

ARE YOU READY? READY FOR WHAT? – THE ISSUE OF UNDER-PREPAREDNESS BY RESIDENTS OF BUSHFIRE PRONE AREAS

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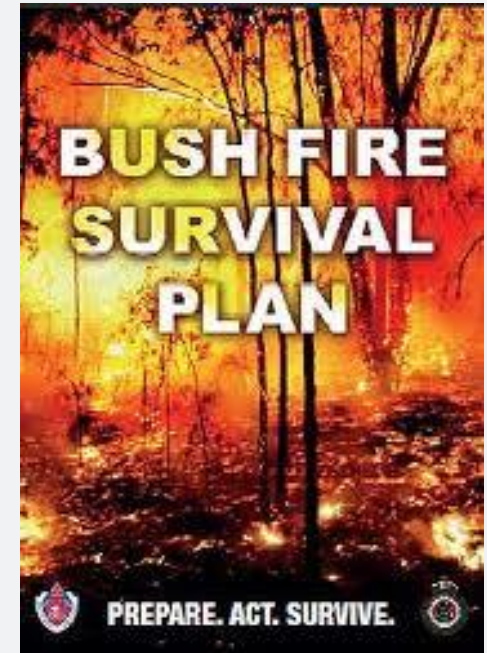
Psychological Sciences, Charles Darwin University, NT

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Background on Bushfire Plans

- Residents have 2 options:
 - 'Stay and Defend'
 - 'Leave Early'
- Pick a planned response and prepare before the fire season starts.
- Large percentage of people postpone their decision regarding defending vs. evacuating until the day of the fire (37% – 70% in our studies).



Do people who postpone their defence versus evacuation decision differ in their preparedness levels from people who have already decided whether they will defend versus evacuate?

What motivates people's intended fire response?

Demographics

- Two surveys: one at start of season (T1) and one at end (T2)
- 1700 surveys sent at T1 (e.g. Roleystone, Gidgegannup, Bunbury, Brigadoon, Gelorup, Stratham)
- 229 respondents completed T1 and T2
- 118 males, 111 females
- Average age 54.63
- 96.1% owned property (or in process of buying)
- 38% on residential block, 56.3% on small acreage, and 2.6% on large farm or property.

Intended Fire Response (T1)

Which one of the following do you think you will most likely do if a bushfire occurs in your town or suburb? **(Please select ONE response only)**

- ☐ Stay and try to protect your property throughout the fire
- ☐ Do as much as possible to protect your property but leave if the fire directly threatens it/reaches your property.
- ☐ Wait to see what the fire is like before deciding whether to stay and defend or leave.
- ☐ Wait for police, fire or other emergency services to tell you what to do on the day.
- ☐ Leave as soon as you know there is a fire threatening your town or suburb.
- ☐ You would not be at home because you intend to leave your property and stay somewhere else on days of extreme and catastrophic fire danger.
- ☐ Haven't thought about it.
- ☐ Other (please specify): ...

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Preparedness Types (T2)

- ☐ **Defence Preparation:** 9 items, e.g. 'You possess and have prepared equipment to put out spot fires and sparks, such as metal buckets, rakes, shovels, and mops'.
- ☐ **Evacuation Preparation:** 8 items, e.g. 'You have selected a suitable planned destination for evacuation'.
- ☐ **Property Preparation:** 22 items, e.g. 'Fuels (e.g., leaves, twigs and long grass) are cleared for a distance of at least 20m around the house'.
- ☐ **Survival Kit:** 9 items, e.g. 'You have obtained a portable battery-operated AM/FM radio'.
- ☐ **Psychological Planning:** 8 items, e.g. 'You have formed a household bushfire emergency plan'.

Decision Motives (T1)

□ Difference in **importance**

- 'How important is it to you that the outcomes below happen should a fire threaten your area?' (9 items)
 - You survive the fire
 - Your children survive the fire
 - Other household members survive the fire
 - Potential visitors survive the fire
 - Pets survive the fire
 - Livestock survive the fire
 - House survives the fire
 - Contents survives the fire
 - Working equipment survives the fire



Slider: 1=not important at all, 25= extremely important,
0 = NA

Decision Motives (T1)

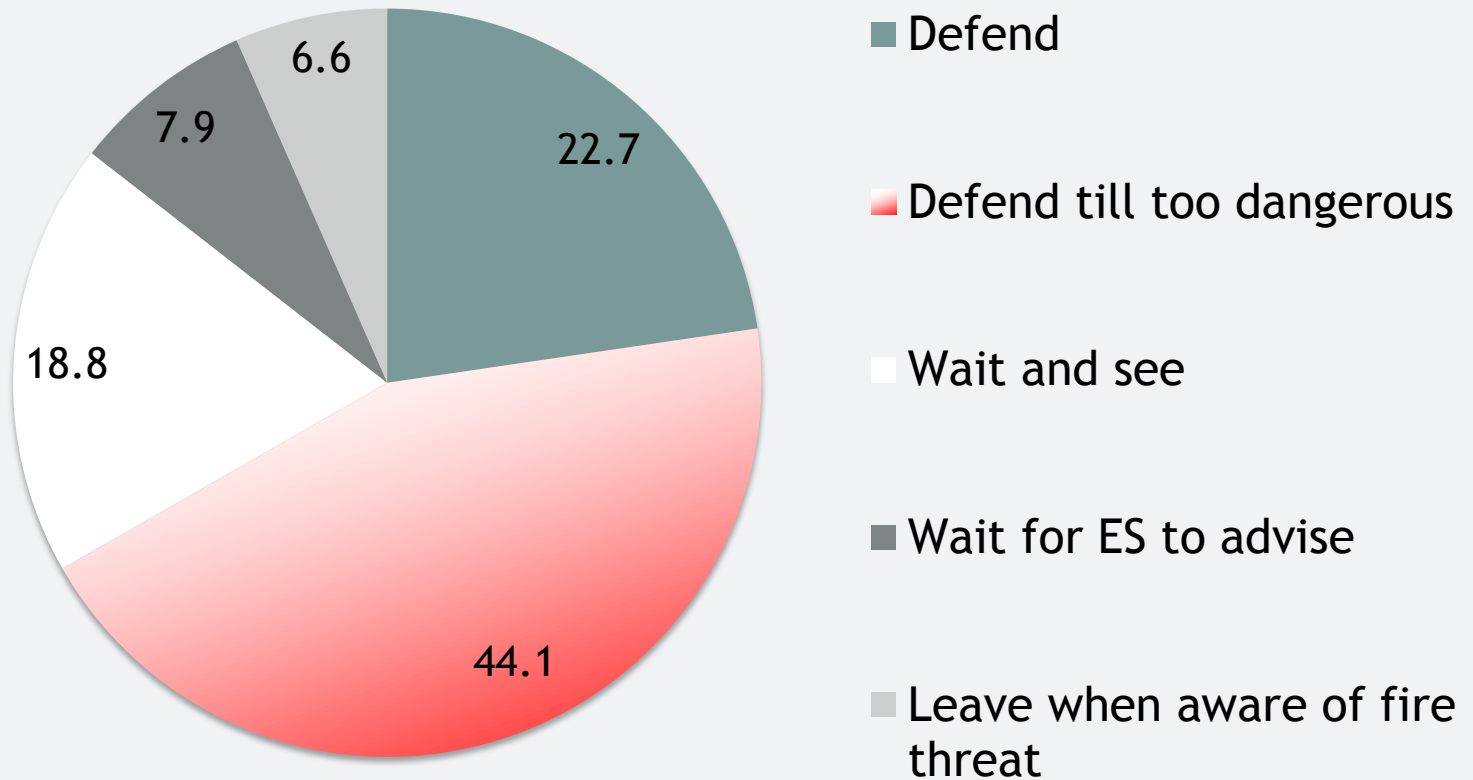
☐ Difference in **likelihood**

- How likely do you think it would be for [9 outcomes] to occur if you **choose to (try to) stay and defend your property** when a fire is threatening your community, town, or suburb, and the fire ends up threatening your property. (1= definitely not, 7=definitely, 0 =NA)
- How likely do you think it would be for [9 outcomes] to occur if you **choose to leave your property to evacuate** when a fire is threatening your community, town, or suburb, and the fire ends up threatening your property. (1= definitely not, 7=definitely, 0 =NA)

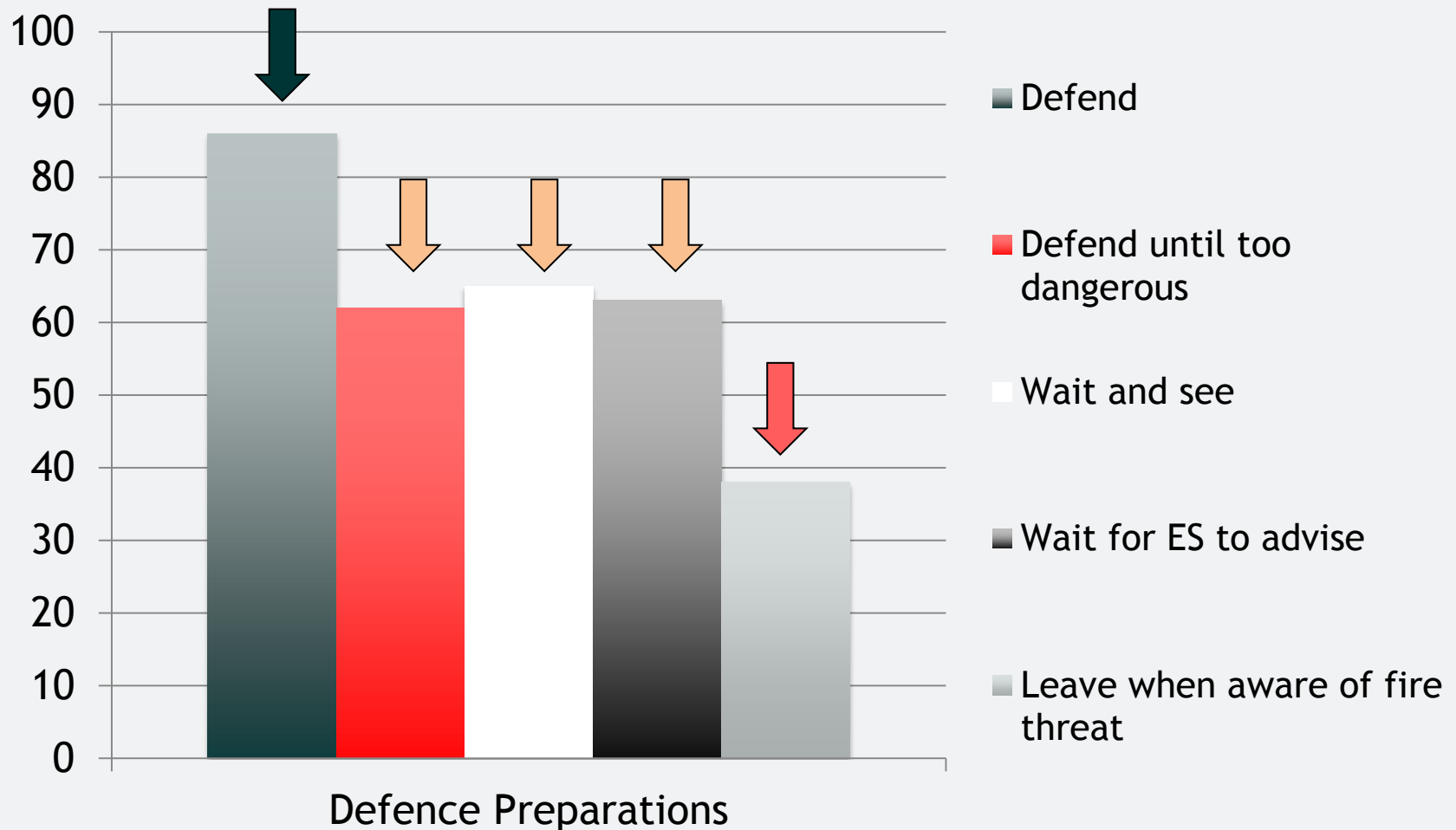
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Why do they postpone their defence versus evacuation decision?

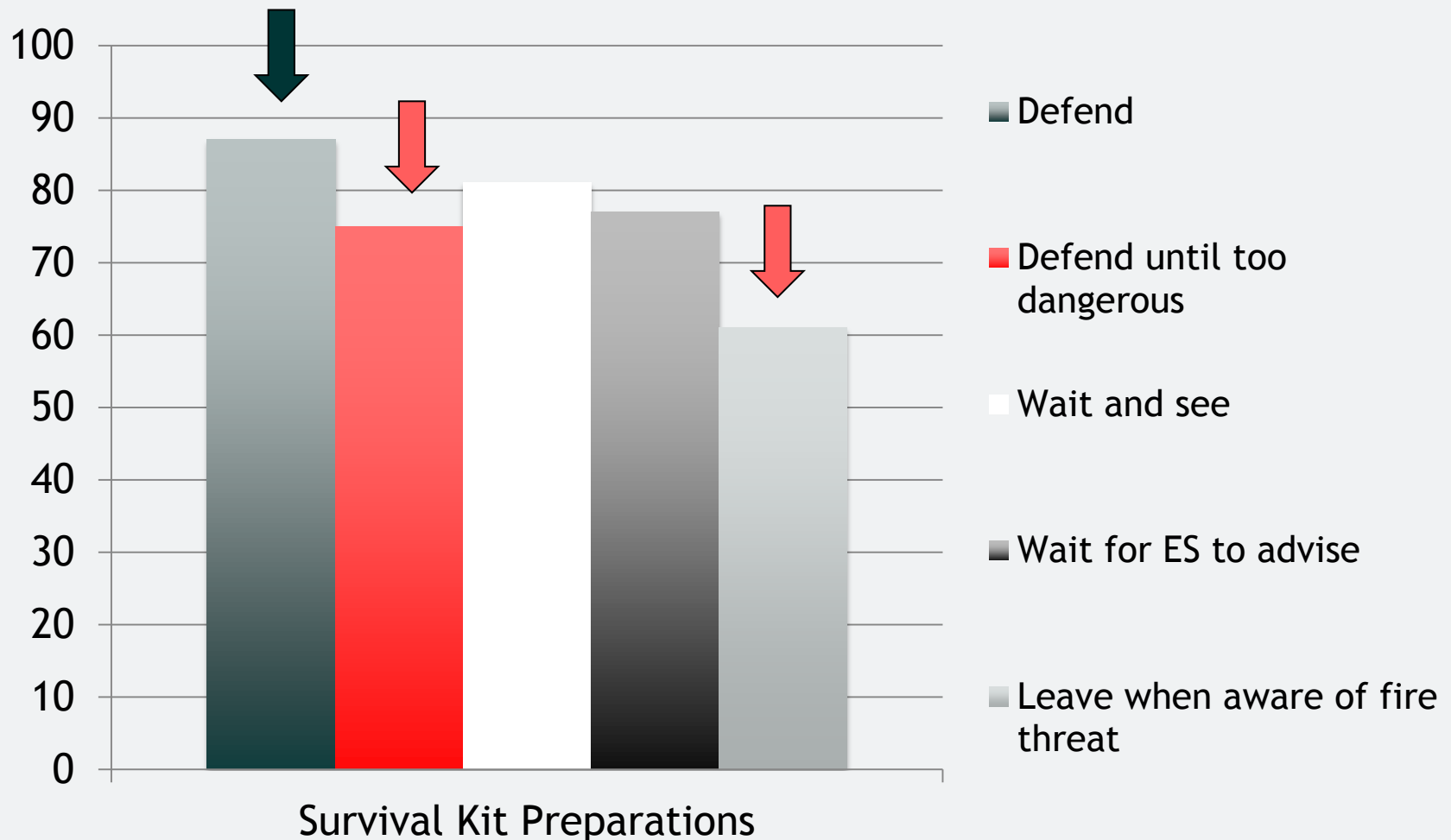
Intended Fire Responses



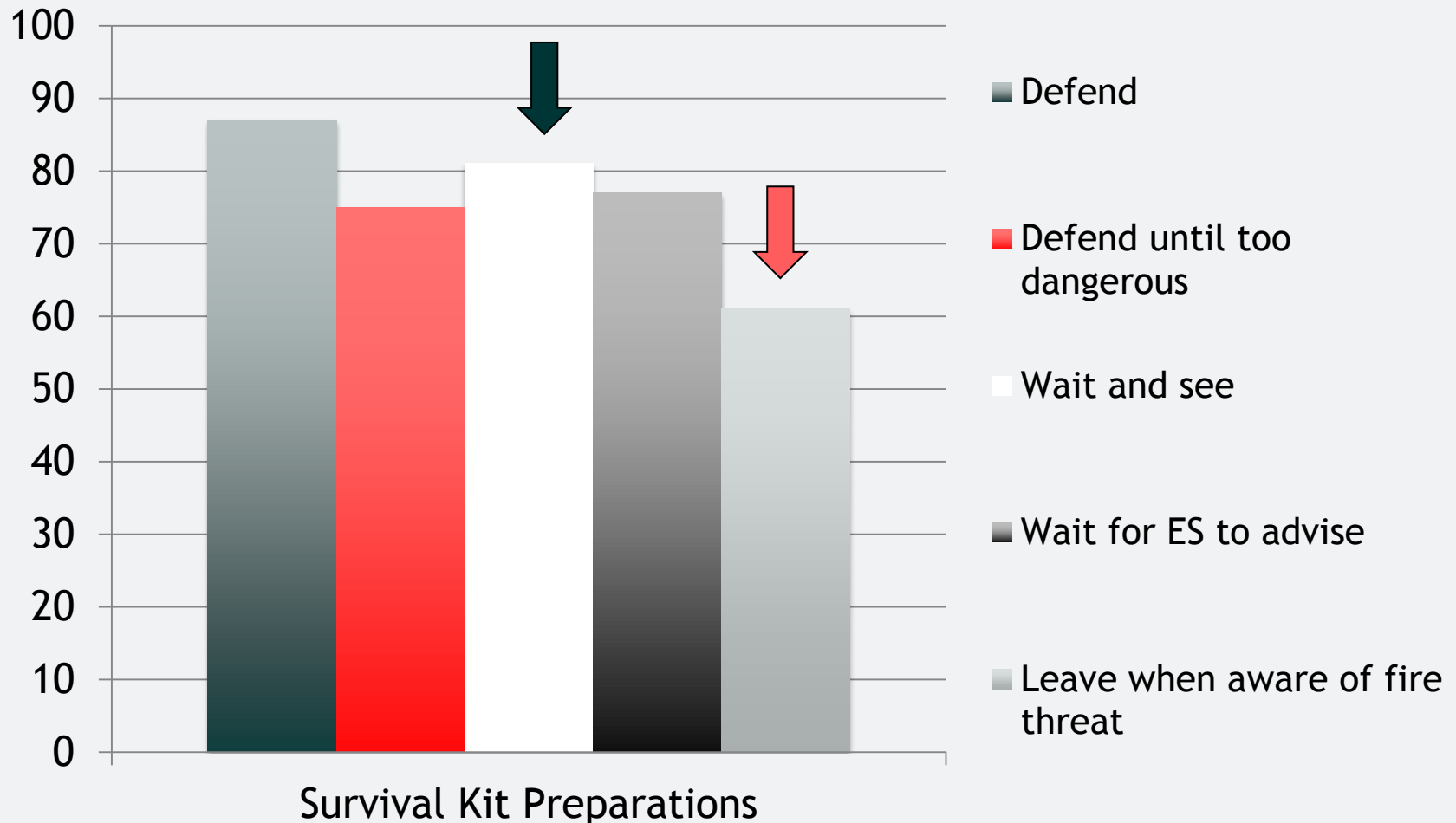
Differences in Defence Preparations



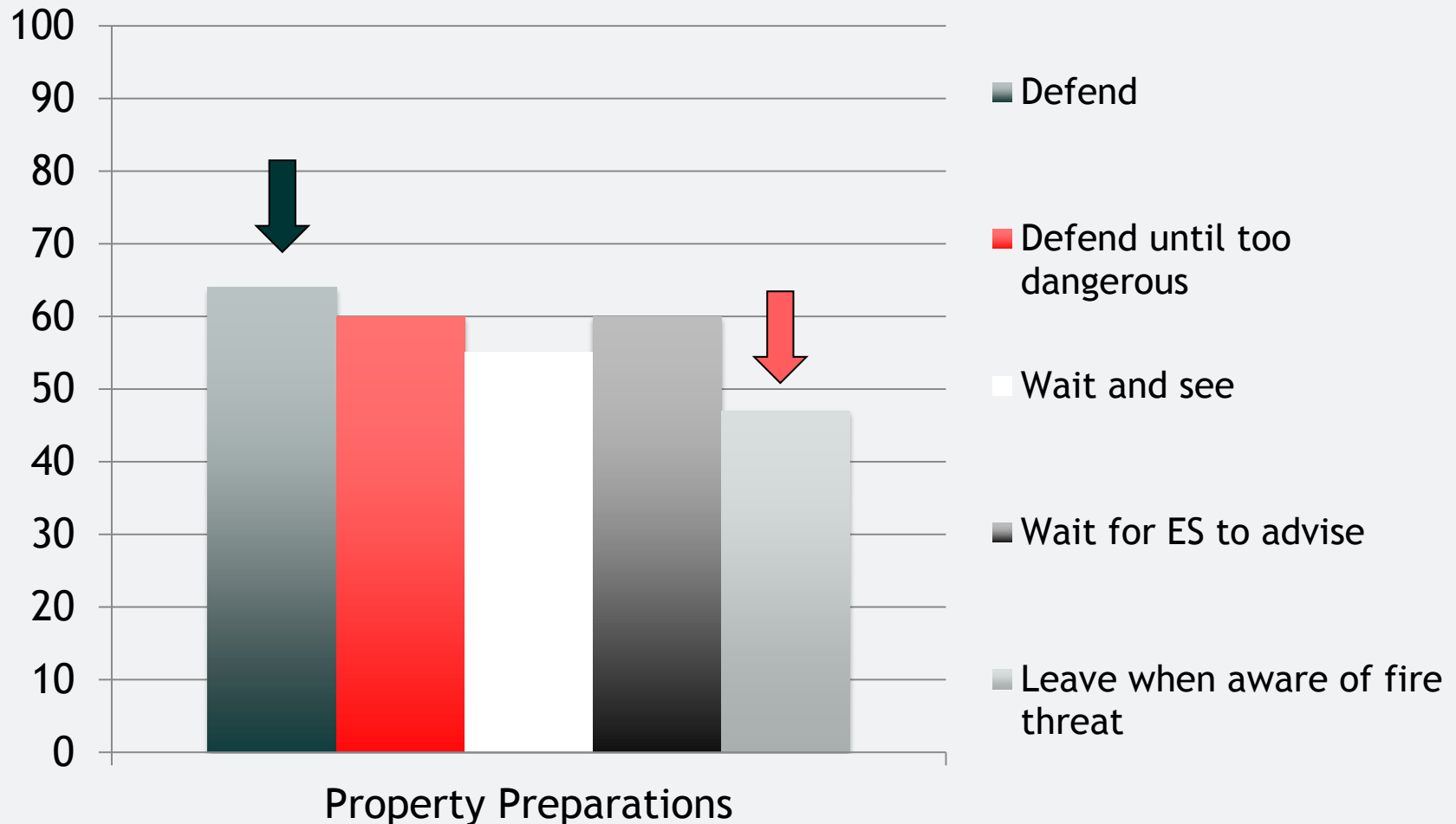
Differences in Survival Kit Preparations



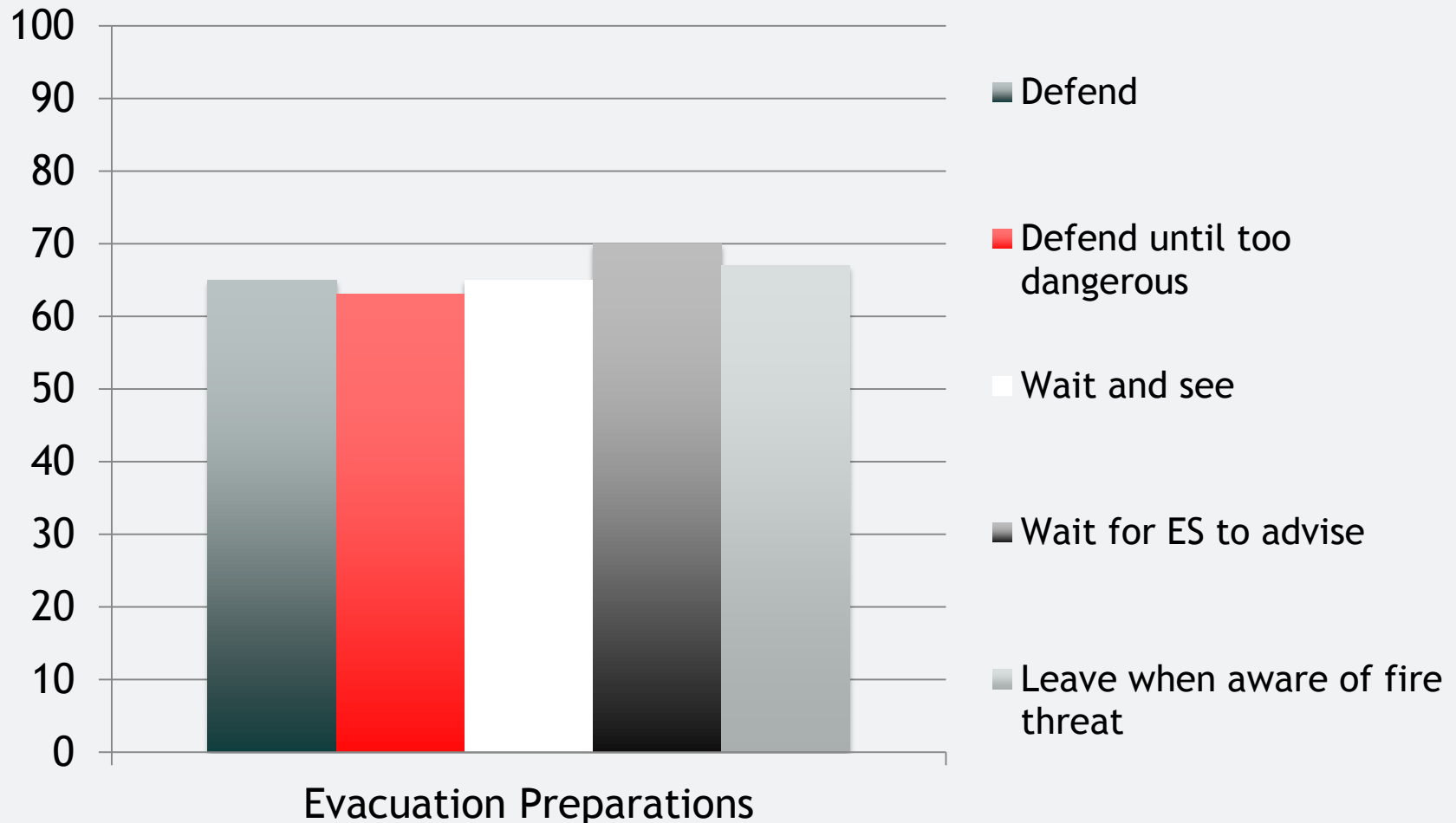
Differences in Survival Kit Preparations



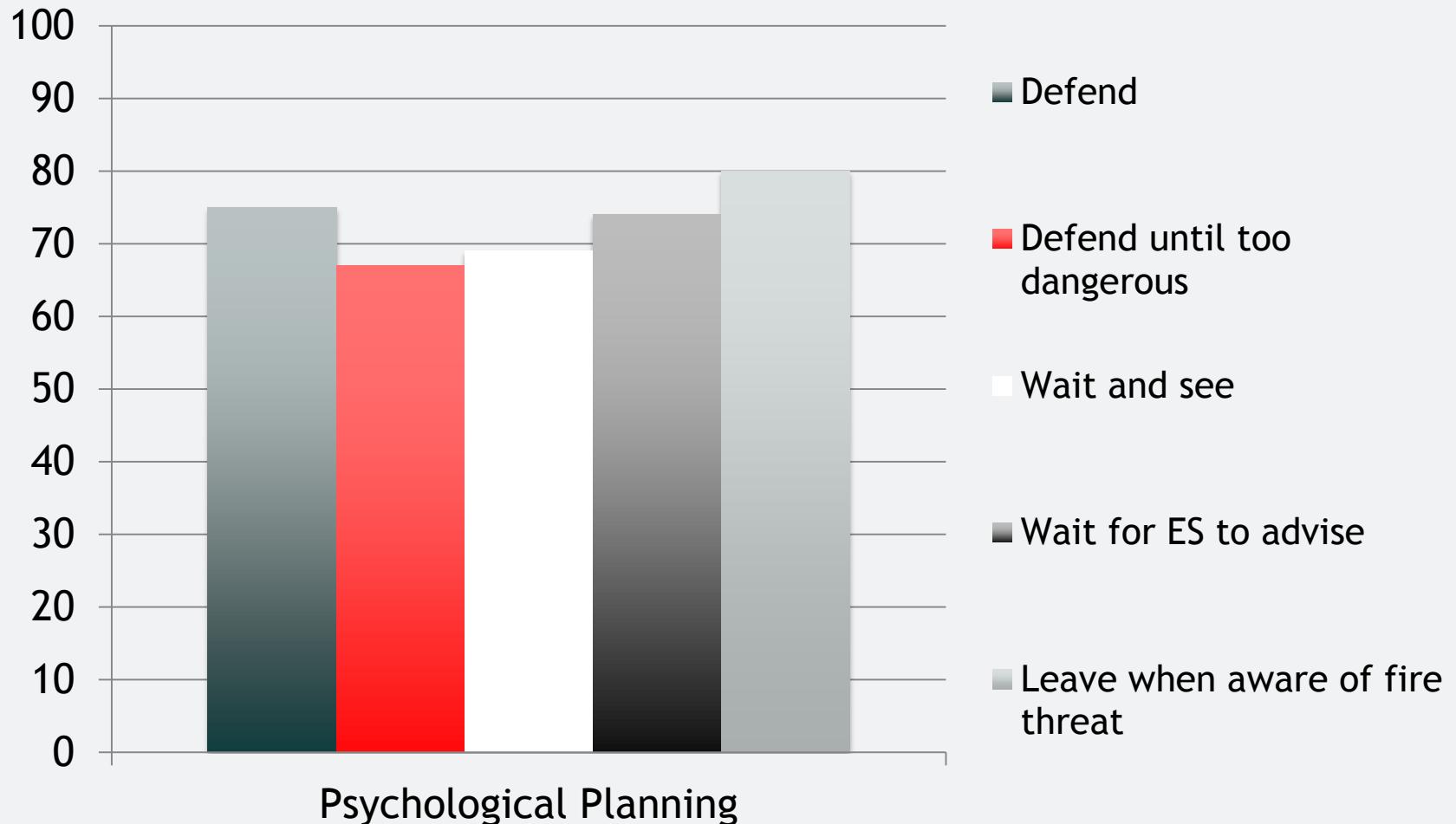
Differences in Property Preparations



Differences in Evacuation Preparations



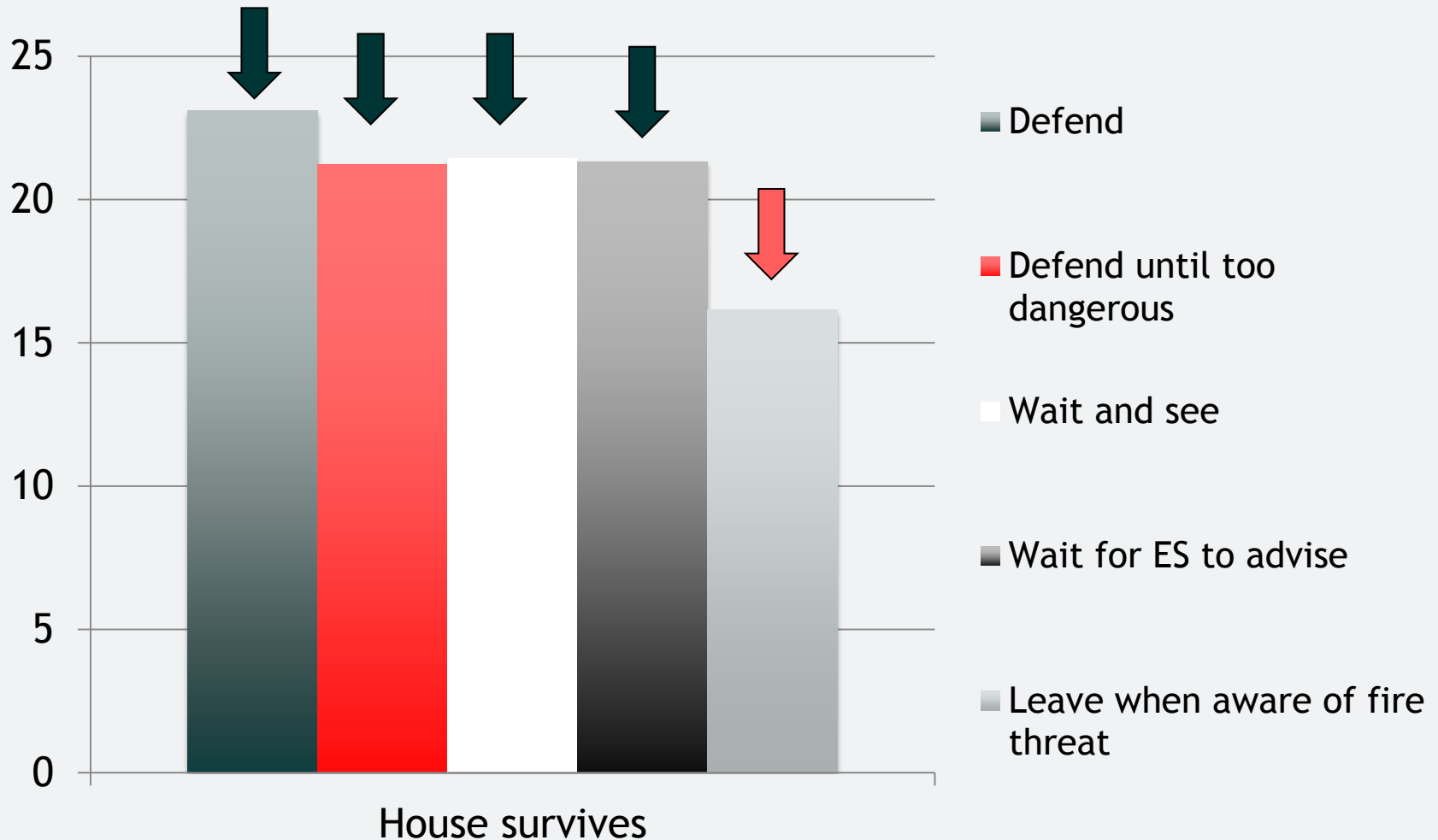
Differences in Psychological Planning



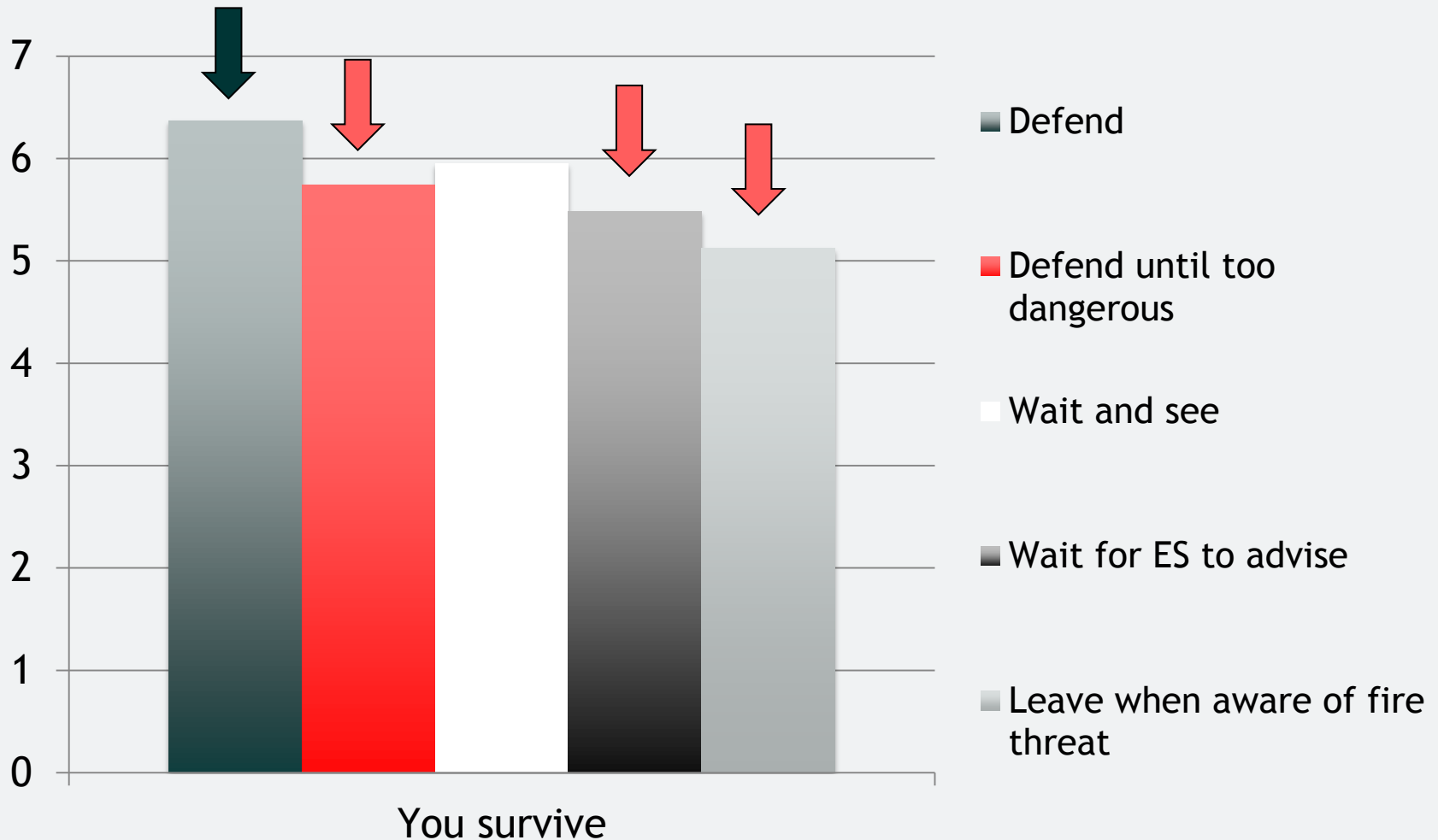
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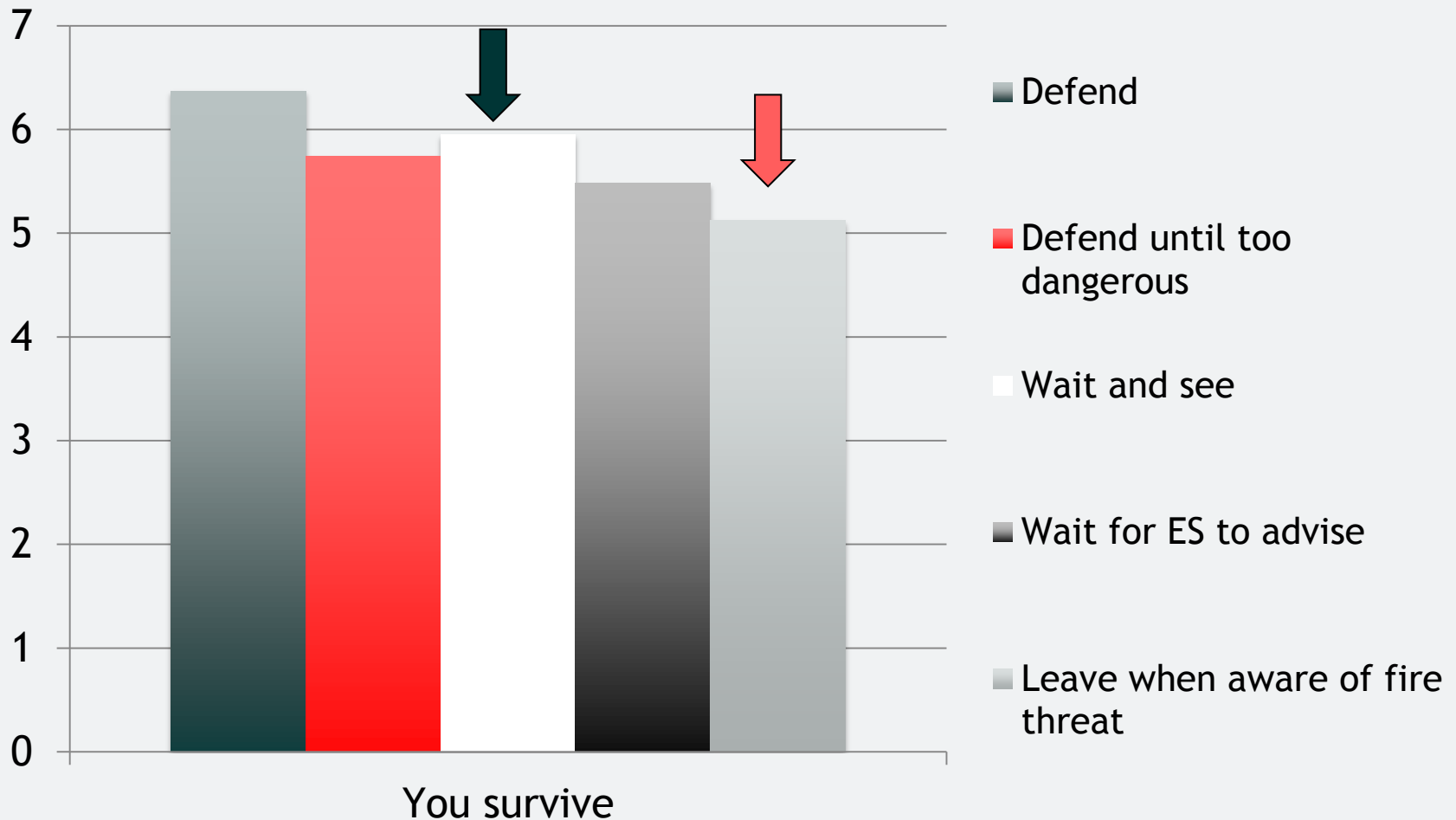
Differences in Outcome Importance



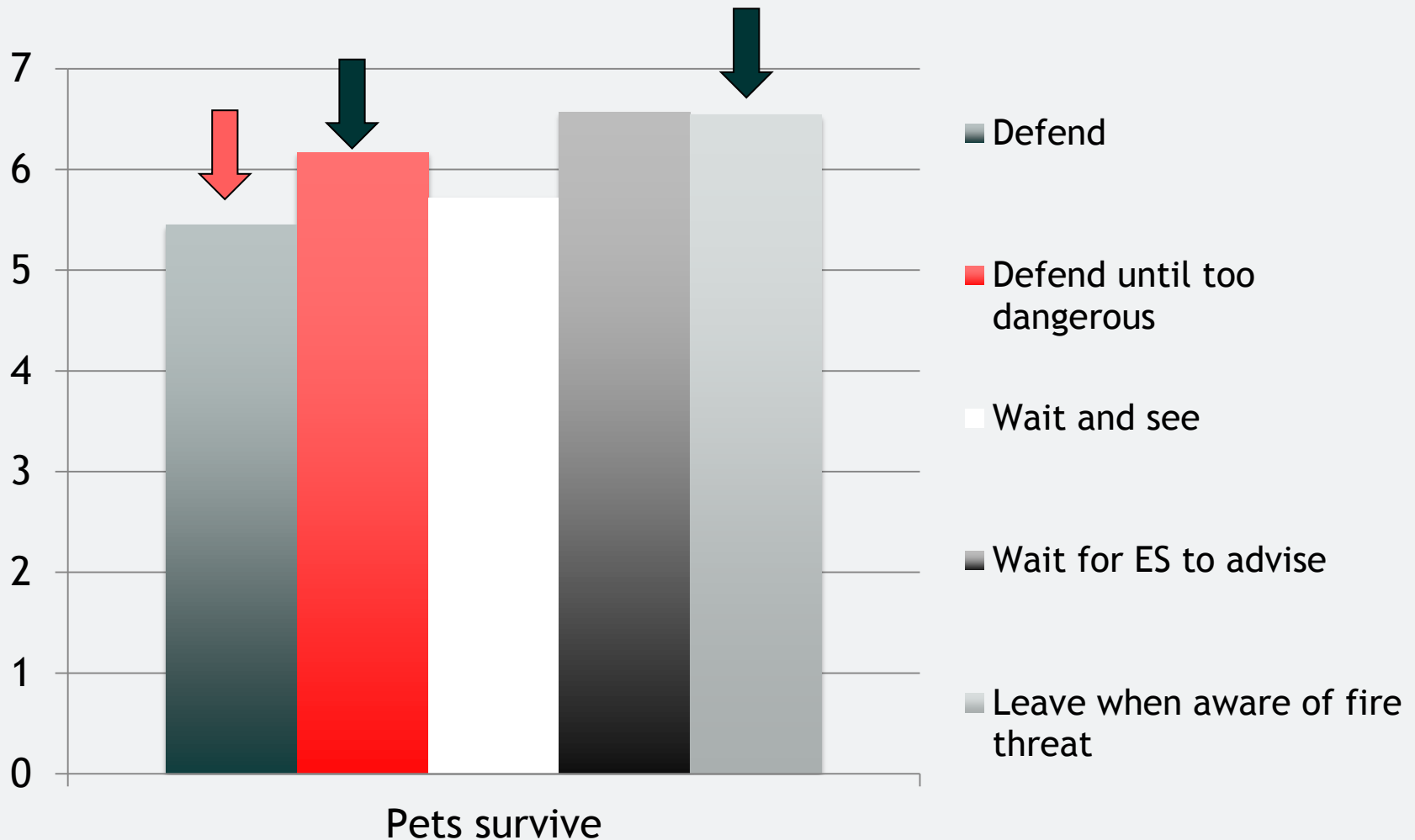
Differences in Outcome Likelihood (Defence)



Differences in Outcome Likelihood (Defence)



Differences in Outcome Likelihood (Evacuation)



Differences in Preparedness

- ❑ Those who are set on defending prepare better for defence than those who might defend, but are undecided.
- ❑ Preparation of a survival kit appears to be tied to defending, whereas agencies would prefer everyone to have a survival kit.
- ❑ Those who evacuate tend to prepare their property less, even though this could increase the chances of their house surviving.
- ❑ There are no differences in psychological planning or evacuation preparations, so those who are set on defending prepare as well for evacuation as those set on evacuating or those who are undecided.

Motivated by Outcomes

- ❑ Outcome importance only differs between groups on house surviving and content surviving.
- ❑ Most group differences lie in the perceived likelihood of achieving an outcome by defending (not evacuating).
- ❑ Generally speaking, those who plan to defend are more confident in their ability to achieve positive outcomes through defending than those who plan to evacuate, with the undecided group in between.
- ❑ Livestock appears to play no role in motivating fire responses.
- ❑ When it comes to achieving outcomes through evacuating, those who defend are less confident of pets surviving than those who defend until threatened, or those who evacuate.

**McNeill et al (Working paper)*

Fire Responses and Preparedness

- ❑ Undecided responders should prepare well for both options. They currently under-prepare for defending.
- ❑ In addition, they should determine triggers for their decision before the day of the fire (new study results).
- ❑ Focus on increasing property preparedness amongst those who intend to evacuate. Adjust perceived likelihood of house surviving when evacuating.
- ❑ Evaluate accuracy of perceived likelihood of achieving outcomes when defending, as these judgments appear to be a key driver of response decisions.

THANK YOU!



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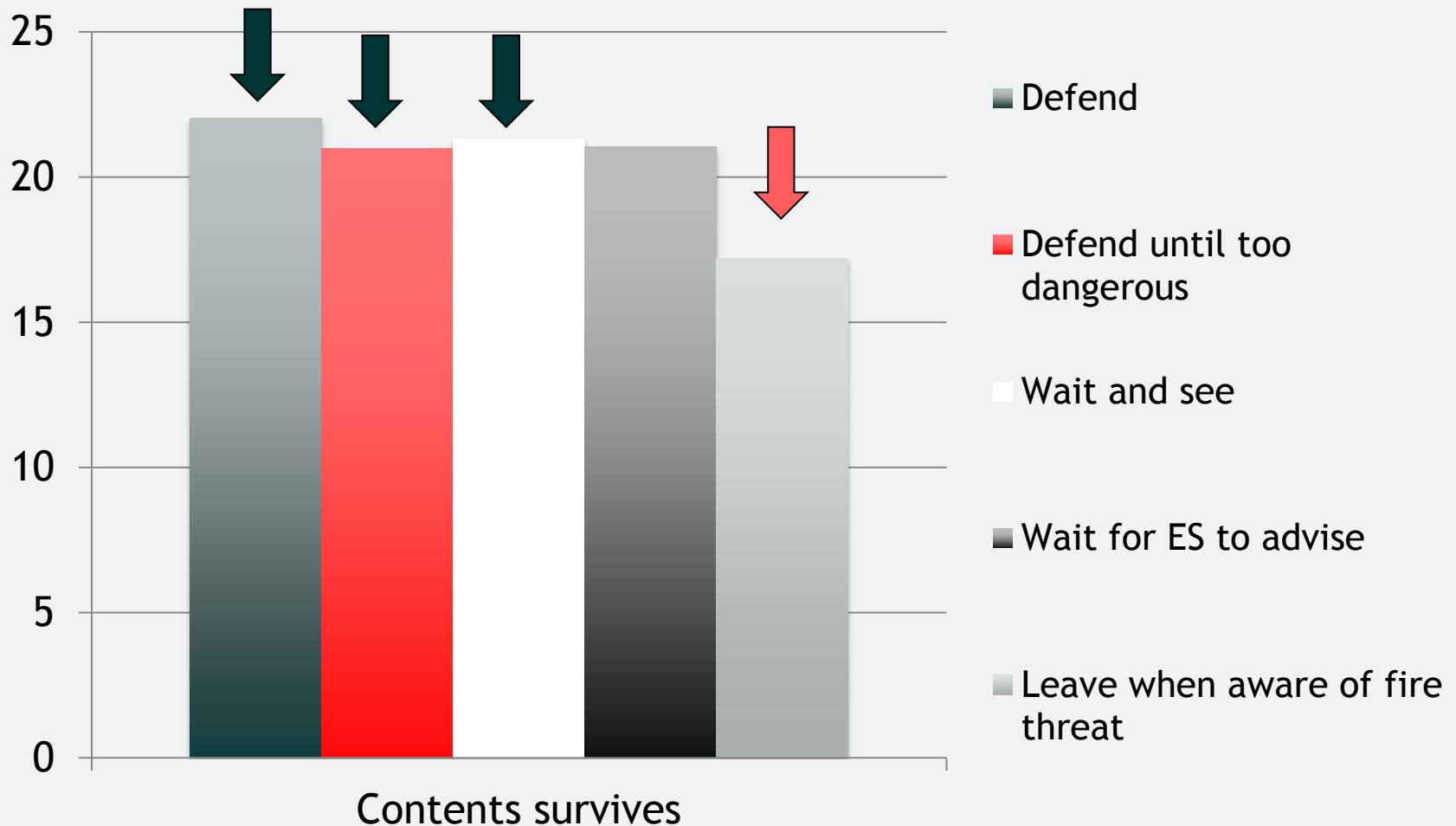
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RESULTS

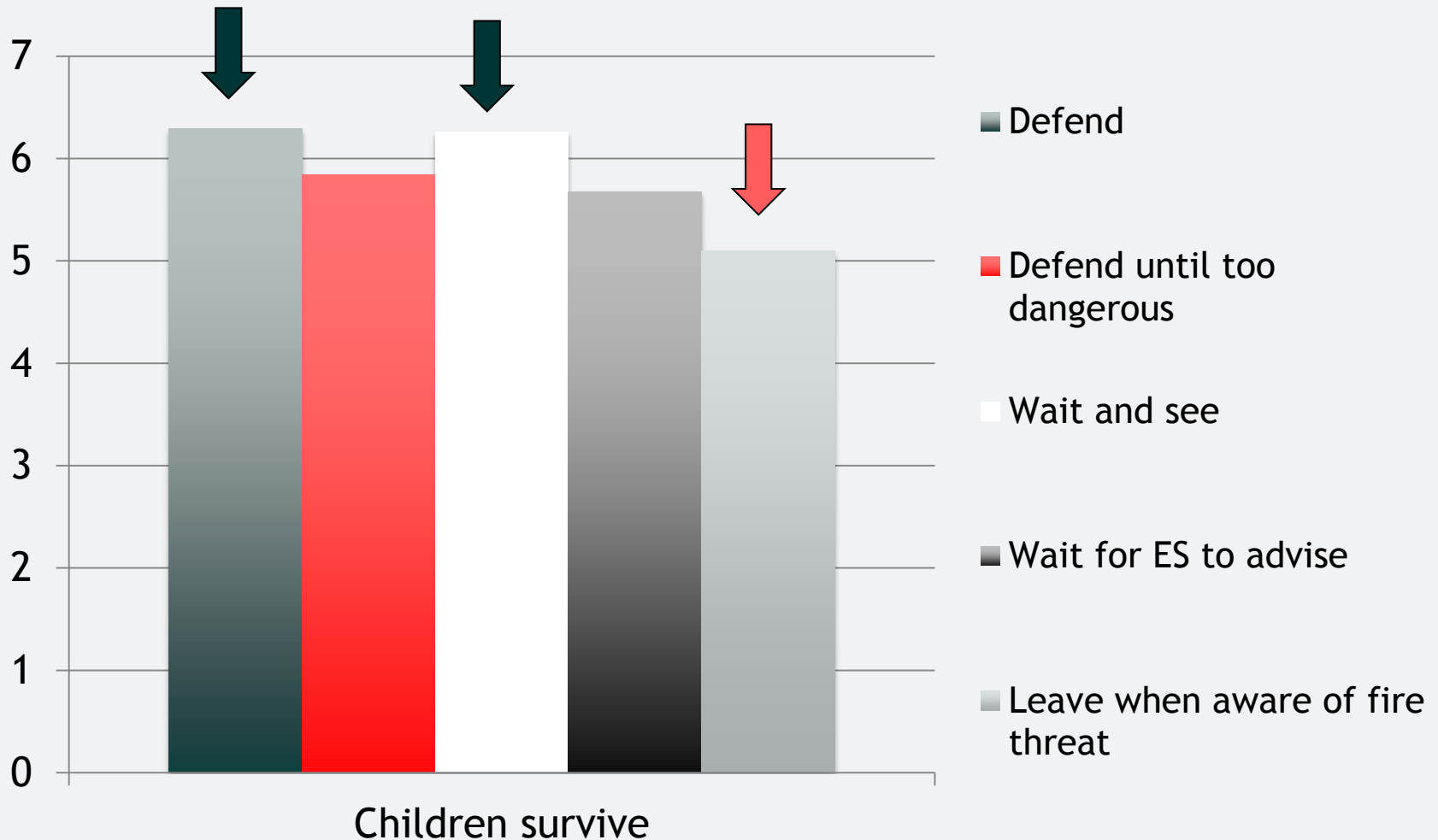


**McNeill et al (under review @ International Journal of Wildland Fire)*

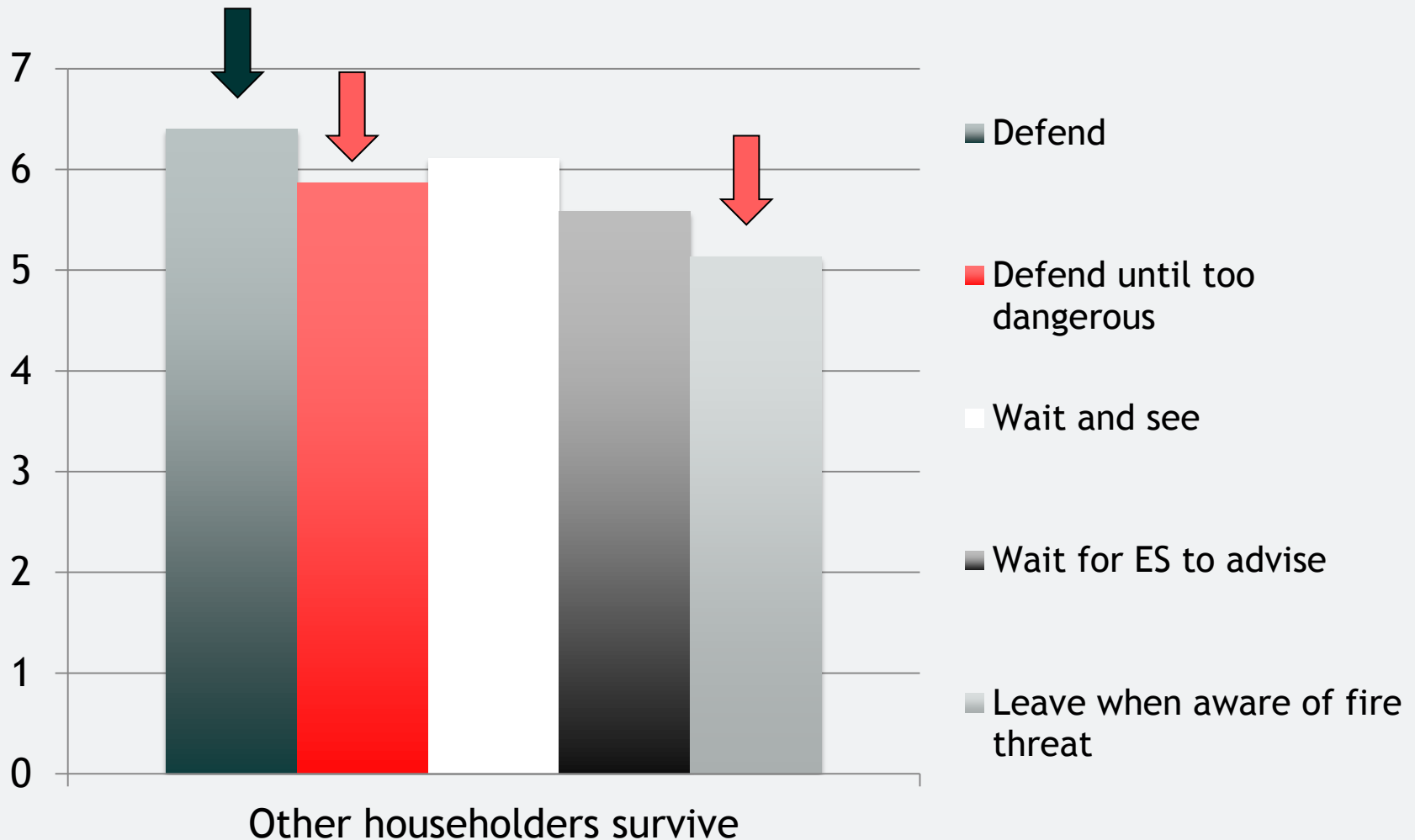
Differences in Outcome Importance



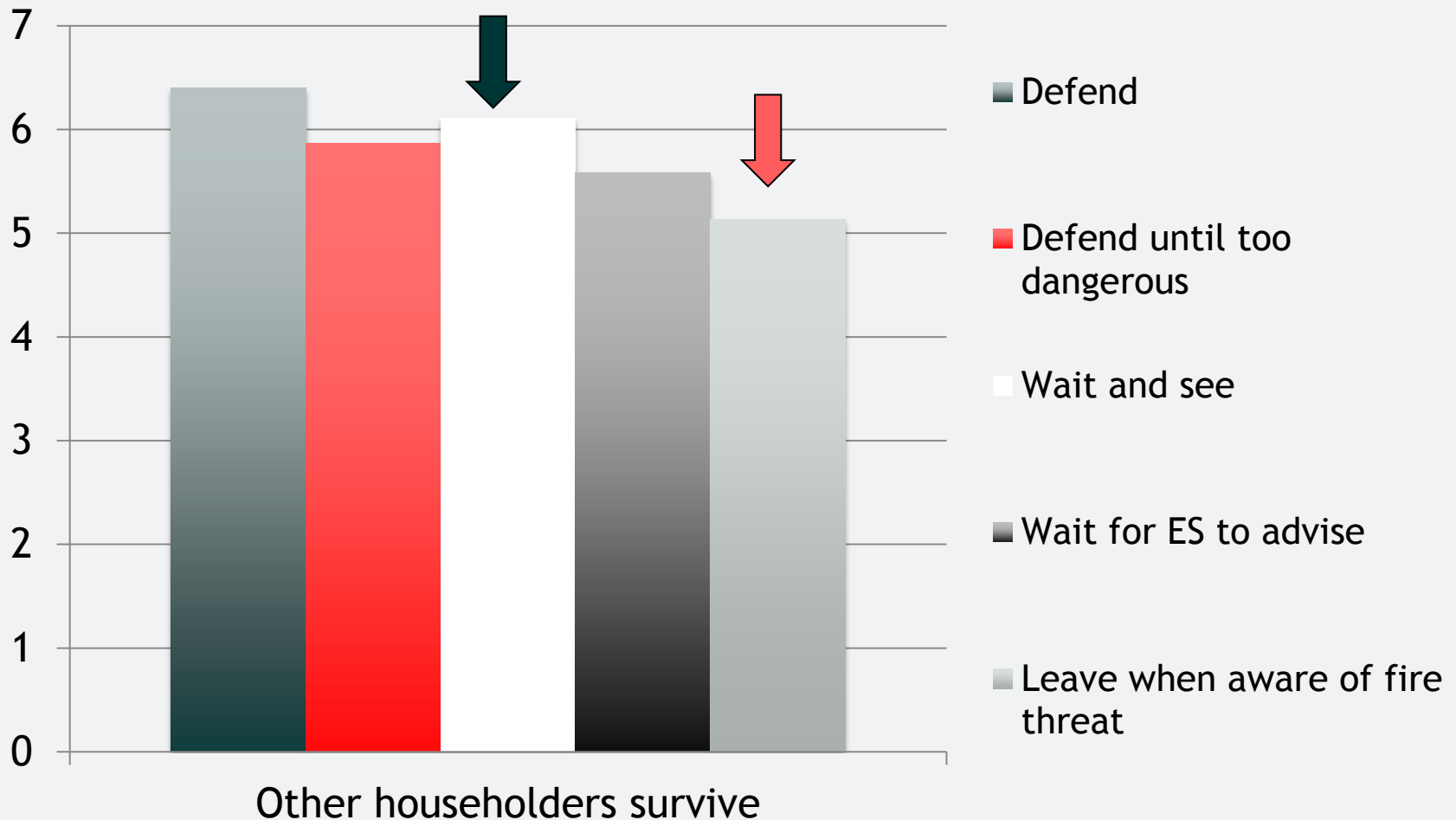
Differences in Outcome Likelihood (Defence)



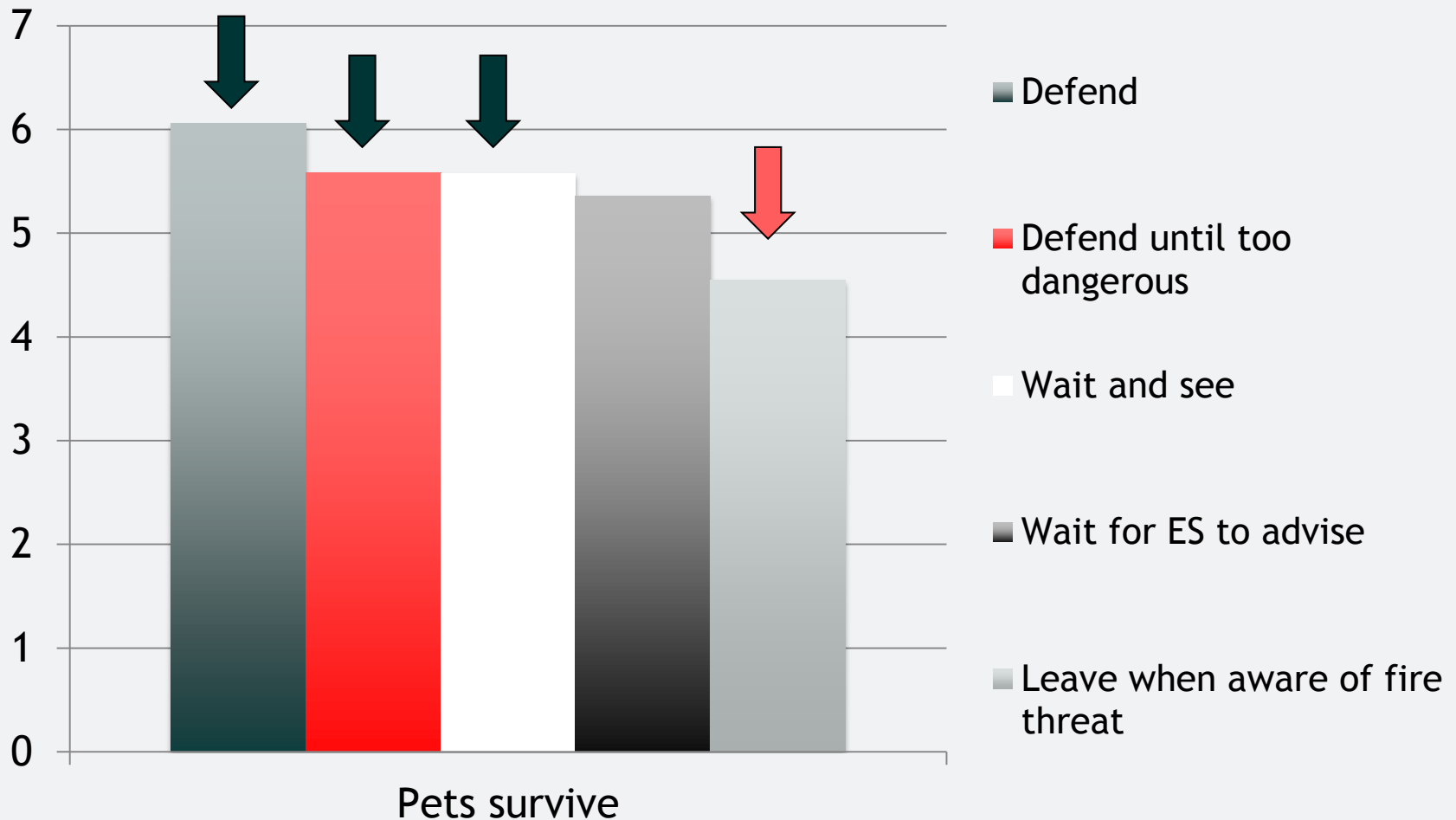
Differences in Outcome Likelihood (Defence)



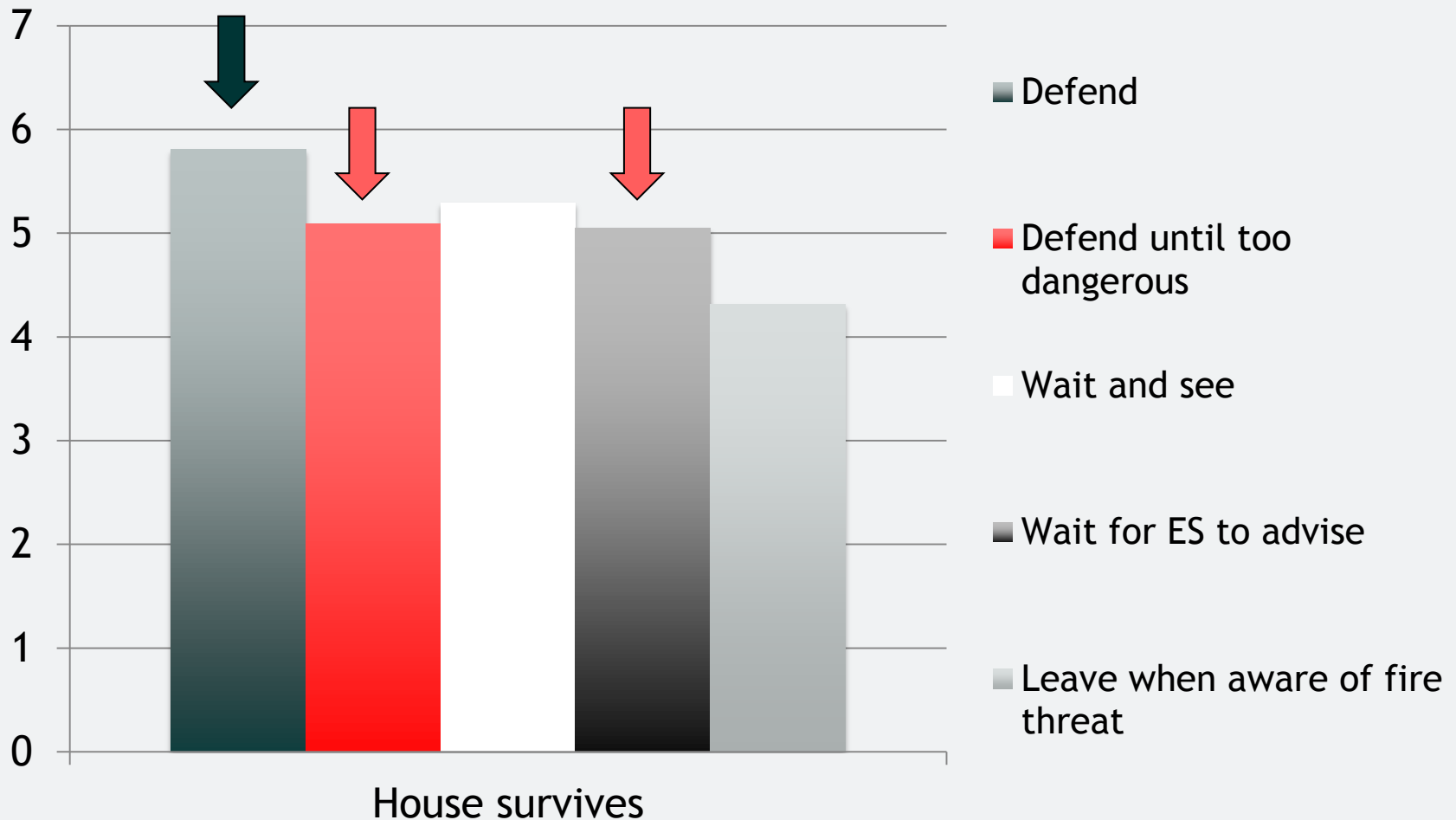
Differences in Outcome Likelihood (Defence)



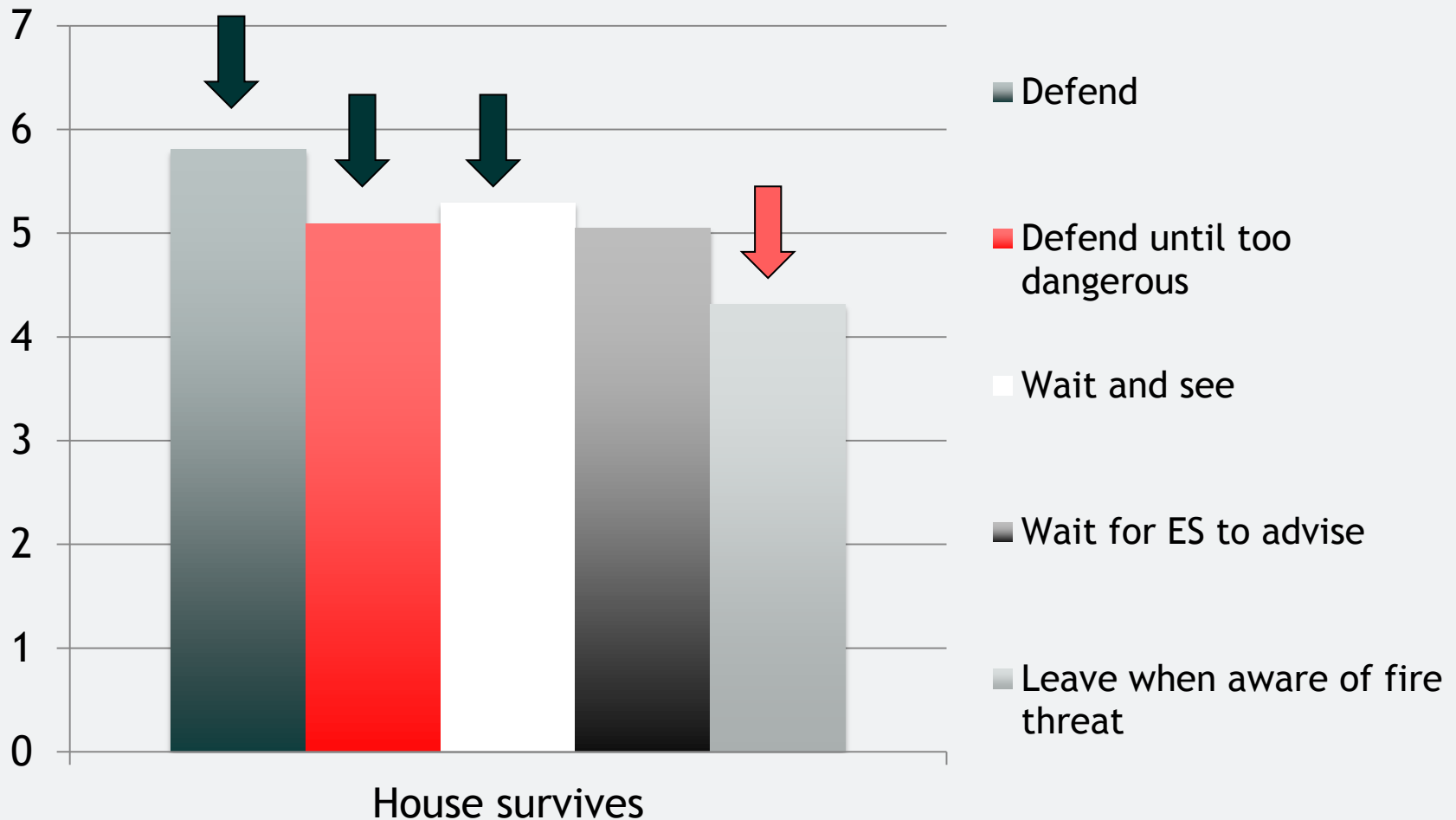
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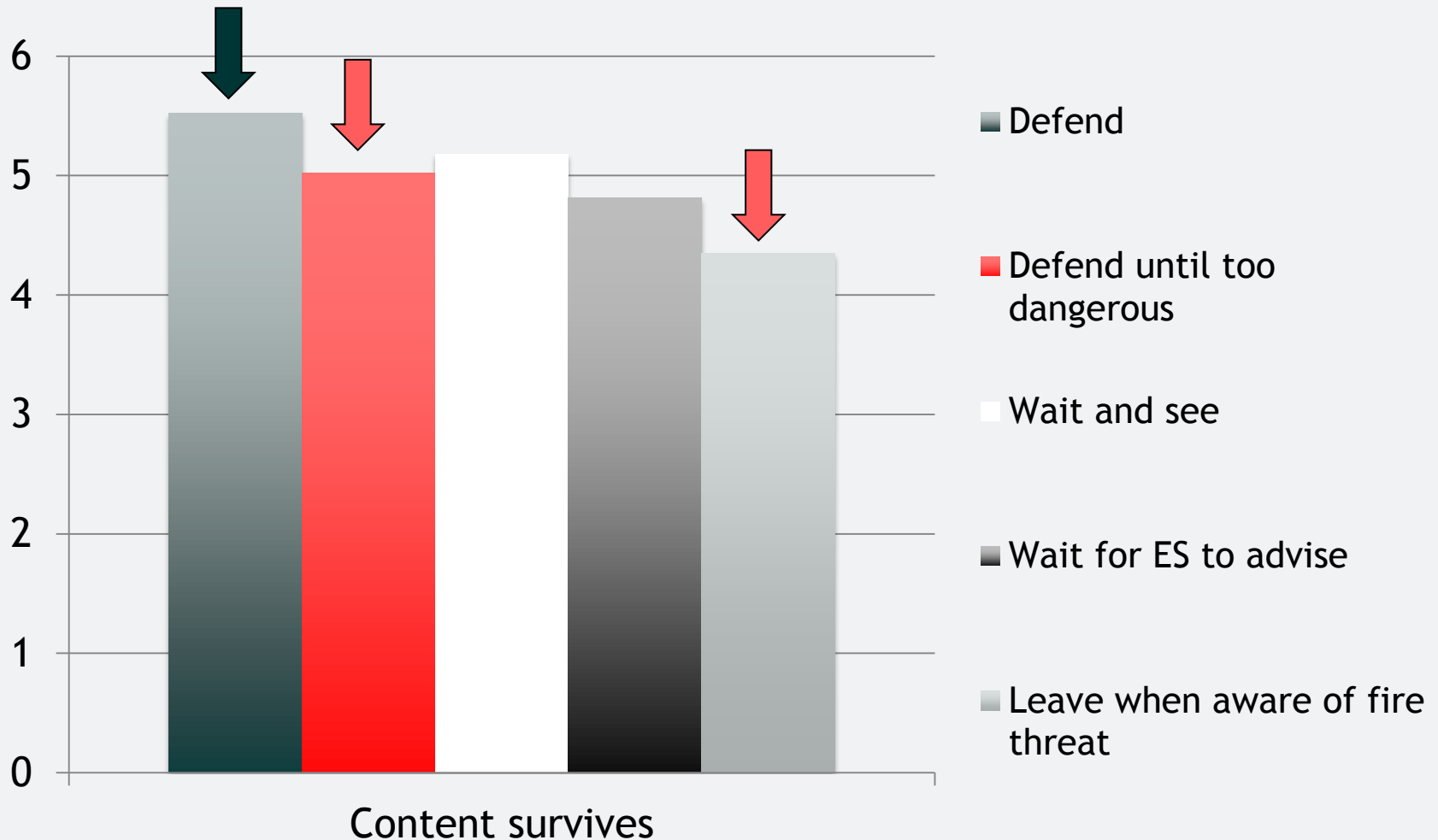
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