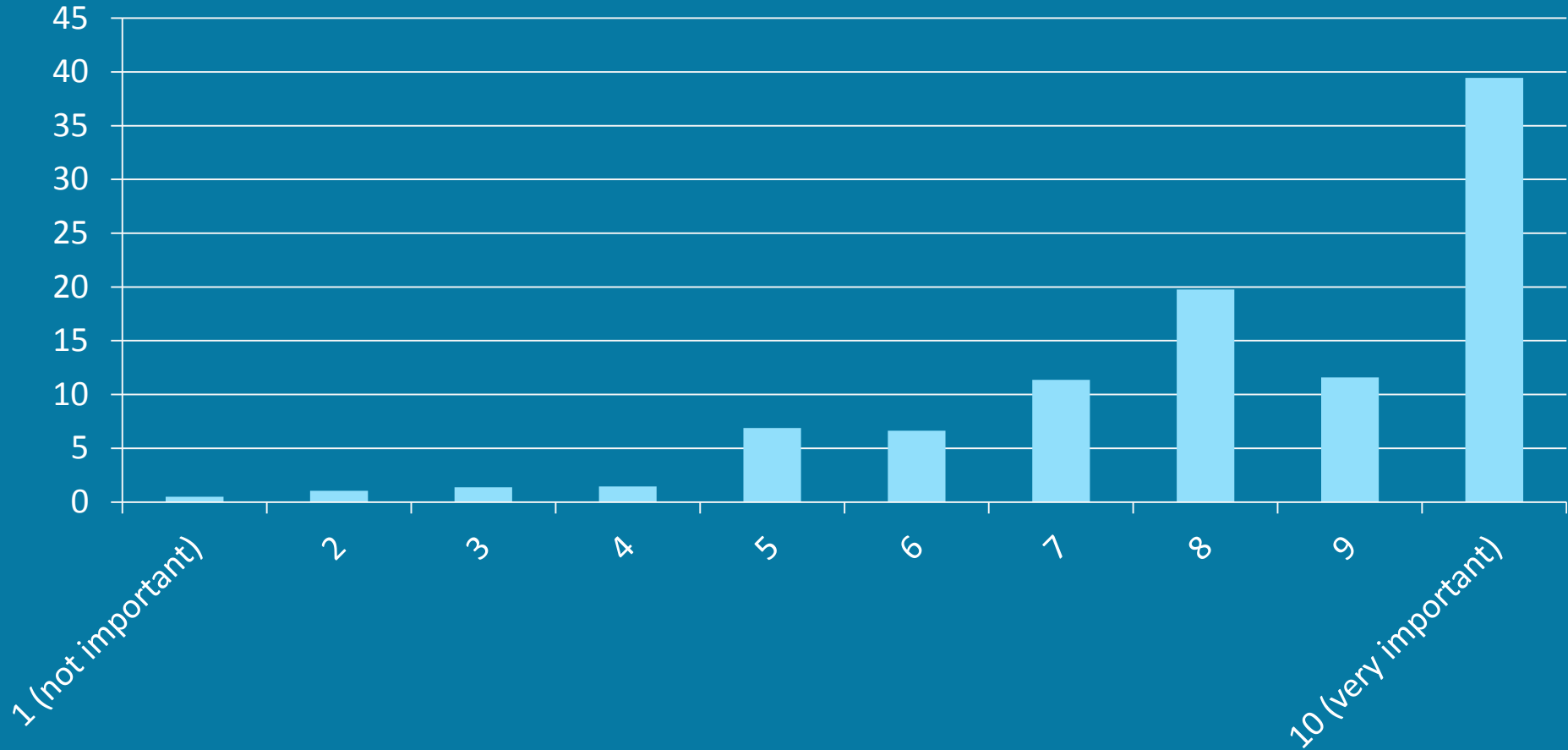
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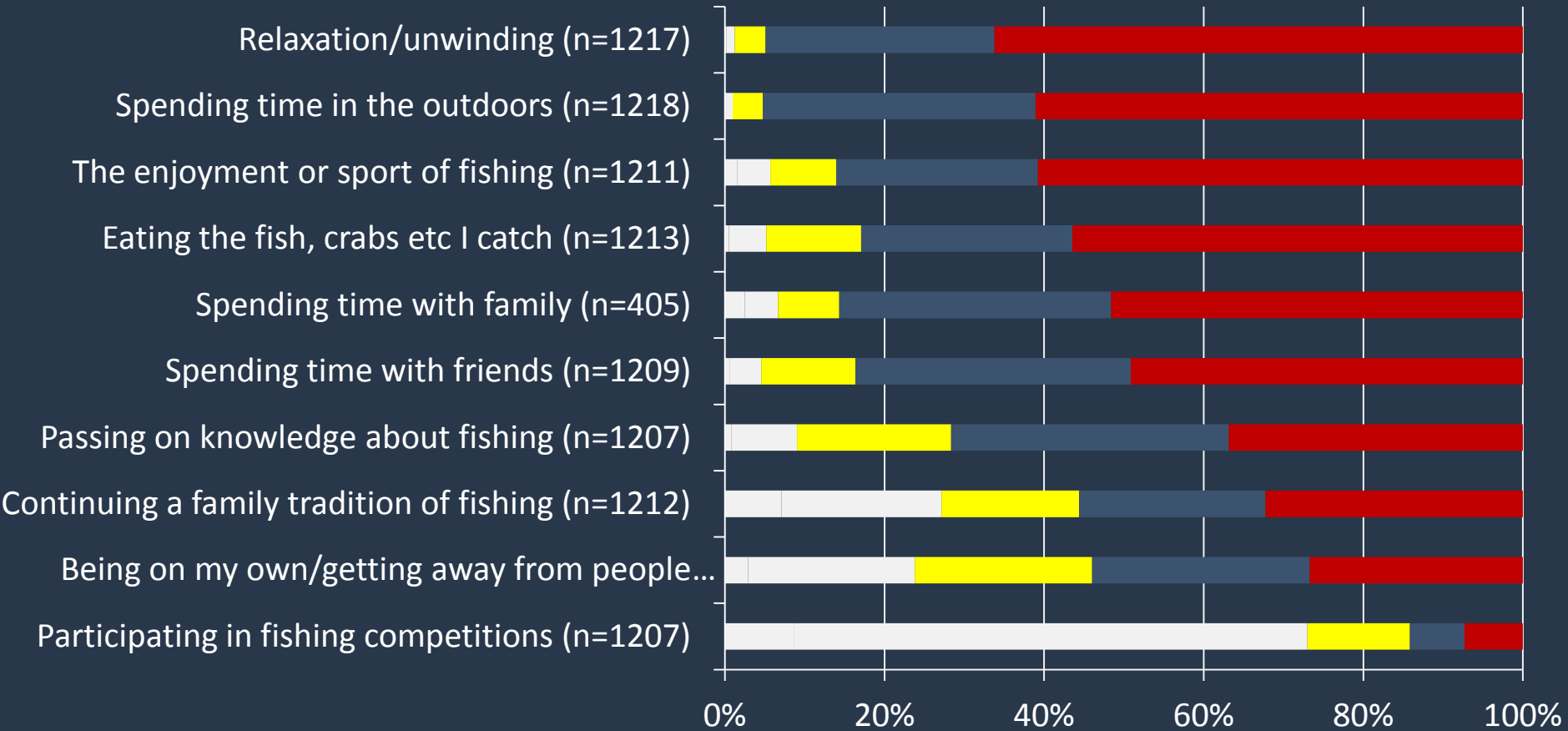
# Social benefits (& costs) of rec fishing

- Importance of fishing
- Satisfaction with fishing
- How other people view fishers
- How fishing affects wellbeing

# How important is recreational fishing to your life?



N/A
  Not important
  A little important
  Important
  Very important

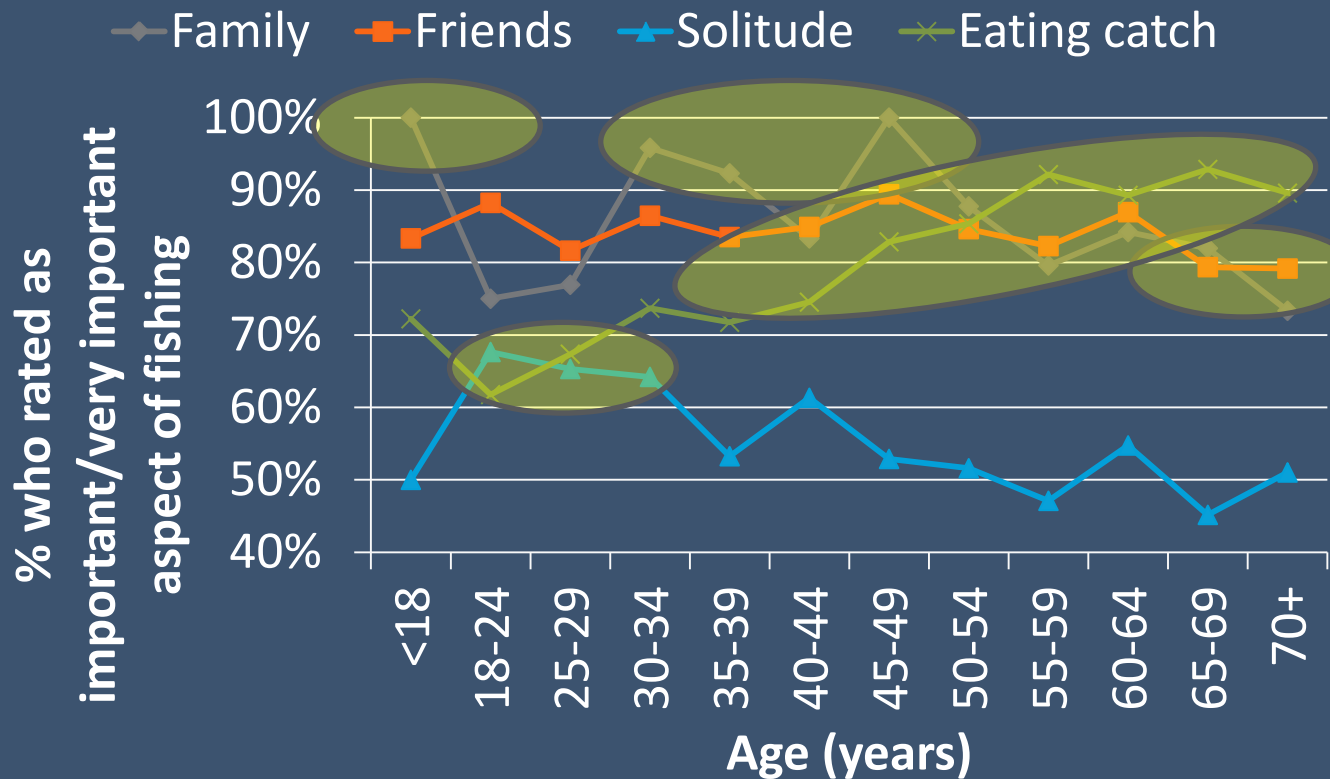


**How important are the following aspects of your fishing activities?**

# Those who rate rec fishing are very important are significantly more likely to:

- 1) Fish more days per year ( $p < 0.000$ )
- 2) Have higher rec fishing satisfaction ( $p < 0.000$ )
- 3) Have lower household income\* ( $p = 0.044$ )
- 4) Have lower education\* ( $p = 0.032$ )
- 5) Spend more on fishing ( $p < 0.000$ )
- 6) Be a member of a rec fishing organisation ( $p < 0.000$ )

# How importance of different aspects of fishing varies by age

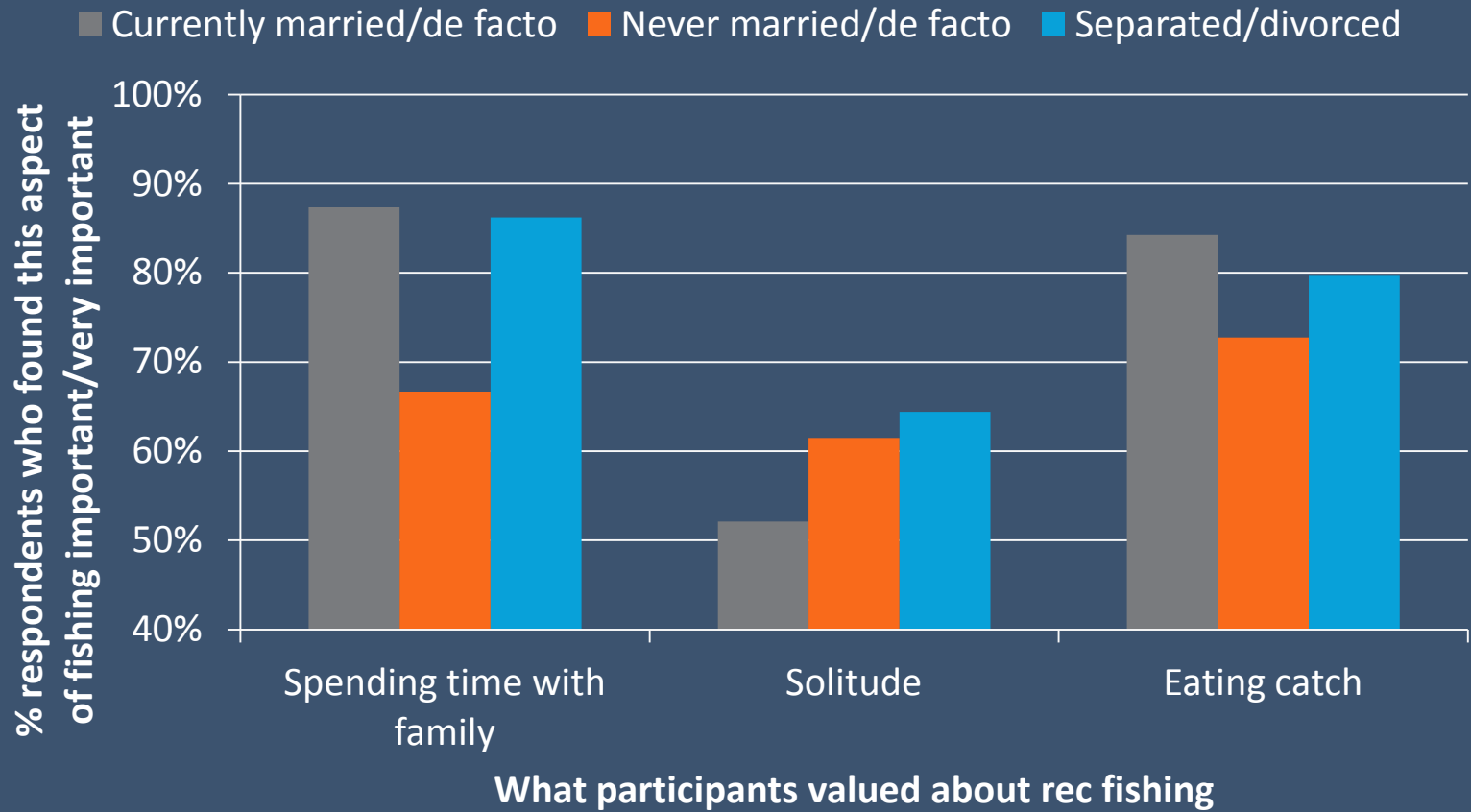


Solitude: valued most by younger fishers (18-40)

Family: valued most by <18 and 30-50; least by 18-29

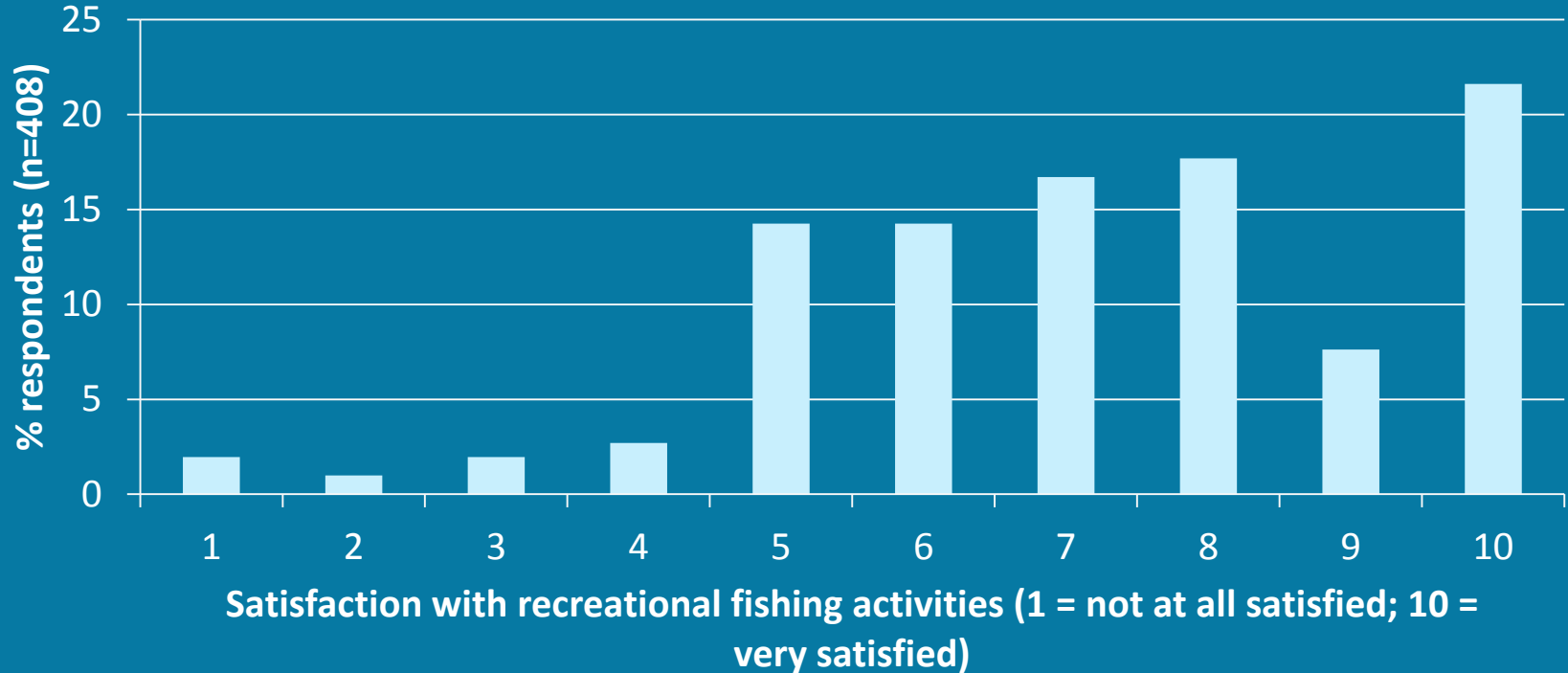
Friends: valued least by >65

Eating catch: Valued more the older the fisher





# How satisfied are you with your recreational fishing activities (scale of 1-10)



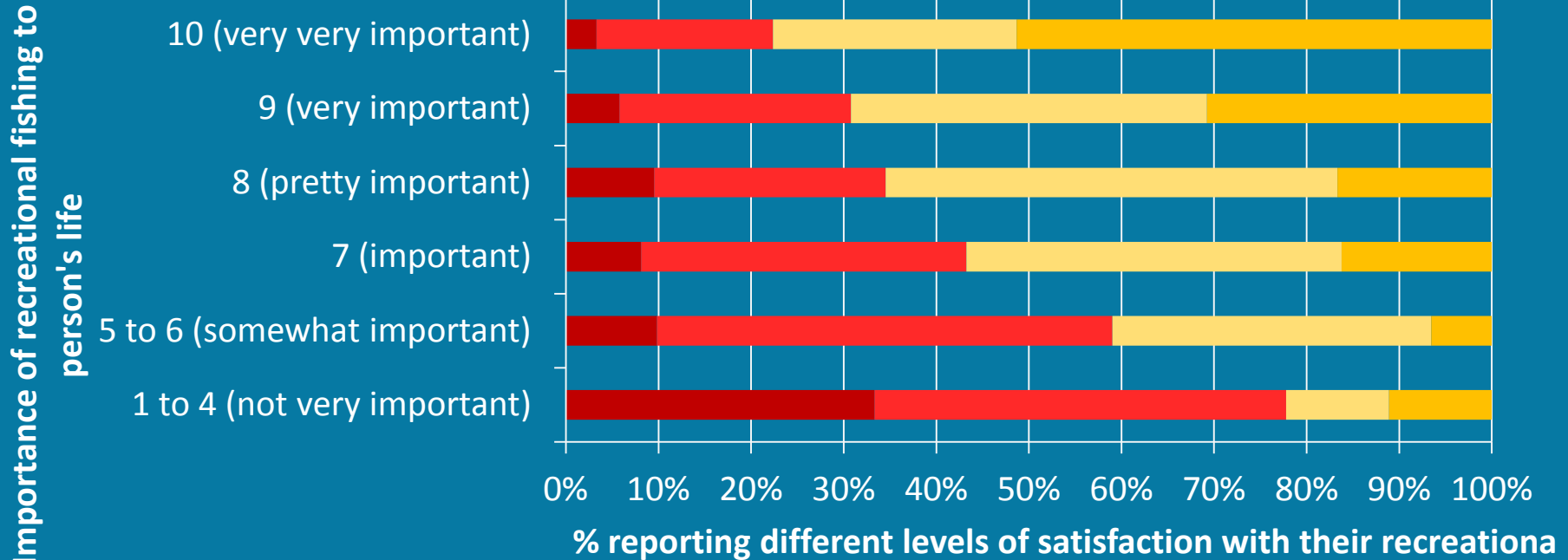
# Importance of vs satisfaction with recreational fishing activities

■ 1 to 4 (low satisfaction)

■ 5 to 6 (moderate satisfaction)

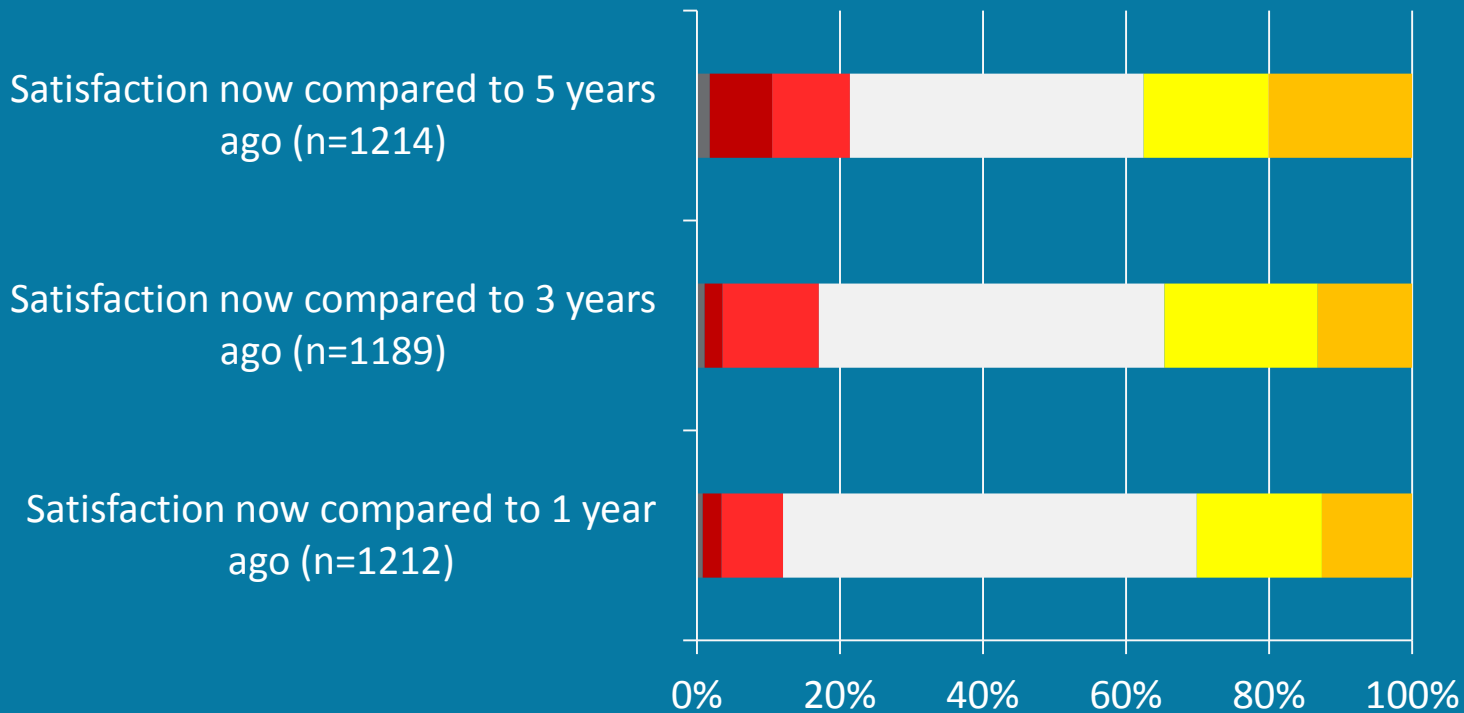
■ 7 to 8 (high satisfaction)

■ 9 to 10 (very high satisfaction)

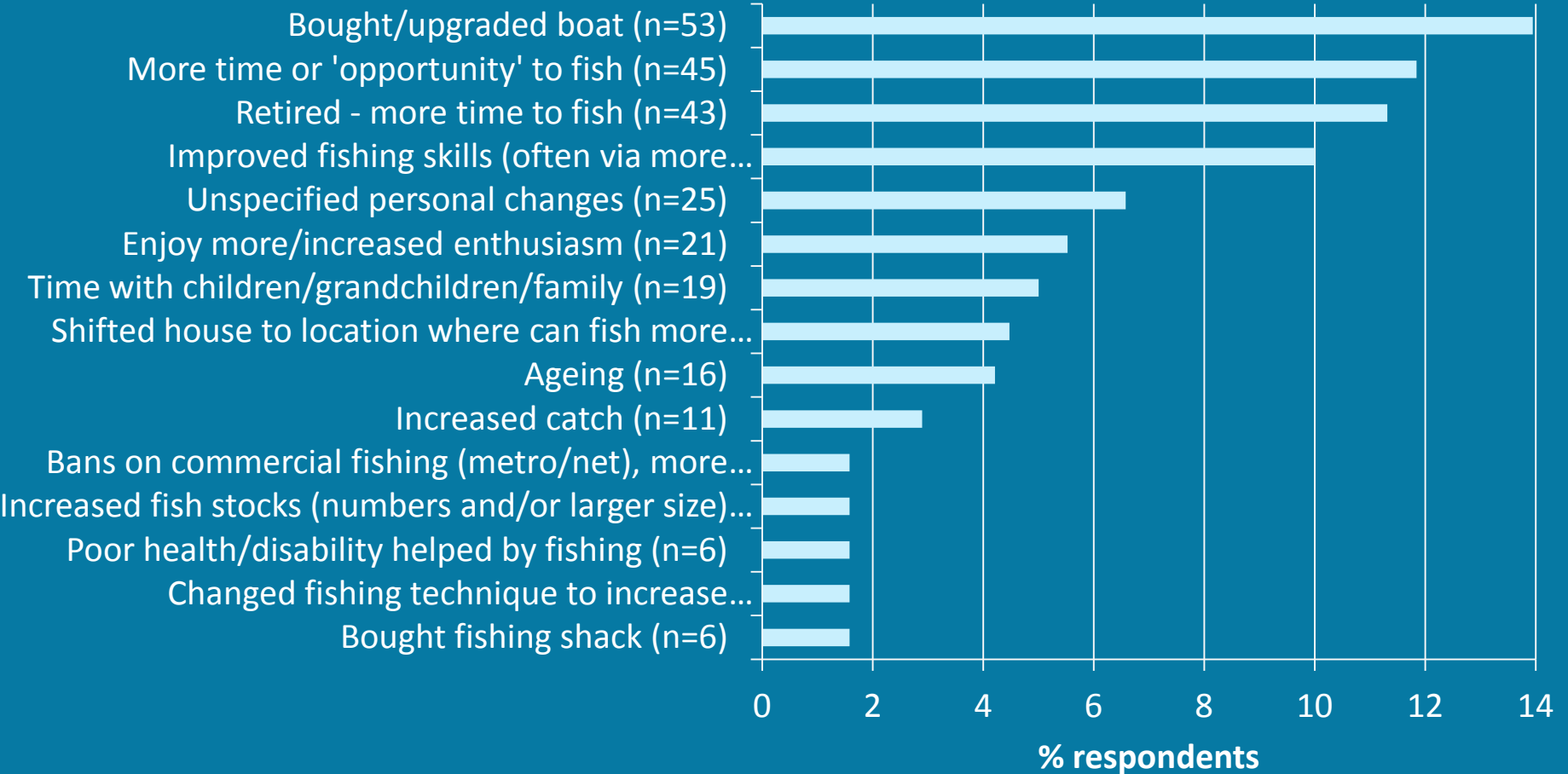


# How does your fishing satisfaction now compared to that experienced 1, 3 and 5 years ago?

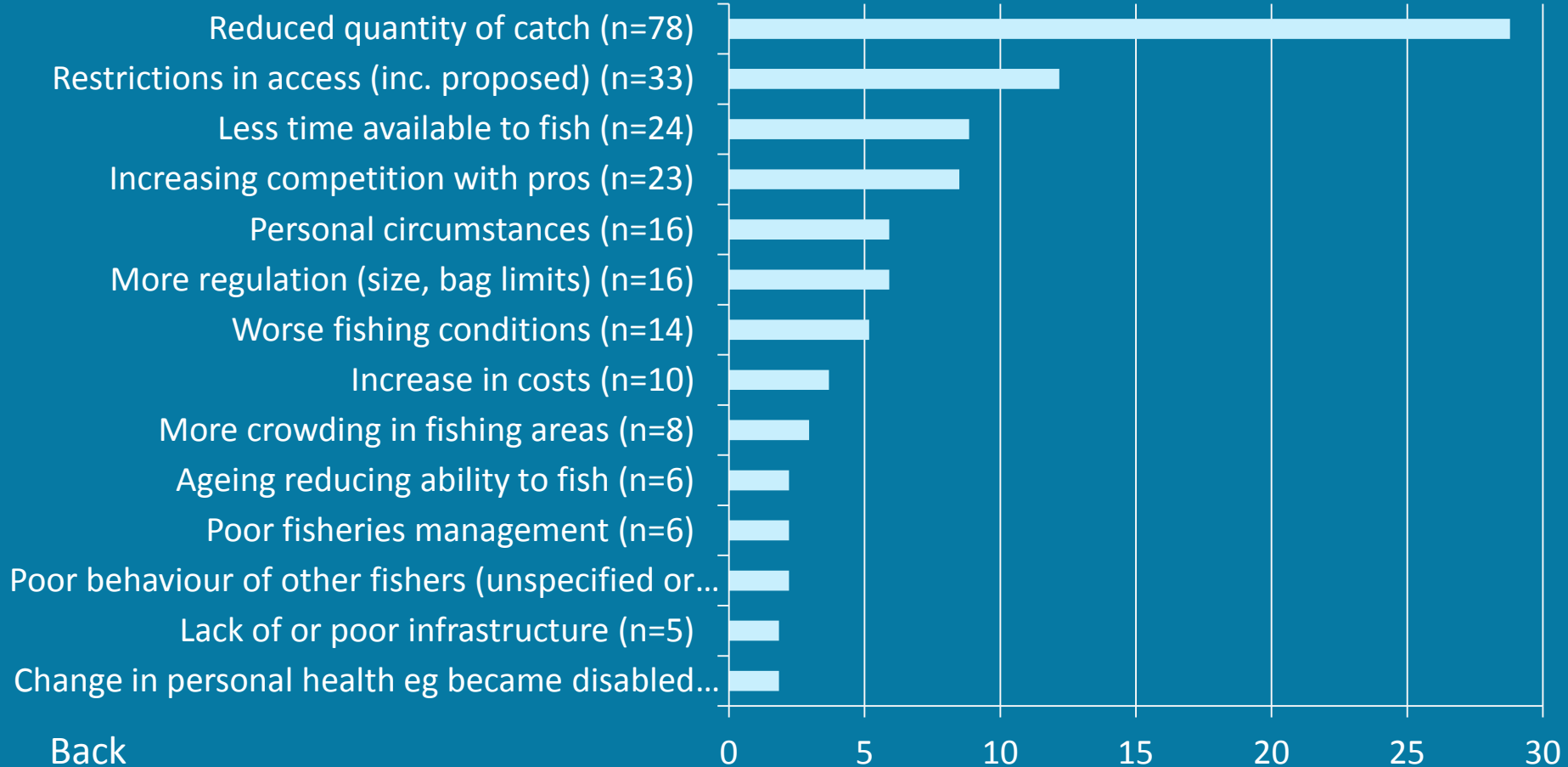
■ N/A ■ Much lower ■ Lower ■ About the same ■ Higher ■ Much higher



# Why fishing satisfaction has increased – first listed response



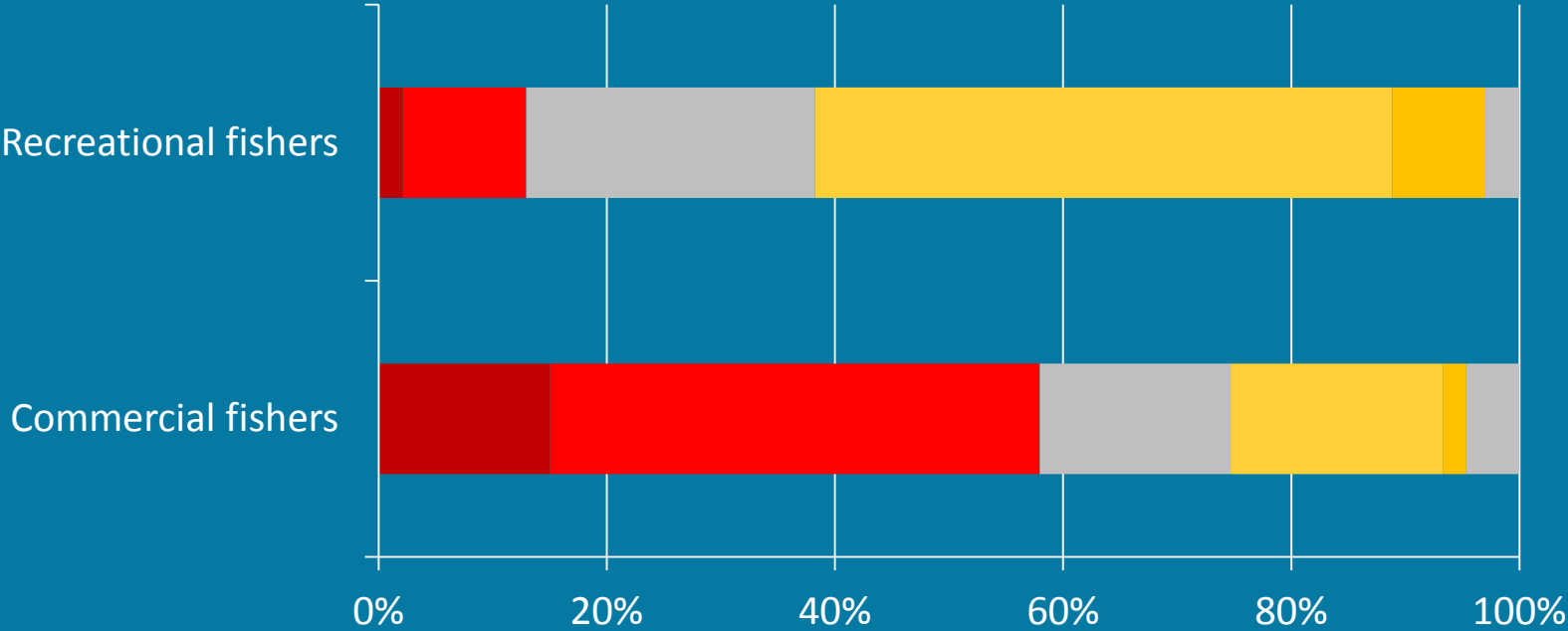
# Why fishing satisfaction has decreased – first listed response



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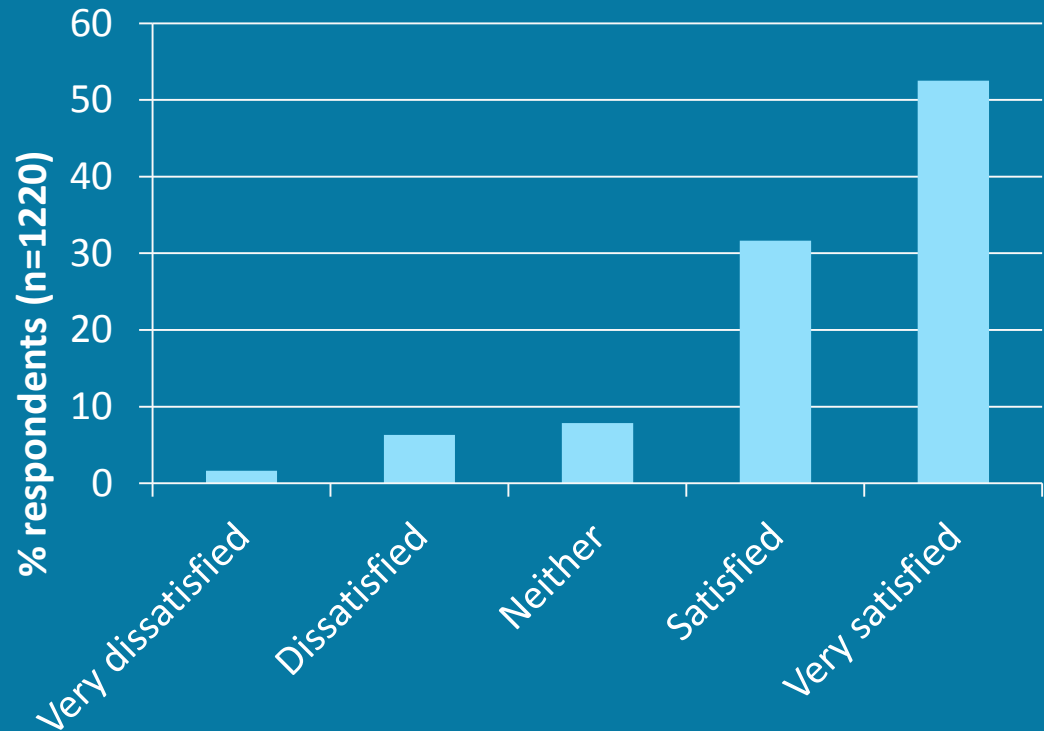
# How do you believe most people in the community perceive commercial and recreational fishers?

- Very negatively
- Negatively
- Neither
- Positively
- Very positively
- Unsure/don't know



# How does rec fishing influence your overall wellbeing (life satisfaction)

- Asked respondents how satisfied they are with life overall
- Life satisfaction (wellbeing) affected by many factors
- Only one will be rec fishing
- So is rec fishing linked to wellbeing?



# Why examine wellbeing benefits?

- To communicate benefits to others
  - A lot of focus on \$ benefit of **spending, jobs**
  - What about **health, wellbeing benefits**?
    - Potential for substantial avoided health care costs – can be measured
- To better understand barriers and opportunities to rec fish participation
  - As well as understanding how rec fishing changing (who is fishing), need to understand *why* it is changing
  - What can we do to influence participation?
- To maximise 'triple bottom line' - maximise positive social benefits while maintaining ecological sustainability



# Understanding benefits

- Recreational fishing commonly promoted as benefiting health, wellbeing of fishers & local communities
- What is a 'benefit'?
  - Monetary/economic benefit
    - Spending of money, generation of jobs
  - Wellbeing benefit (sometimes represented in \$)
    - Your wellbeing is your overall quality of life or satisfaction with life
    - Higher subjective wellbeing often associated with better health (mental and physical)
    - Monetary/economic benefits contribute to wellbeing
    - Few studies of this broader concept of wellbeing and links to rec fishing

# Are fishing and wellbeing linked?

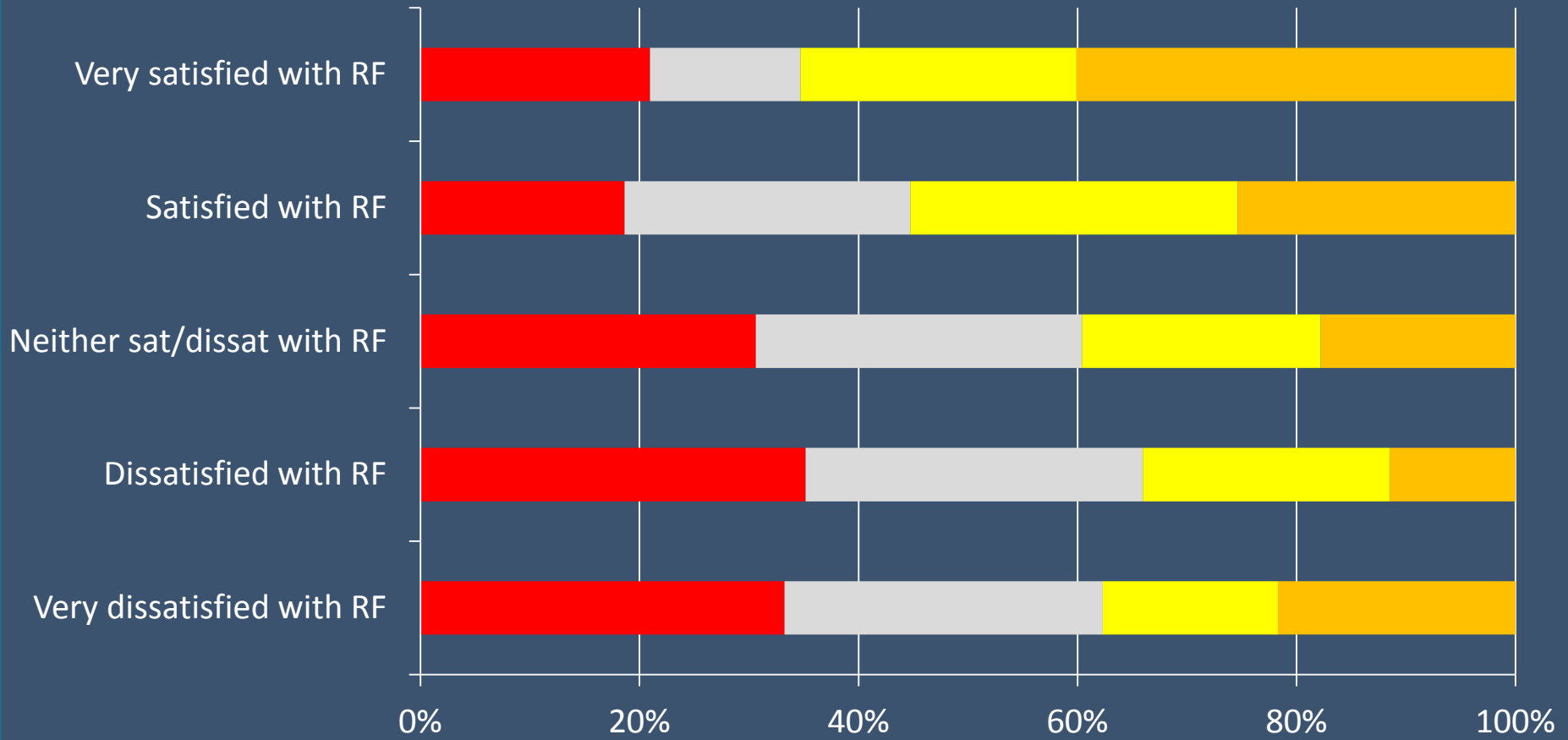
- Yes!
  - The happier you are with your fishing, the higher your wellbeing (life satisfaction)
  - If your happiness with fishing has increased over time, wellbeing typically higher
  - If your amount of fishing has dropped recently, wellbeing typically lower
- But...
  - It doesn't matter how much you fish – a little fishing may be as important to wellbeing as a lot
  - You don't have to spend a lot to get wellbeing benefits – higher wellbeing not linked to amount you spend on fishing
  - Wellbeing not linked to membership of fishing clubs
  - We don't know direction of linkage – if you have higher wellbeing, do you enjoy fishing more, or vice versa (or both)

■ Dissatisfied with life

■ Satisfied with life

■ Neither dis/sat with life

■ Very satisfied with life



# How are fishing and wellbeing linked?

- People who rated the following aspects of rec fishing important were more likely to have high life satisfaction (wellbeing):
  - Spending time with family
  - Spending time with friends
  - Eating the fish they catch
  - Getting away from people (less strongly linked)
- People who fish for the following reasons had no significant links between wellbeing and their RF activities:
  - Relaxation
  - Being outdoors
  - Continuing family tradition of fishing
  - Fishing for sport competition
  - The enjoyment or sport of fishing
  - Passing on knowledge about fishing



# How are fishing and wellbeing linked?

- Fishing and wellbeing more likely to be associated if a person:
  - Felt confident they could access rec fishing information/skills
  - Felt able to understand and comply with rules/regs (didn't find them too complicated)
  - Felt most fishers fish responsibly
  - Felt PIRSA is a good manager of rec fishing
  - Felt rec fishers are perceived positively by the public
  - Felt rec fishers are treated fairly (rules/regs, access etc)

## Bottom line:

- If you have access to resources and knowledge that help you fish well and feel you are treated fairly – more likely to achieve wellbeing benefits from fishing
- If you think fishing is complicated, hard, you don't have skills, that you might be criticised or treated unfairly – you get less benefits

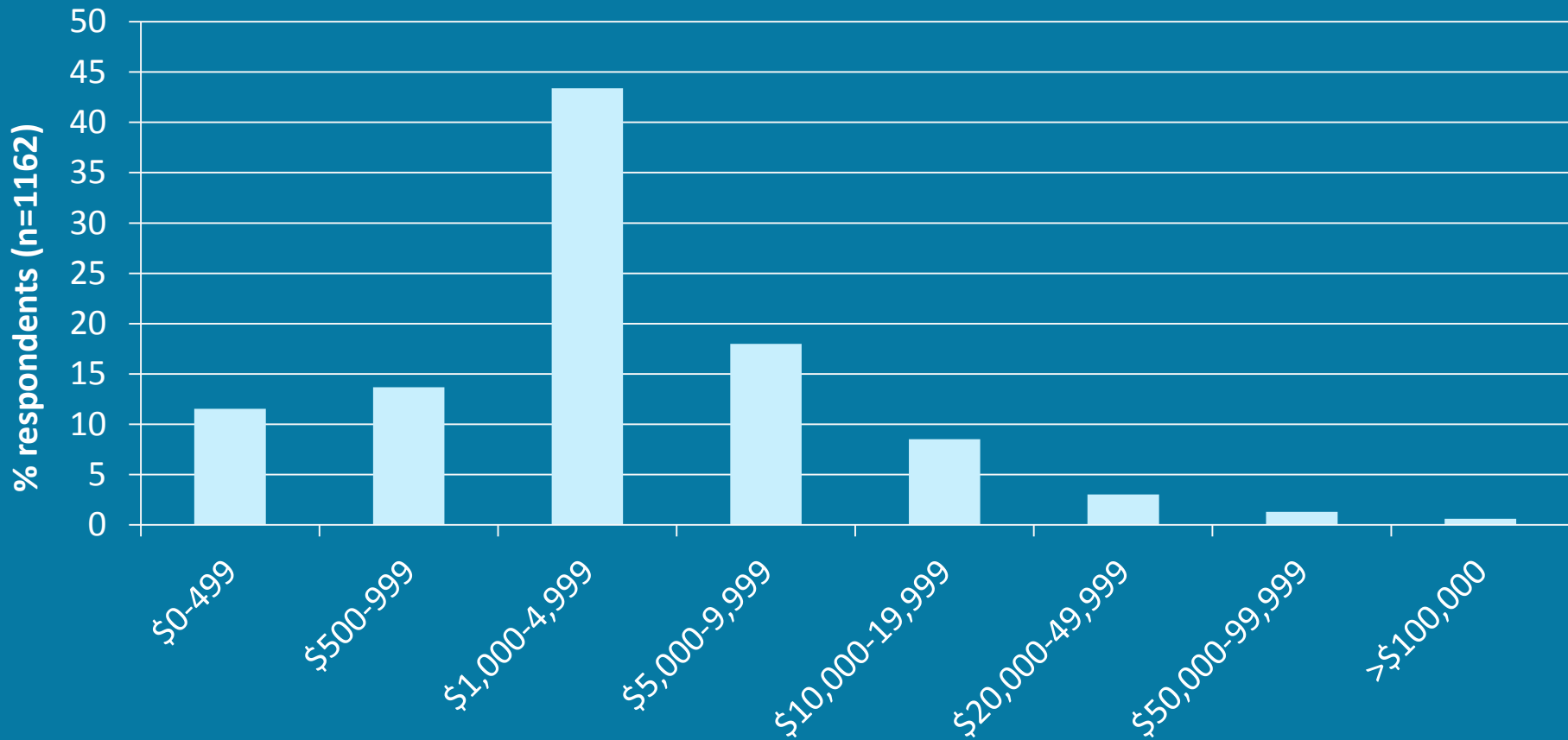
# Economic contributions

- Survey asked how much is spent on rec fishing, & where
- This information needs to be combined with sophisticated economic tools to identify full economic contribution

# Spending

- Traditional measures of \$ matter
- As well as how much people spend, need to ask
  - Who spends what?
  - Where do they spend it?
  - What jobs does this spending generate?
    - Directly
    - Indirectly

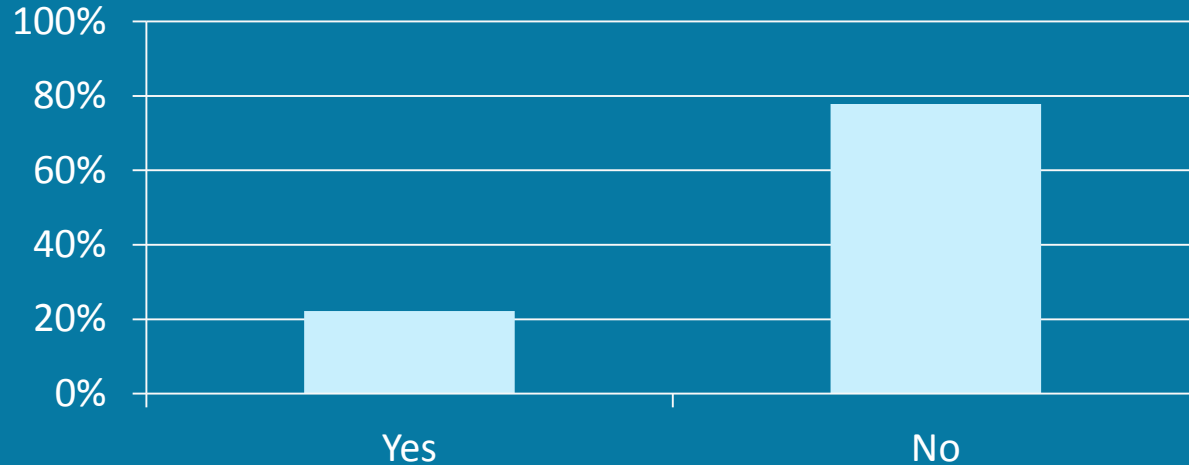
# Rec fish spending in last 12 months



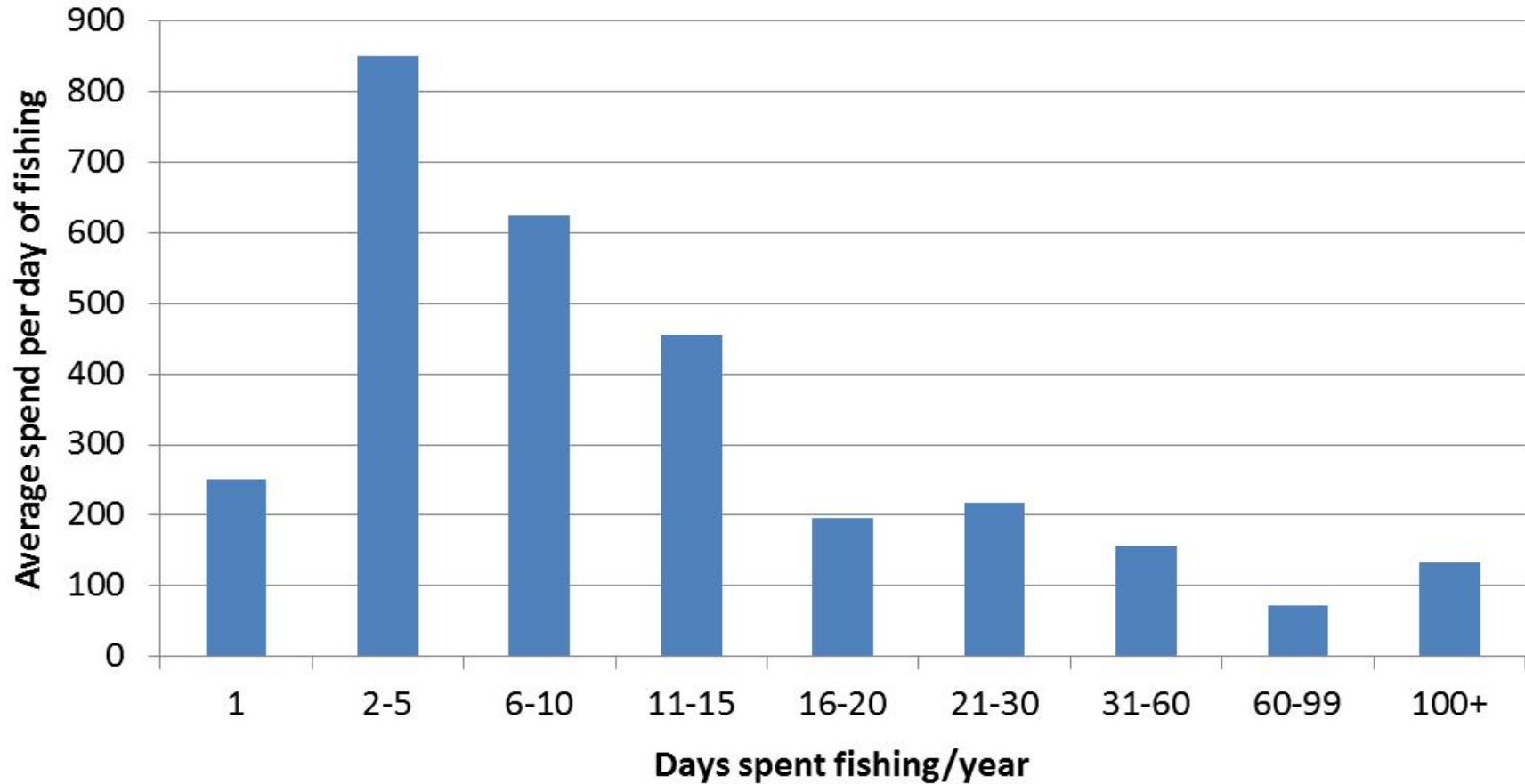


# Investment in rec fishing

**Do you own a holiday home purchased partly so you can fish in the local area?**



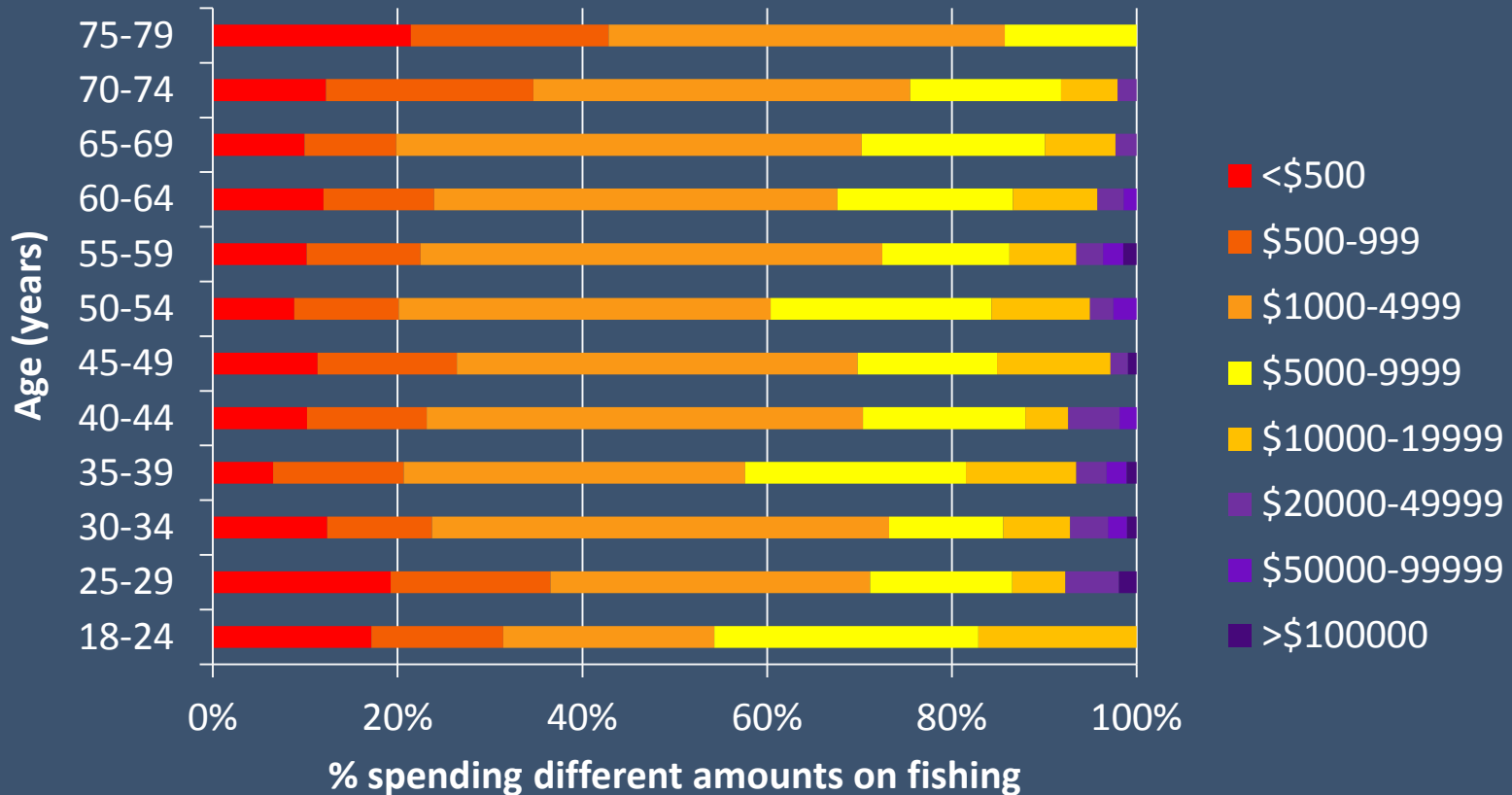
Those who fish more typically spend more - but additional spending doesn't go up at the same rate as days



# Who spends more/less?

- Linked to satisfaction with fishing
  - Very low spending – less likely to be satisfied
  - Very high spending – less likely to be satisfied
- If you find fishing important for
  - Being outdoors \$\$\$
  - Relaxation \$\$\$
  - Family tradition \$\$\$
  - Sporting comps \$\$\$
  - But those for whom fishing is important for family, friends, solitude, eating catch DON'T spend more or less than average
- Spending not highly related to age, marital status, education
- Those with higher income spend more on fishing
- Those who spend more are more likely to own a boat, to be member of RF association

# People spend a bit less when they are <30, and >70



# Where do people spend?

- Still being analysed...

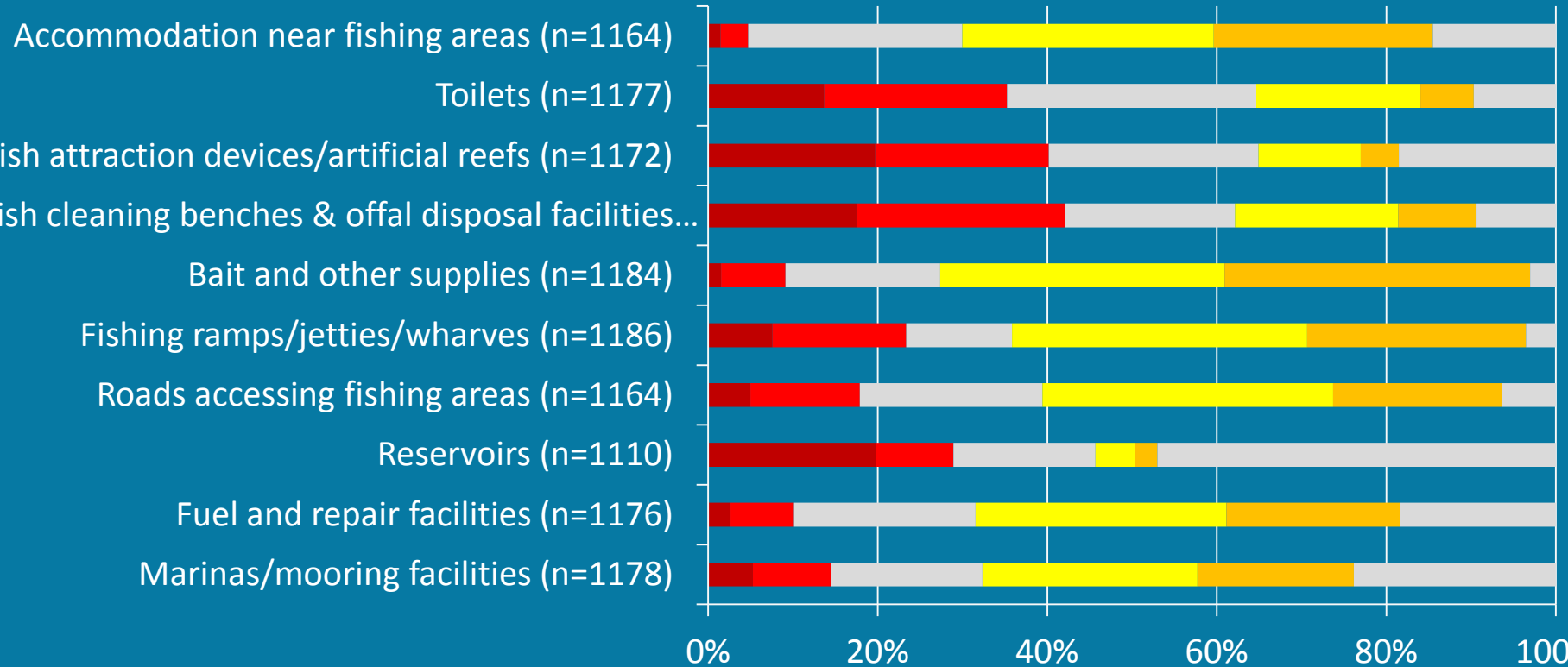
# Governance

- Governance refers to the systems by which recreational fishing is managed, and by which fishers seek to have influence on that management
  - Infrastructure
  - Views about management
  - Views about consultation/engagement
  - Fairness of fishery management
  - Information and communication needs

# Satisfaction with infrastructure access

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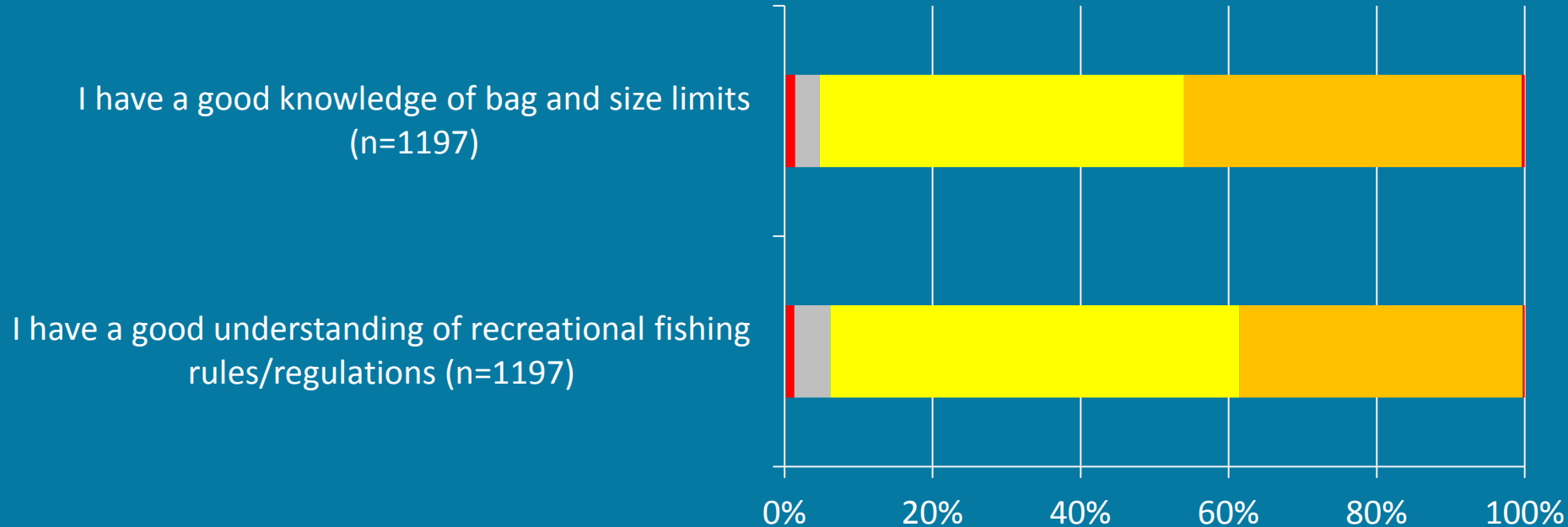
Very dissatisfied   Somewhat dissatisfied   Neither   Somewhat satisfied   Very satisfied   N/A



## Degree of awareness/understanding of regulations

Measuring this is highly challenging as self-perception often optimistic; asking specific questions would be preferable eg multiple choice question 'is the bag limit for [fish species] 5/10/15':

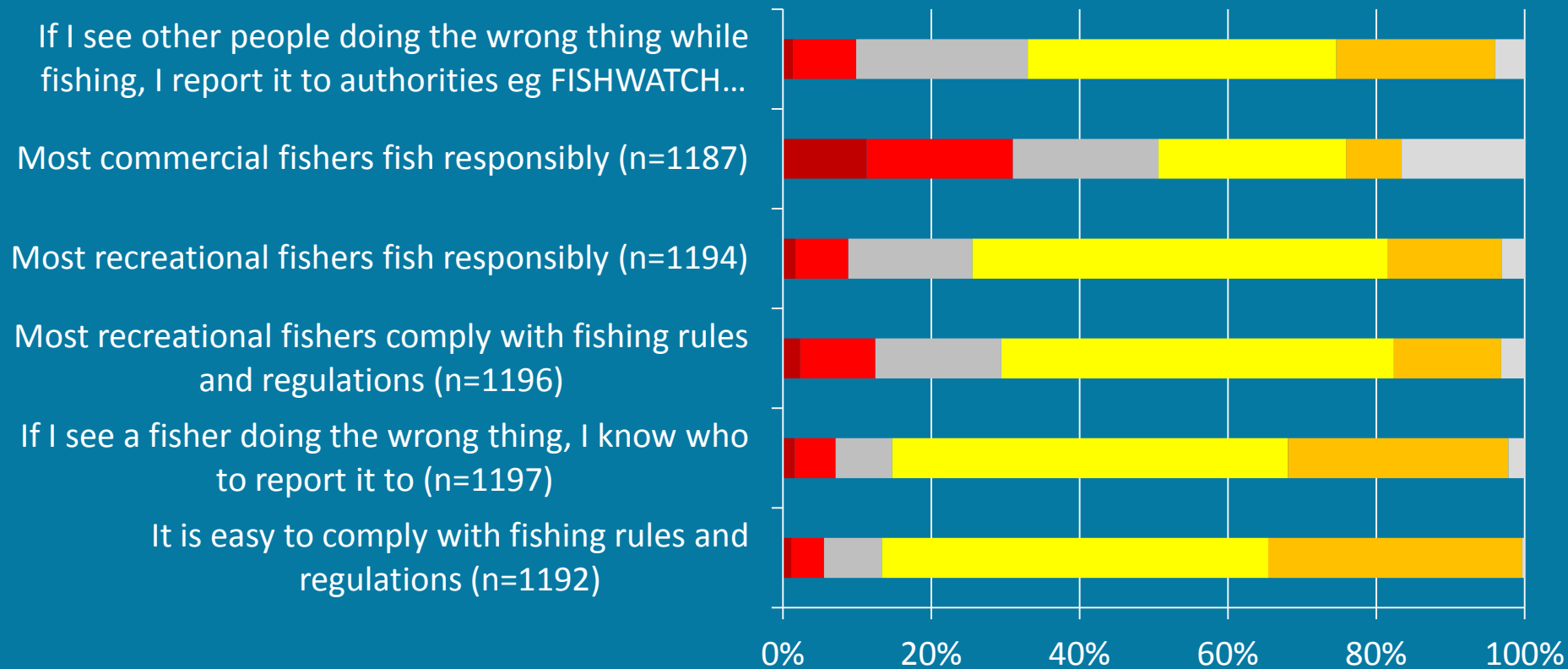
Strongly disagree Disagree Neither Agree Strongly agree Don't know





# Views about stewardship, rules and regulations

Strongly disagree Disagree Neither Agree Strongly agree Don't know

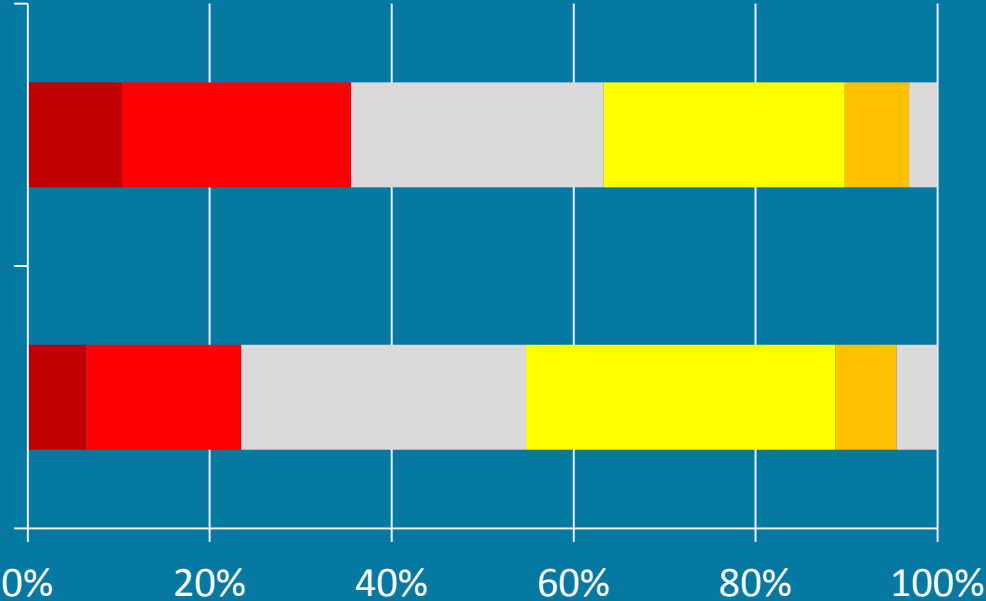


# Level of trust in fisheries management

Strongly disagree Disagree Neither Agree Strongly agree Don't know

I trust PIRSA to make the right decisions for managing recreational fishing in SA (n=1179)

PIRSA do a good job of managing recreational fishing in SA (n=1181)



# Perceptions of equity of treatment in process and outcomes of fisheries management

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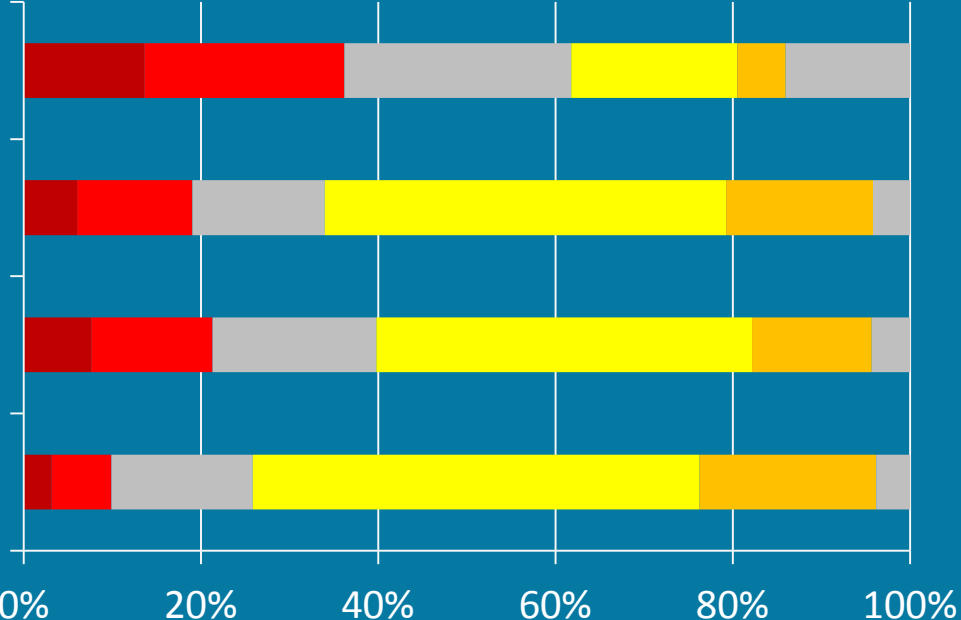
Very unfair Unfair Neither Fair Very fair Don't know

The processes used to make decisions about fisheries management (n=1175)

Allocation of catch (n=1177)

Access to fishing areas (n=1179)

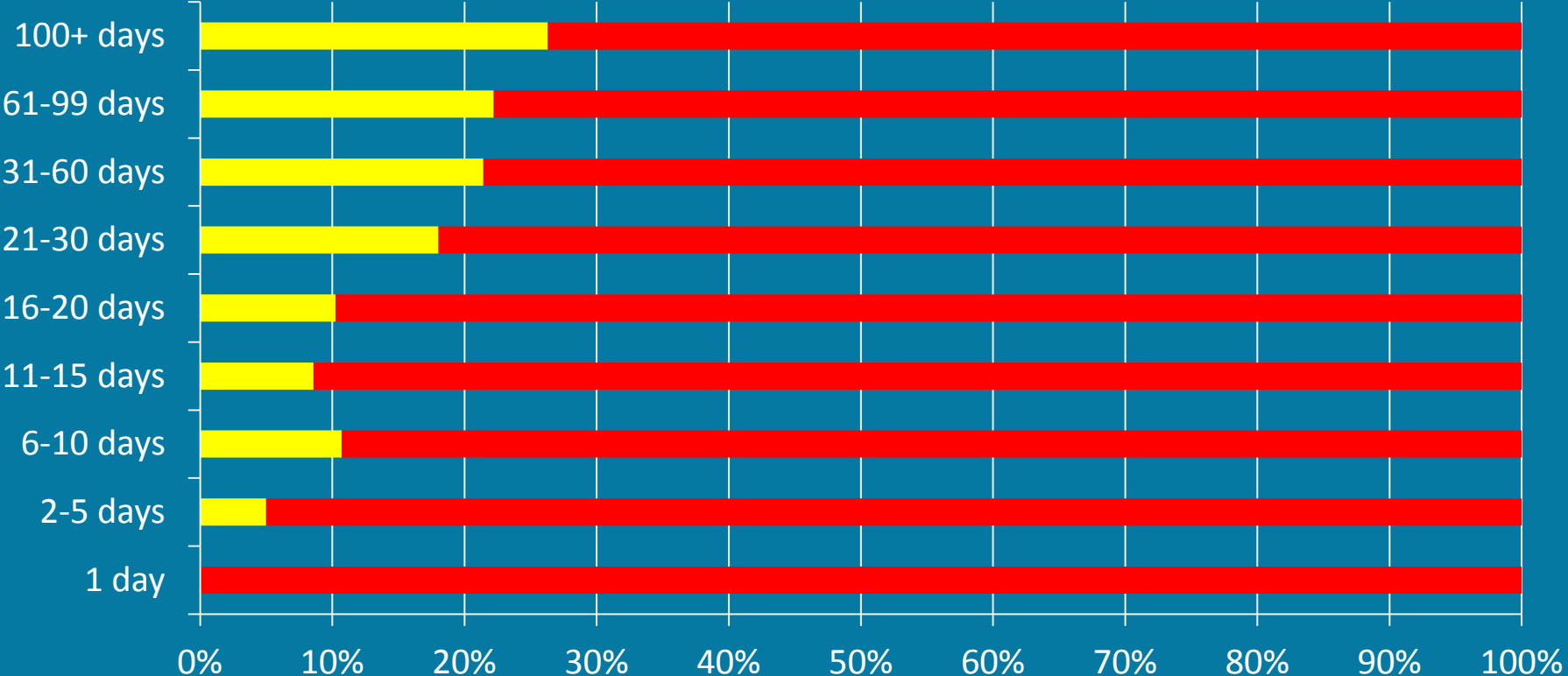
Gear restrictions (n=1180)



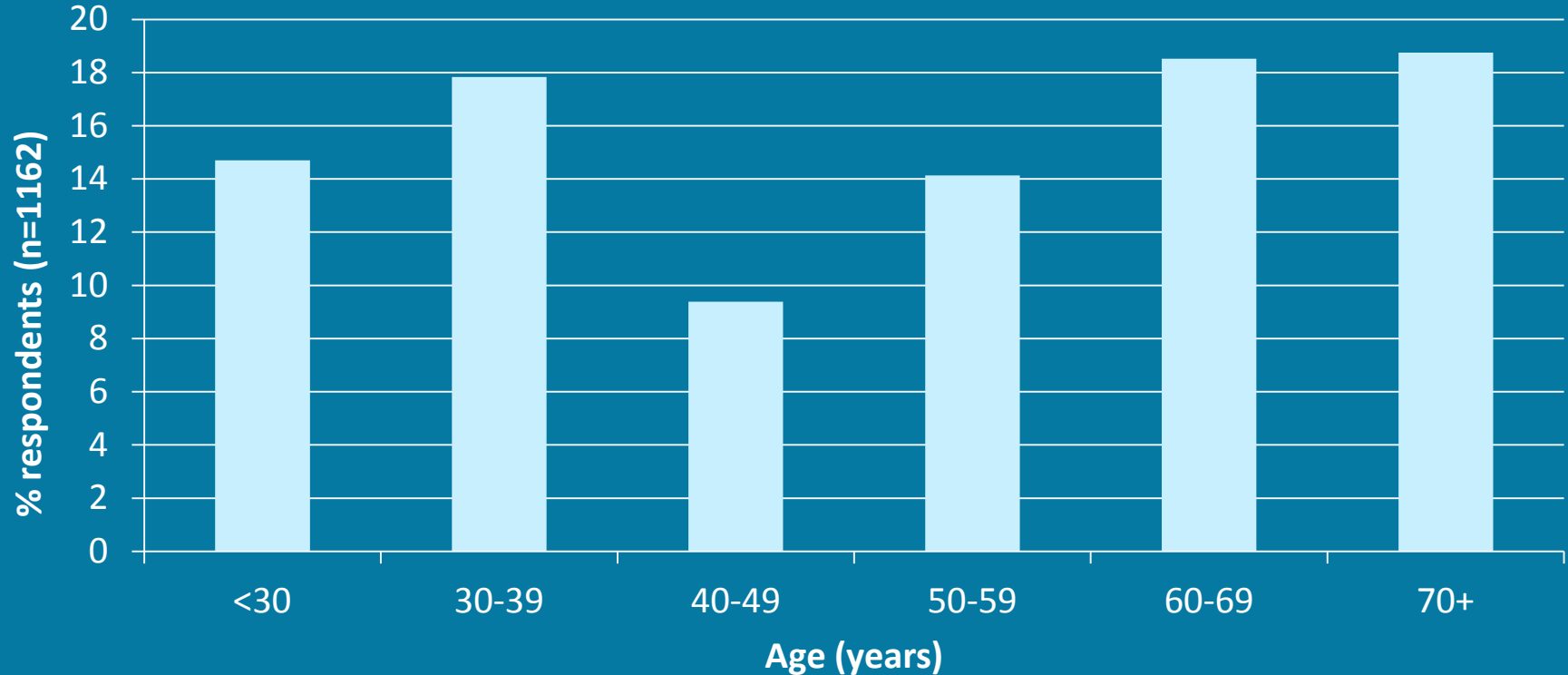
How fairly do you feel recreational fishers are treated by fisheries managers compared to other users of fisheries resources?

# Membership of fishing organisations by days spent fishing/year

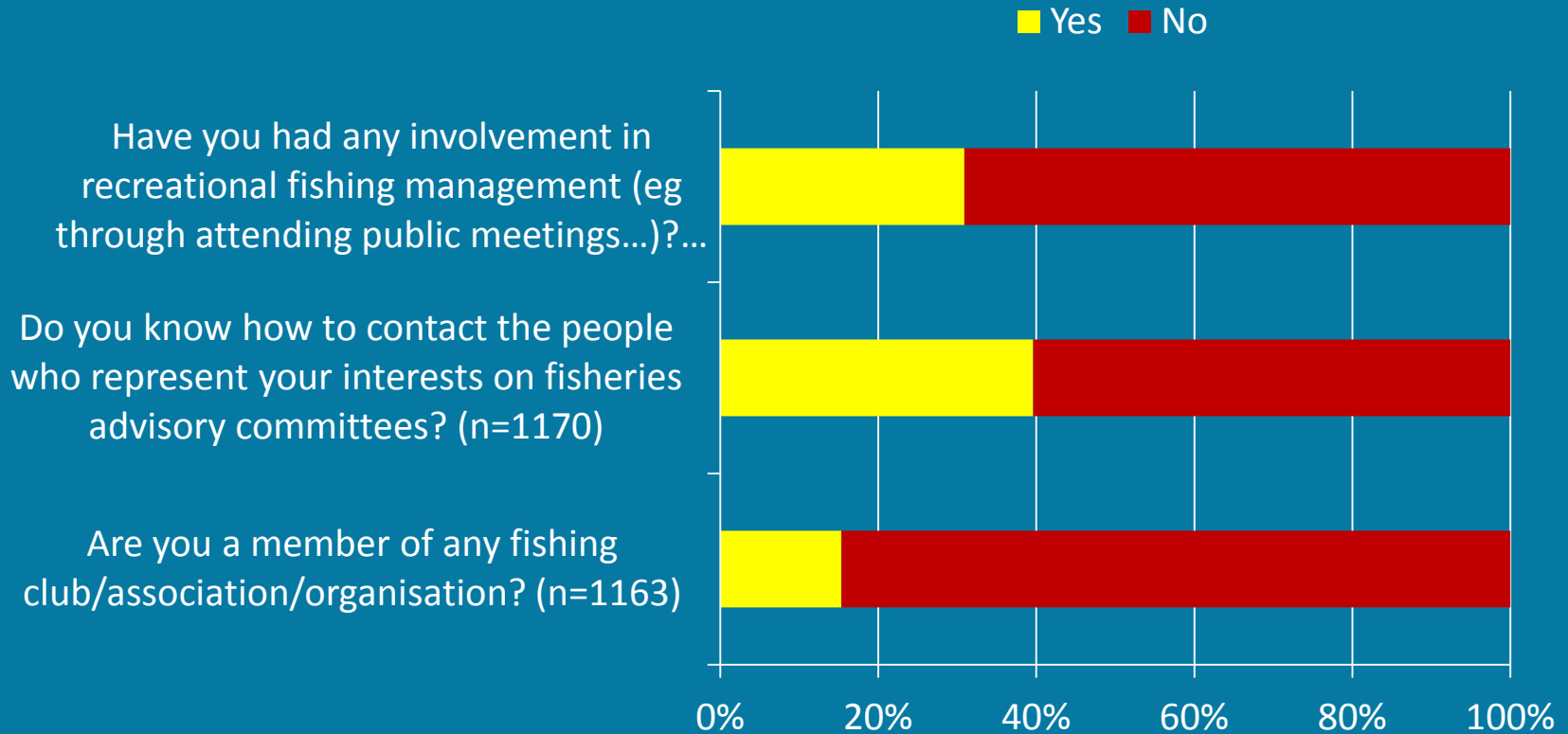
Yes No



# % respondents who are members of a rec fishing organisation, by age group

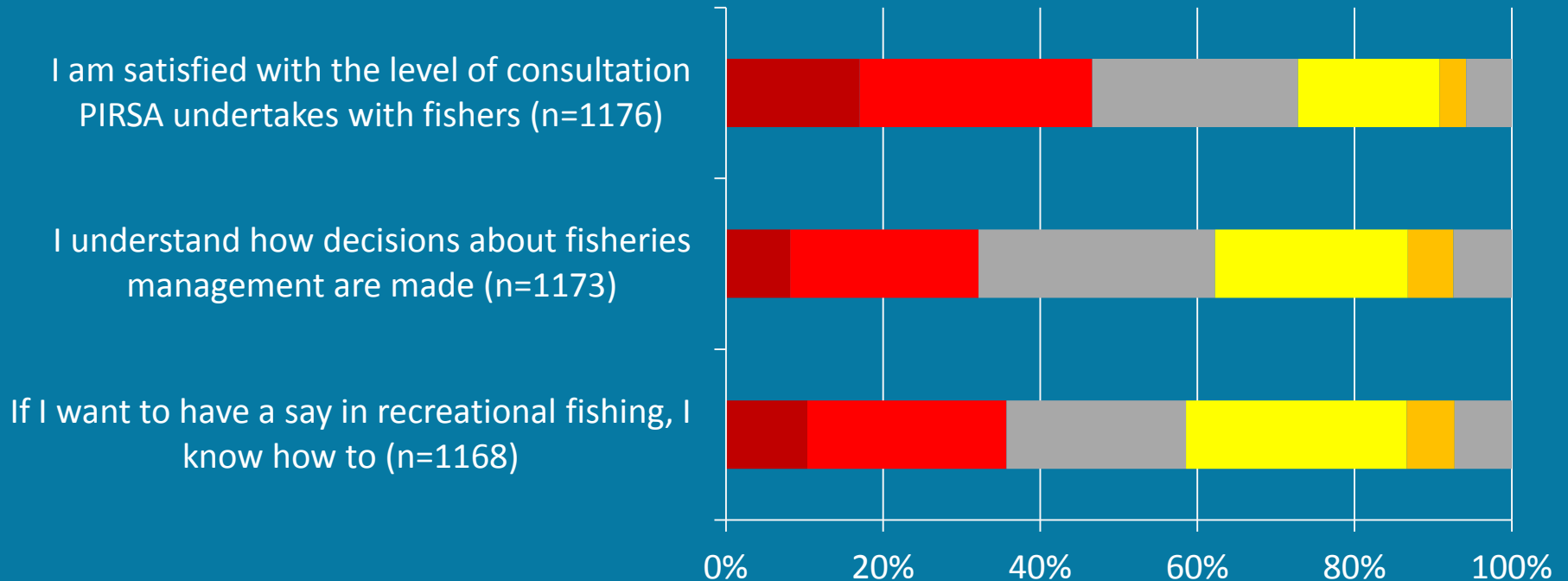


# How many rec fishers actively participate in fisheries management?



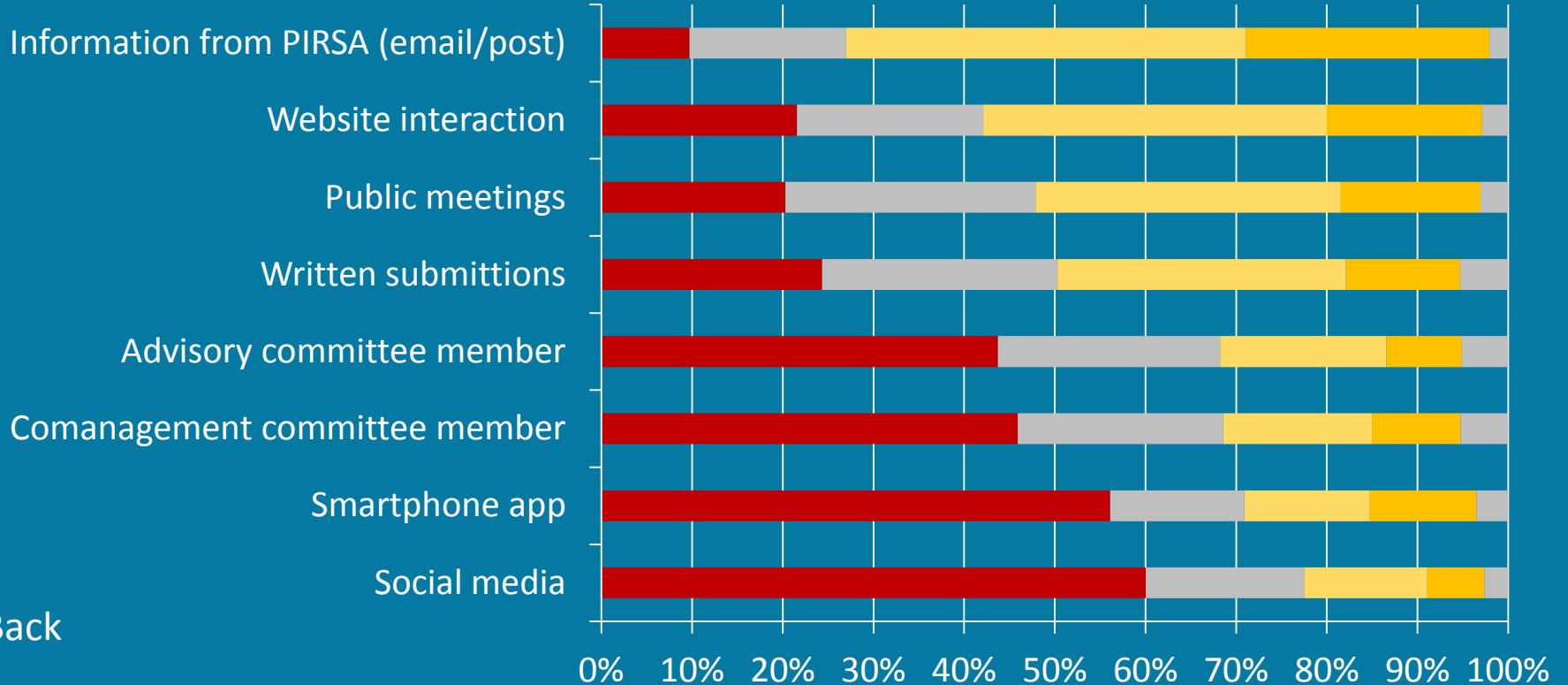
## Ability to take part in fisheries management & satisfaction with consultation

Strongly disagree Disagree Neither Agree Strongly agree Don't know



# If you wanted to know more/get involved, what ways would you prefer to do this?

■ Not interested ■ A little interested ■ Interested ■ Very interested ■ Don't know/unsure

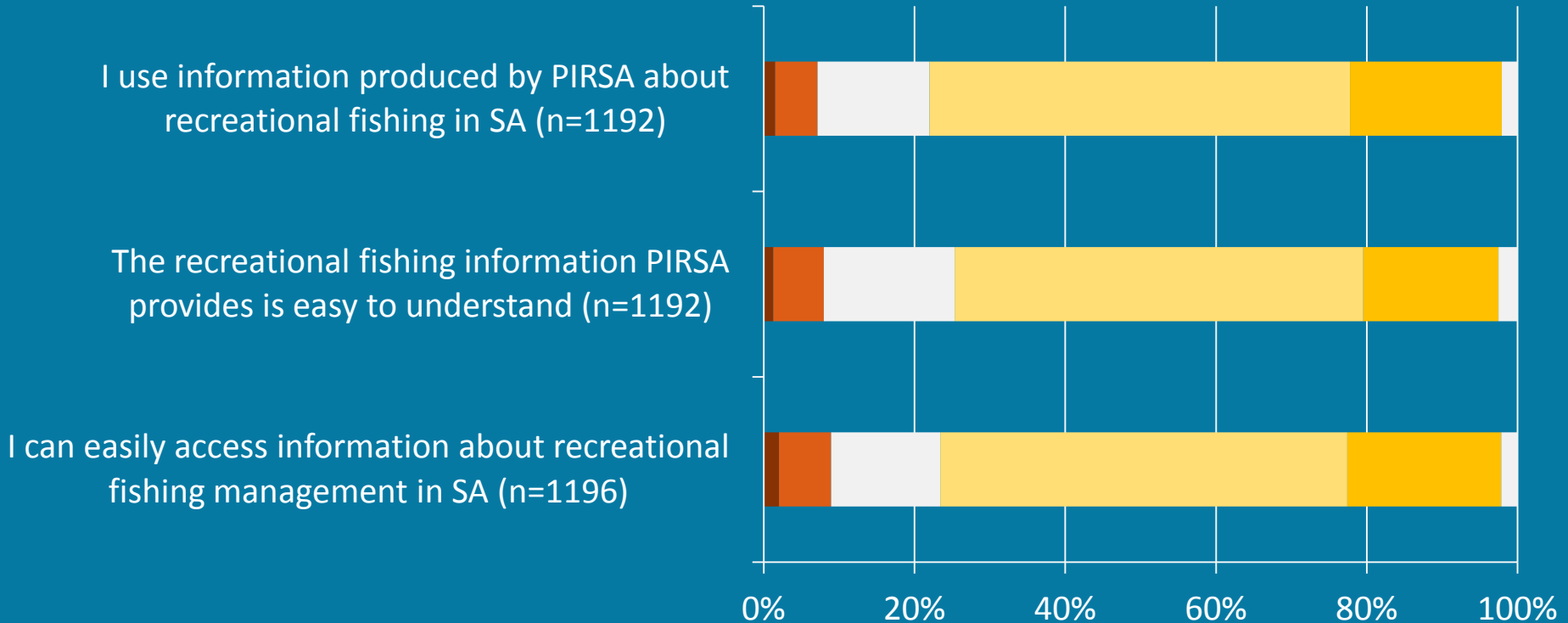


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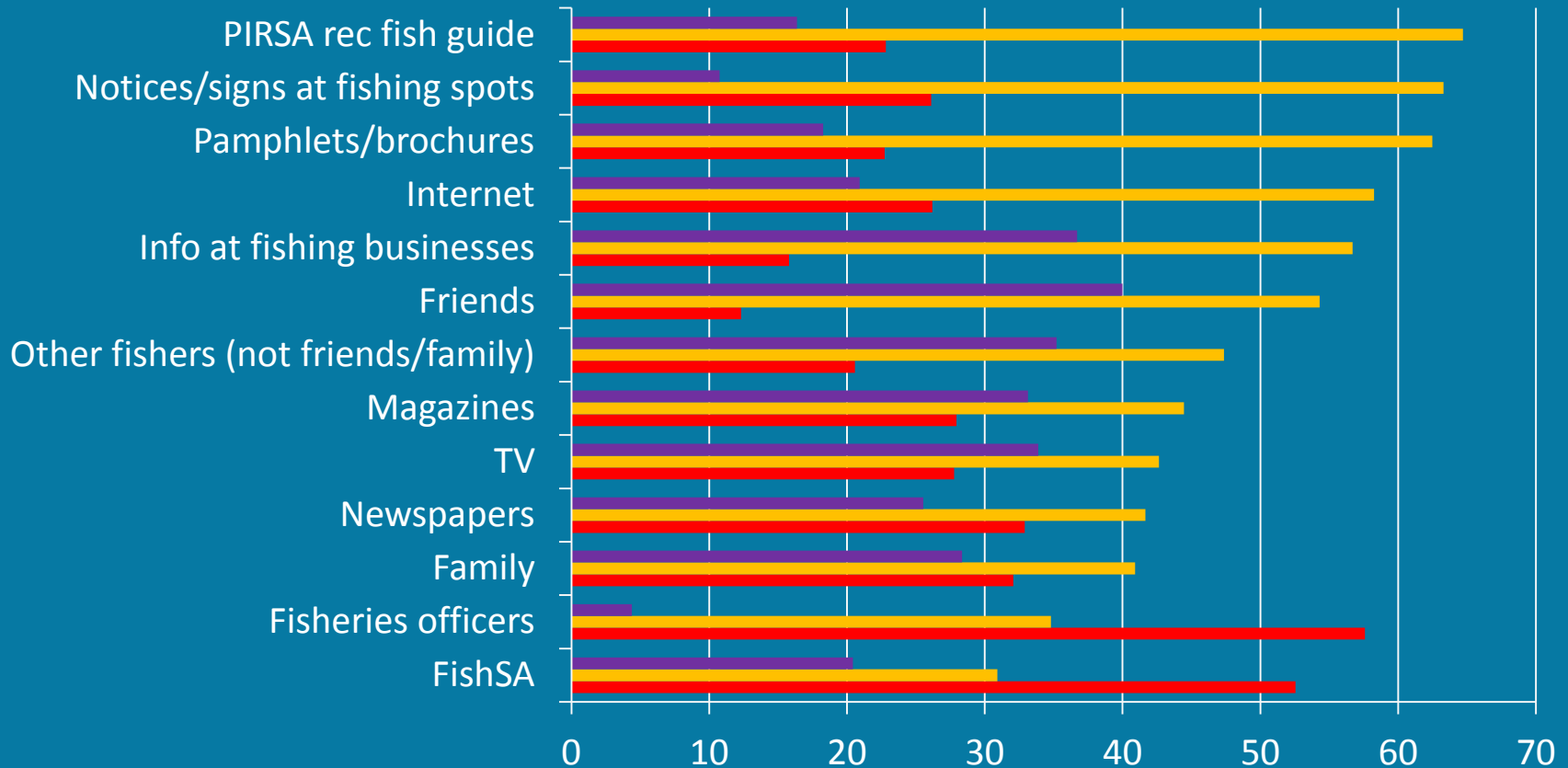
# Satisfaction with information provision

Strongly disagree Disagree Neither Agree Strongly agree Don't know



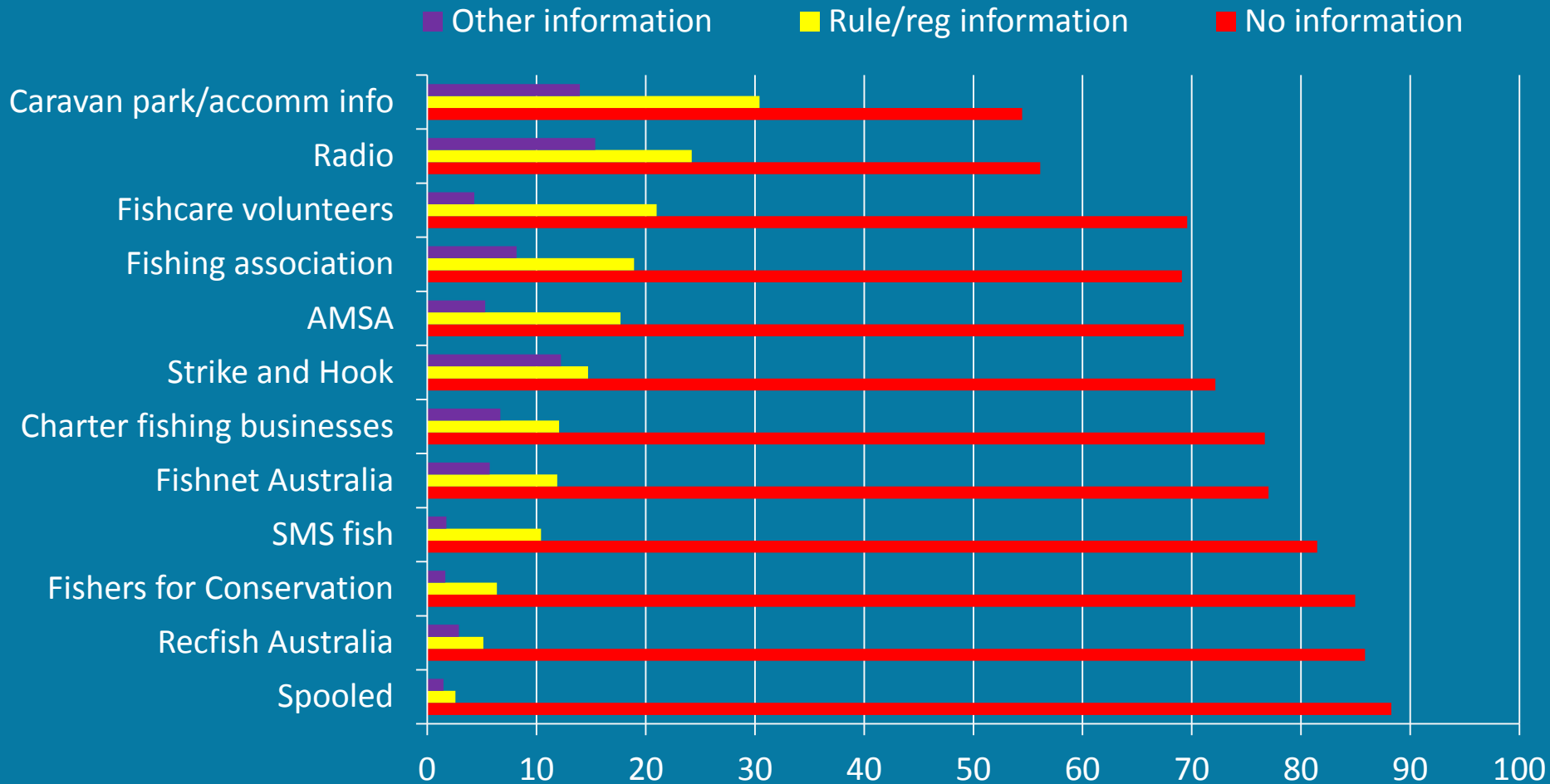
# Where do you get info about rec fishing?

■ Other information    ■ Rule/reg information    ■ No information



# Where do you get info about rec fishing?

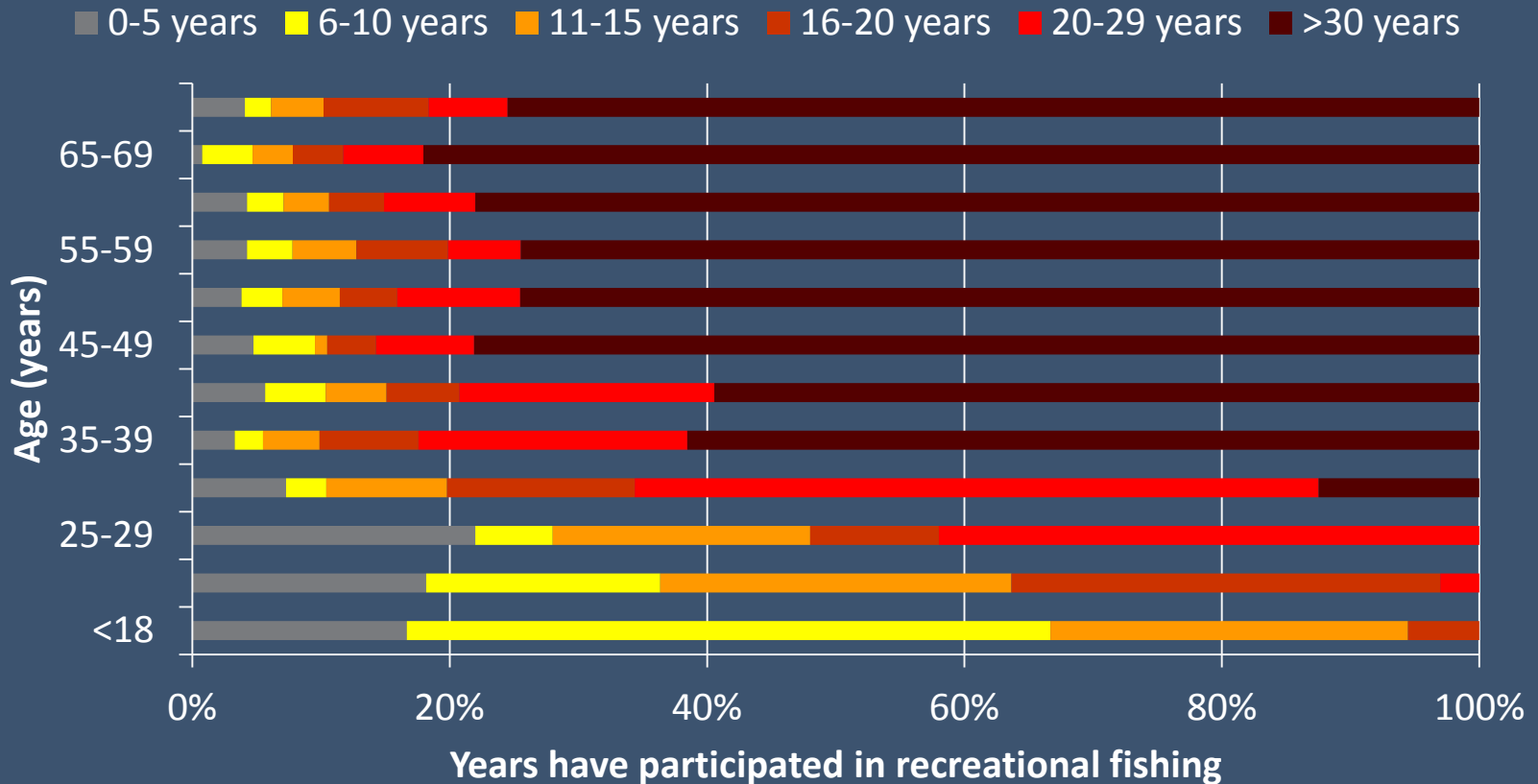
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# Recruitment - encouraging people to fish

- How does understanding benefits help in addressing participation decline?
  - Can use analysis to identify critical challenges to recruitment based on benefits/costs experienced by different types of rec fishers
  - Use this knowledge to target the things that matter to fishers

# Childhood is principal recruitment time



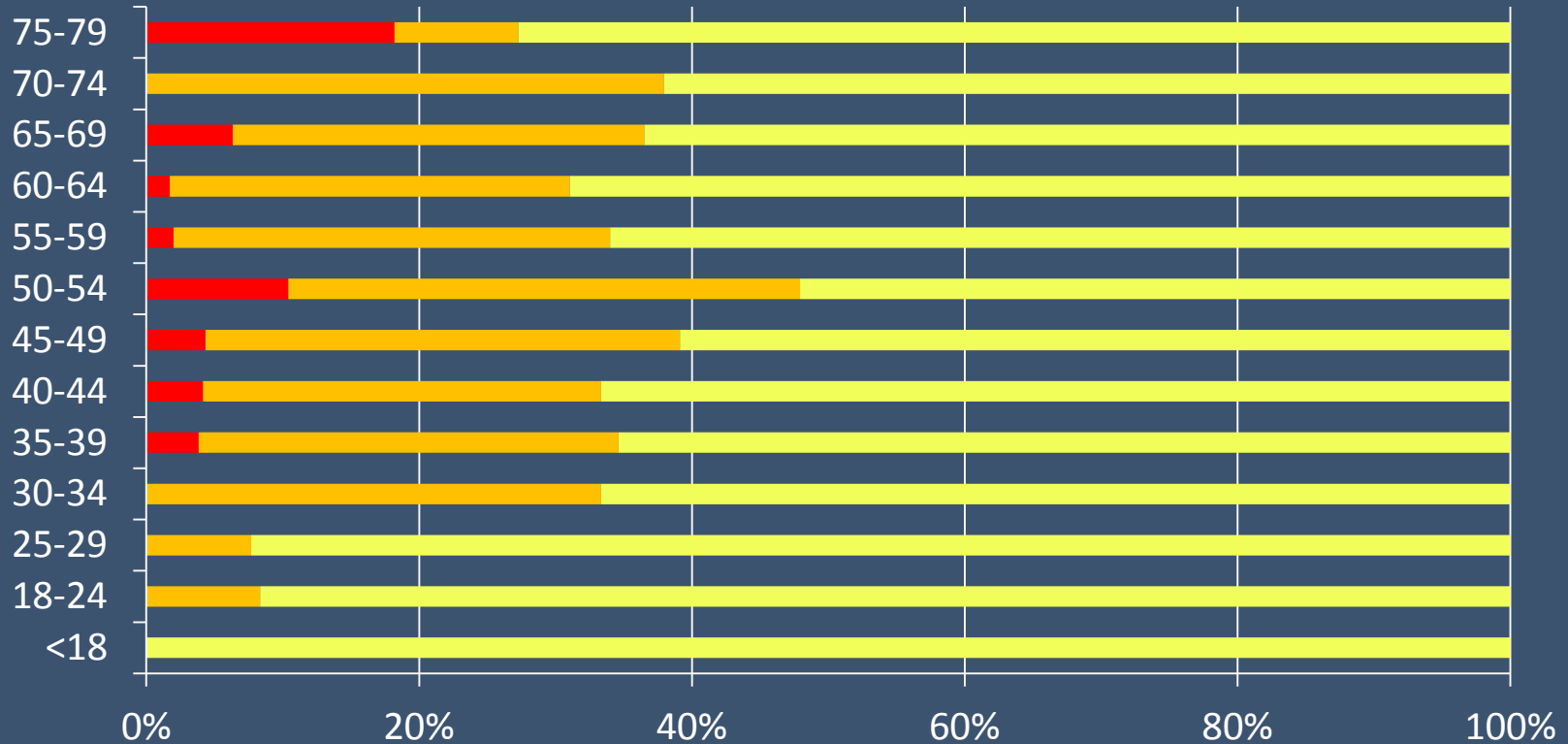
# Younger fishers...

- Are typically avid, satisfied fishers (good for wellbeing):
  - Generally more satisfied with their rec fishing than older fishers
  - Fish more days, more likely to report they are increasing number of fishing days
- Have different fishing goals to older fishers (not as associated with wellbeing as older fisher's goals)
  - More likely to fish for solitude, fishing comps, time with friends; less likely to fish to spend time with family or to 'catch a feed'
- Lack confidence and knowledge in some areas (bad for wellbeing)
  - Less likely to be involved in fisheries management processes (eg consultation, public meetings) or know how to contact fishing representatives
  - Complex relationship with RF org membership – except for 25-29 years old, younger people less likely to join a club; membership lowest during late 30s, early 40s
  - Less likely to feel have adequate access to training or can comply with regulations
- More likely to have negative views about rec fishing as a whole (bad for wellbeing)
  - More likely to think rec fishers are perceived negatively by public
  - Less likely to think they have fair access to fishing areas
  - Less satisfied with available fishing infrastructure
  - Less likely to think most rec fishers comply with rules/regs

We are currently exploring what all this means a bit further ... some early ideas follow

# Rec fishing satisfaction by age

■ Dissatisfied   ■ Somewhat satisfied   ■ Very satisfied



# What are the challenges for increasing rec fishing participation?

## One theory: 'risk society' and 'nature deficit disorder'

- The theory is that young people
  - Increasingly view natural environment as risky, frightening, unclean, unsafe
  - Less likely to have skills and knowledge that empower them to enjoy – instead of fear – natural environment
  - In other words, **the natural environment is beneficial only if you have the skills, resources to navigate it, and are taught to view it as a positive place**
  - Parents and carers (eg schools) with inappropriate risk perceptions substantial contributors
- We don't have strong evidence – but what exists is compelling
- Is this one of the barriers to rec fishing participation?
  - Some of our evidence is consistent with the theory
  - We need to compare fishers and non-fishers in studies to better test it





# What would this mean for recruitment?

- Need to help young people to feel confident in the outdoors (and older people not taught when young)
  - Skills attainment = confidence to fish = ability to gain wellbeing benefits
  - Exploration = sense of independence, mastery
  - Support = ability to enjoy instead of fear natural environment
  - Who needs to do this? Parents? Schools?
  - Can we encourage/recruit people beyond 18?

**Skills attainment**



**Support**



**Exploration**

