

January 2022

**/the
social
dilemma_**

IMPACT EVALUATION FINDINGS

TABLE OF CONTENTS



• Background & Methods	4
• Key Findings	12
• RQ1: Impact of TSD	23
Knowledge & Awareness	24
Attitudes & Beliefs	28
Efficacy & Behavior	37
• RQ2: TSD Viewer Responses	43

TABLE OF CONTENTS



• RQ3: Viewer Subgroup Outcomes	54
Sample Source	55
Campaign Participants	66
Parent Status	70
• RQ4: Mechanisms Underlying Impact	80
Afraid	81
Hopeful	89
Characters	95
• Qualitative Insights	103



BACKGROUND & METHODS

IMPACT OBJECTIVES



- Promote awareness of the harmful effects of “Big Tech’s” extractive business model and the promise of humane design
- Shift attitudes around how tech platforms undermine democracy, human rights, and mental health in the pursuit of profit, and how these technologies can be better designed, regulated, and used
- Foster action, including public pressure on technology platforms and policymakers to increase regulation and accountability

RESEARCH QUESTIONS

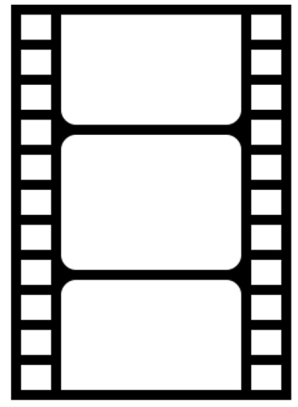


- RQ1. What is the impact of The Social Dilemma (TSD) on viewers' knowledge, attitudes, and behavior?
- RQ2. How do viewers respond to TSD?
- RQ3. Do certain subgroups of viewers have more positive outcomes?
- RQ4. What are the mechanisms underlying TSD's impact?

SURVEY METHODS



- Survey data were collected between July 16 and September 8, 2021 (Total US N = 3881).
- Qualtrics Panels recruited US-based Netflix subscribers, ages 18 to 60 (N = 2518).
- Exposure Labs and the Center for Humane Technology promoted links to an identical survey via newsletters and social media, U.S.-based Netflix subscribers, ages 18-60 (N = 1363).
- We used Propensity Score Matching (PSM) to adjust for pre-existing differences between viewers and non-viewers.
- The survey instrument contained both closed-ended (e.g., multiple choice for knowledge, attitudes, perceived impact) and open-response questions (e.g., reasons for watching, negative impacts of technology).



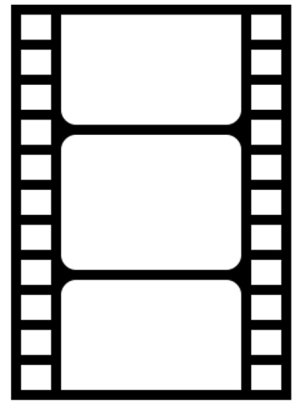
PROPENSITY SCORE MATCHING (PSM)

Who is likely to watch?

Selection bias refers to the tendency of those who share pre-existing characteristics to seek out specific types of content, such as social issue documentaries

Differences in outcomes between viewers and non-viewers may reflect pre-existing differences rather than impact of exposure

PSM controls for selection bias by matching each viewer with a non-viewer with a similar propensity score, reflecting equal likelihood of exposure

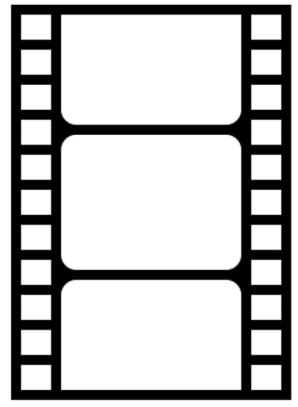


PROPENSITY SCORE MATCHING (PSM)

Who is likely to watch?

Viewers were matched to non-viewers on a composite of the following propensity factors:

Demographics	White, non-Hispanic 18 to 34 years old Bachelor's degree or above Earns \$50,000 or more annually
Ideology/Politics	Politically liberal to very liberal Party Preference: Democratic or Republican
Viewing Habits	Watch documentaries that address social issues once a month or more frequently Reasons for watching: • To learn about social issues • Find films about social issues interesting/compelling Believe a film or documentary can have a moderate or large impact (6-items averaged) Have heard concerns associated with social media/search technologies (3-items averaged)
Social Media	Have 5+ Social Media accounts Have recognized negative effects of using their Social Media accounts sometimes or more Believe technology contributes more than somewhat to social problems (4-items averaged)



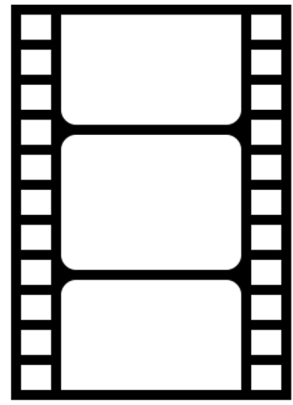
PROPENSITY SCORE MATCHING (PSM)

Who is likely to watch?

Due to substantial differences between the Qualtrics and ELabs respondents on propensity indicators and other demographic factors, only Qualtrics data were tested for propensity matches (N = 2518)

- 1015 viewers
- 1503 non-viewers

The PSM method identified 502 matched pairs of viewers and non-viewers



SAMPLE BREAKDOWN

Recruitment Source	Matched Viewers (RQ1)	Matched Non-Viewers (RQ1)	All US Viewers (RQs 2, 3, 4)	All US Non-Viewers
Qualtrics (N = 2518)	502	502	1015	1503
Exposure Labs (N = 1363)	---	---	1302	61
Total	502	502	2317	1564
	Total PSM Sample N = 1004		Total US Respondents N = 3881	



KEY FINDINGS

KEY FINDINGS



RQ1. What is the impact of TSD on knowledge, attitudes, and behavior?

Compared to matched non-viewers, TSD viewers:

- Were more knowledgeable about attention extraction, better able to identify persuasive design techniques, and were more likely to know companies monetize attention through targeted advertising
- Were more likely to believe social media and search technologies have a “mostly positive” effect overall, but a negative impact on mental health

KEY FINDINGS



RQ1. What is the impact of TSD on knowledge, attitudes, and behavior?

Compared to matched non-viewers, TSD viewers:

- Had greater support for design and regulatory changes, but believed that regulation would not address concerns
- Had greater self-efficacy in their homes and communities, and were more likely to place limits on their smartphone use, discuss social media with others
- Were more likely to take civic engagement actions, including sharing a personal story or donating

KEY FINDINGS



RQ2. How do viewers respond to TSD?

- Most viewers watched TSD several months prior, and were recommended by Netflix or friends/family
- Most viewers perceived the impact of TSD to be positive, but more so for personal than societal impacts
- Nine out of ten viewers took at least one campaign action
- Viewers were most likely to experience negative emotions like sad, angry, disgusted, or afraid
- Relatively few viewers felt the fictional characters effectively conveyed the problem

KEY FINDINGS



RQ3. Do certain subgroups of viewers have more positive outcomes?

Viewers recruited from Exposure Labs:

- Had stronger outcomes on all but a few variables

Viewers recruited from Qualtrics:

- Were more likely to feel hopeful
- Were more likely to take several specific civic engagement actions and rated TSD more successful at showing societal impacts

KEY FINDINGS



RQ3. Do certain subgroups of viewers have more positive outcomes?

Compared to those who took 2 or fewer campaign actions, viewers who took 3 or more:

- Were less knowledgeable about persuasive design techniques
- Had greater support for platform design changes and regulation
- Rated TSD more successful at showing personal and societal impacts

KEY FINDINGS



RQ3. Do certain subgroups of viewers have more positive outcomes?

Compared to non-parents, viewers with children under 18:

- Were less knowledgeable about how tech companies monetize user attention and persuasive design techniques
- Were more likely to say social media has “mostly positive” effects
- Took fewer individual technology restrictions but more civic engagement actions
- Rated TSD more successful at showing personal and societal impacts

KEY FINDINGS



RQ4. What are the mechanisms underlying TSD's impact?

Viewers who felt afraid:

- Were more knowledgeable about how tech companies monetize user attention and persuasive design techniques and more likely to say social media has “mostly negative” effects
- Had greater support for design changes and regulatory efforts, took more individual technology restriction actions, and rated TSD more successful at showing personal impacts

KEY FINDINGS



RQ4. What are the mechanisms underlying TSD's impact?

Viewers who felt hopeful:

- Were less knowledgeable about how tech companies monetize user attention and persuasive design techniques and more likely to say social media has “mostly positive” effects, and took fewer individual technology restriction actions
- However, they took more civic engagement actions, and rated TSD more successful at showing both personal and societal impacts

KEY FINDINGS



RQ4. What are the mechanisms underlying TSD's impact?

- Viewers who felt real interviewees were most effective were more knowledgeable about how tech companies monetize user attention and persuasive design techniques, more likely to say social media has “mostly negative” effects, held social media more responsible for Jan 6, were more likely to feel afraid, were more likely to support platform design changes, and took more individual technology restriction actions
- However, viewers who felt fictional characters were most effective felt more hopeful and rated TSD more successful at showing personal impacts

KEY FINDINGS



Qualitative insights:

- Survey respondents listed a variety of reasons for watching social issue films, including a desire to learn about social issues from different points of view.
- They identified several negative impacts of technology and social media, including the spread of misinformation and reduced social skills.
- Viewers praised TSD for illustrating how intentional design features contribute to these problems.



RQ1. IMPACT ON KNOWLEDGE, ATTITUDES & BEHAVIOR

KNOWLEDGE & AWARENESS

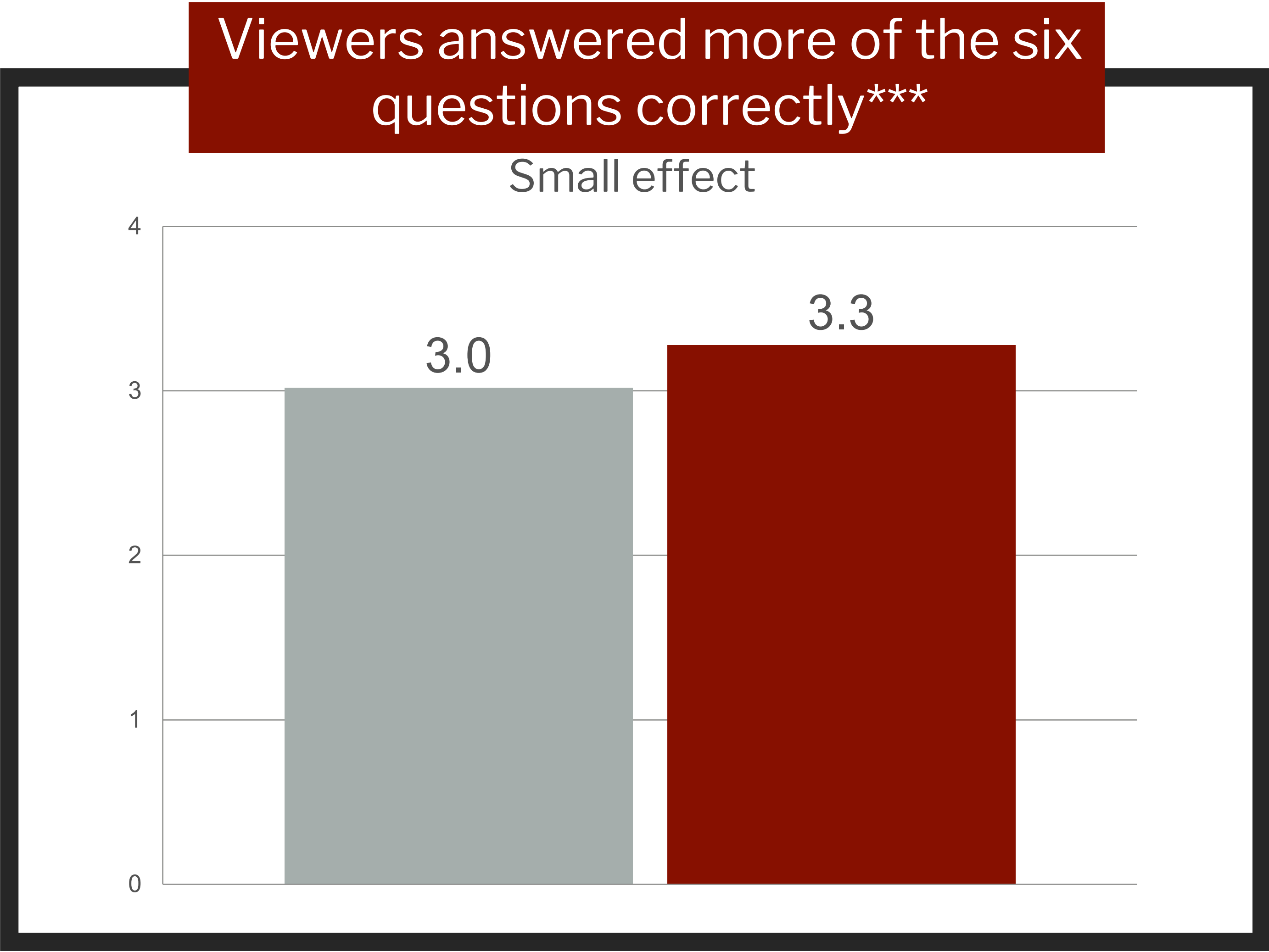


Hypothesized impacts:
Increased knowledge and awareness around the basic principles of attention extraction and surveillance capitalism

Significant impacts:

- Viewers answered more questions correctly
- Viewers were better able to identify three examples of persuasive design techniques
- Viewers were more likely to know that companies monetize attention through targeted advertising

KNOWLEDGE AND AWARENESS

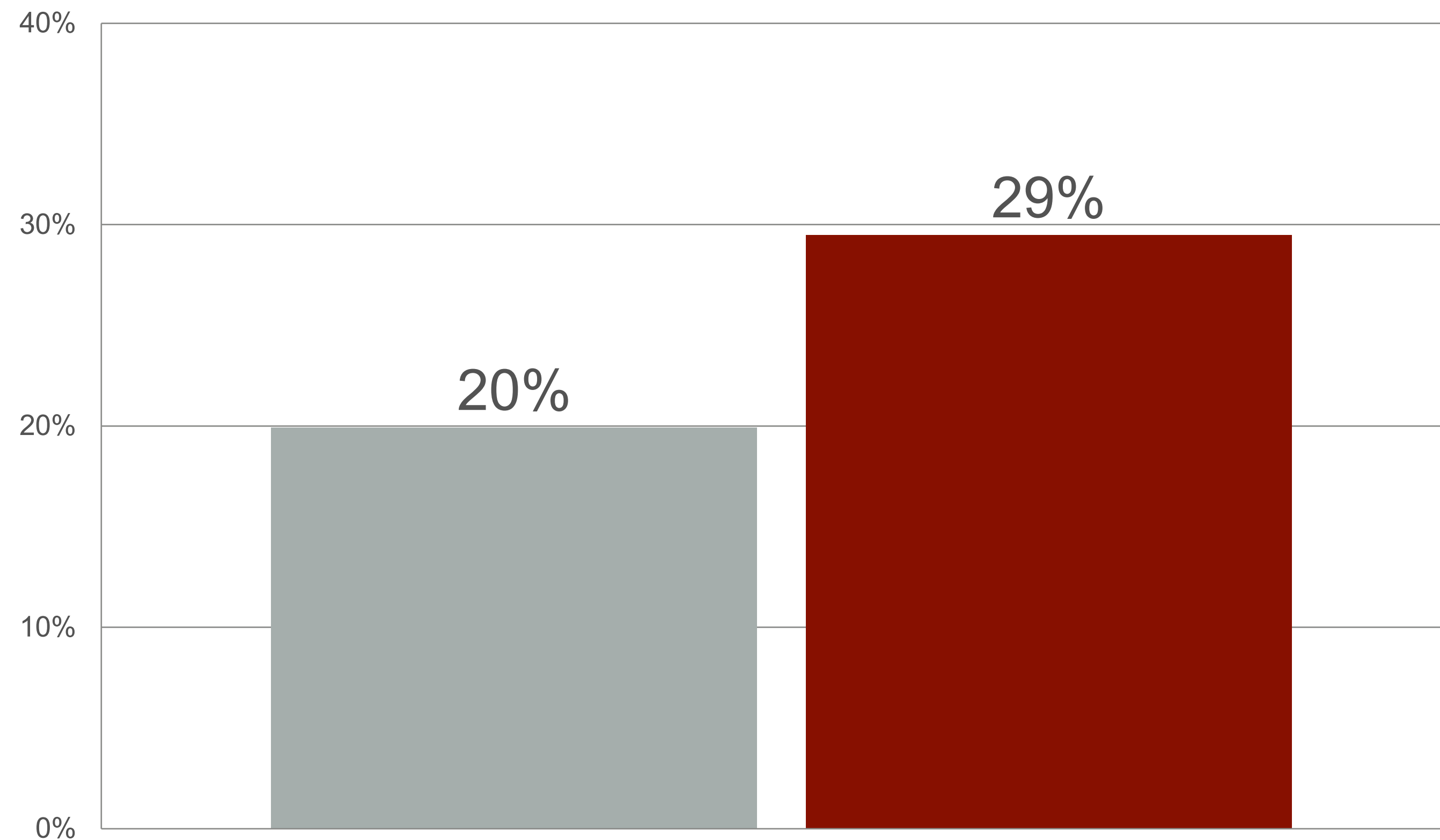


* p<.05; **p<.01; ***p<.001

KNOWLEDGE AND AWARENESS

Viewers were more likely to identify examples of persuasive design techniques***

Small effect



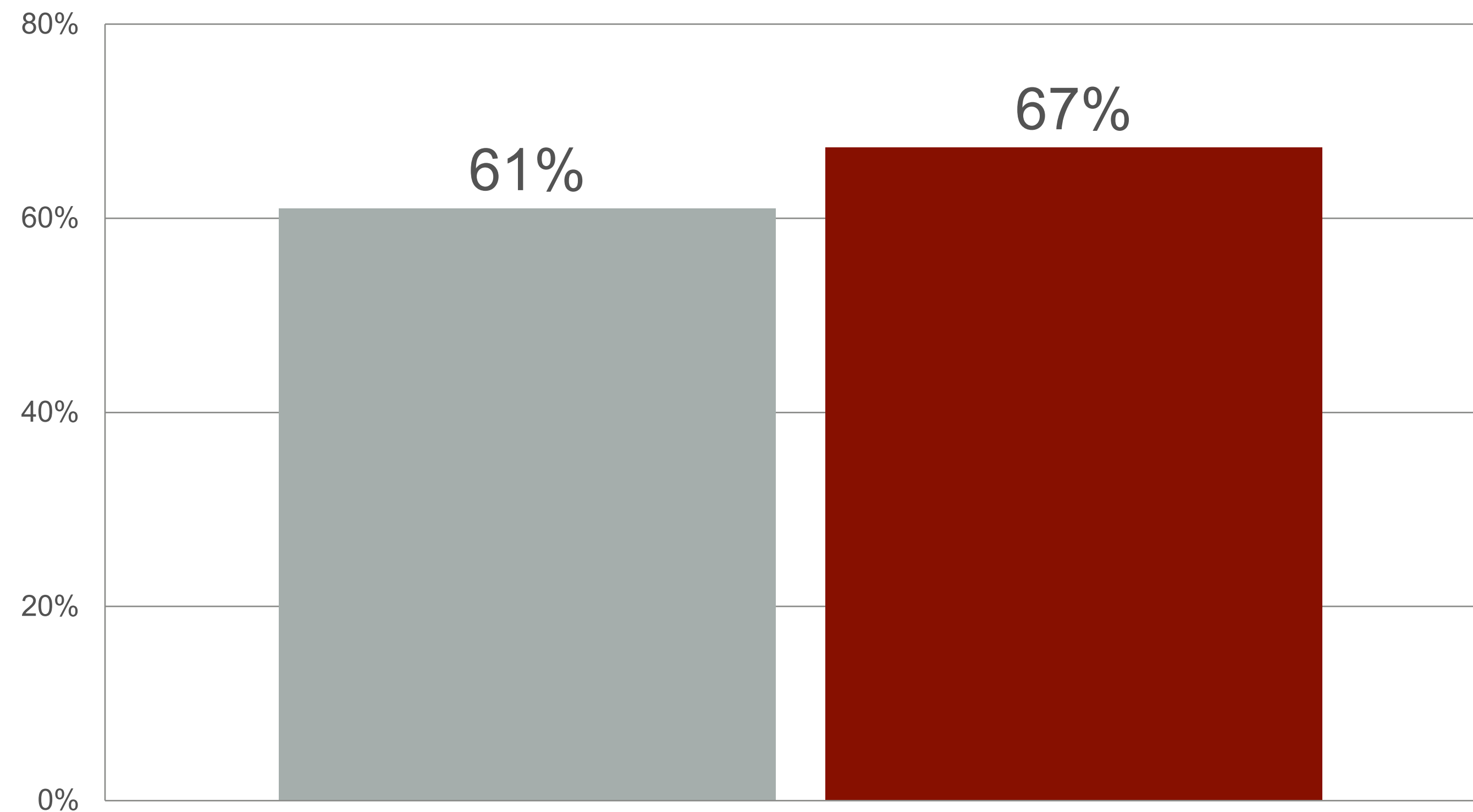
* p<.05; **p<.01; ***p<.001



KNOWLEDGE AND AWARENESS

Viewers were more likely to know companies monetize user attention through targeted ads*

< Small effect



* p<.05; **p<.01; ***p<.001



ATTITUDES & BELIEFS



Hypothesized impacts:

Increased perceived risks vs. benefits of social media:

- To oneself or family (e.g., mental health, social relationships, connectedness)
- On society (e.g., democracy, polarization, organizing/activism)

Support for design changes, regulatory changes, and individual-level usage changes

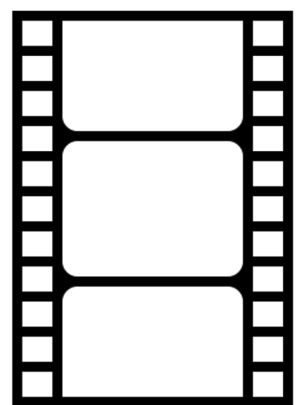
Perceived responsibility of social media platforms for Jan 6

ATTITUDES & BELIEFS



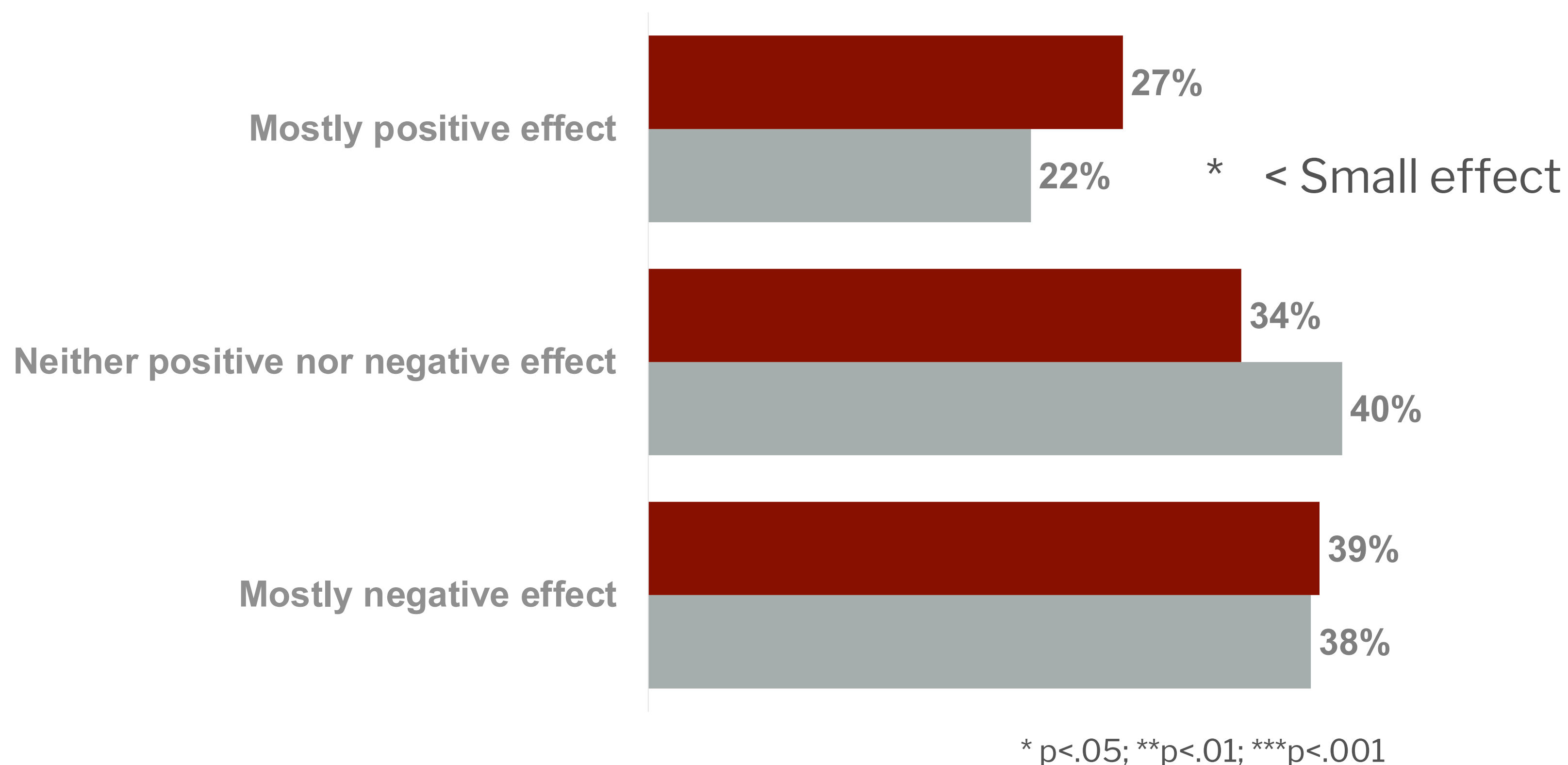
Significant impacts:

- Viewers were more likely to believe social media and search technologies have a “Mostly positive effect” on the country overall, but a negative impact on mental health
- Viewers had greater support for policy changes and regulations, and greater support for changes to the design of tech platforms to nudge users toward healthier behaviors
- Viewers were more likely to believe that individual behavior changes and design changes (but not regulation) would address concerns with tech companies



EFFECTS OF SOCIAL MEDIA

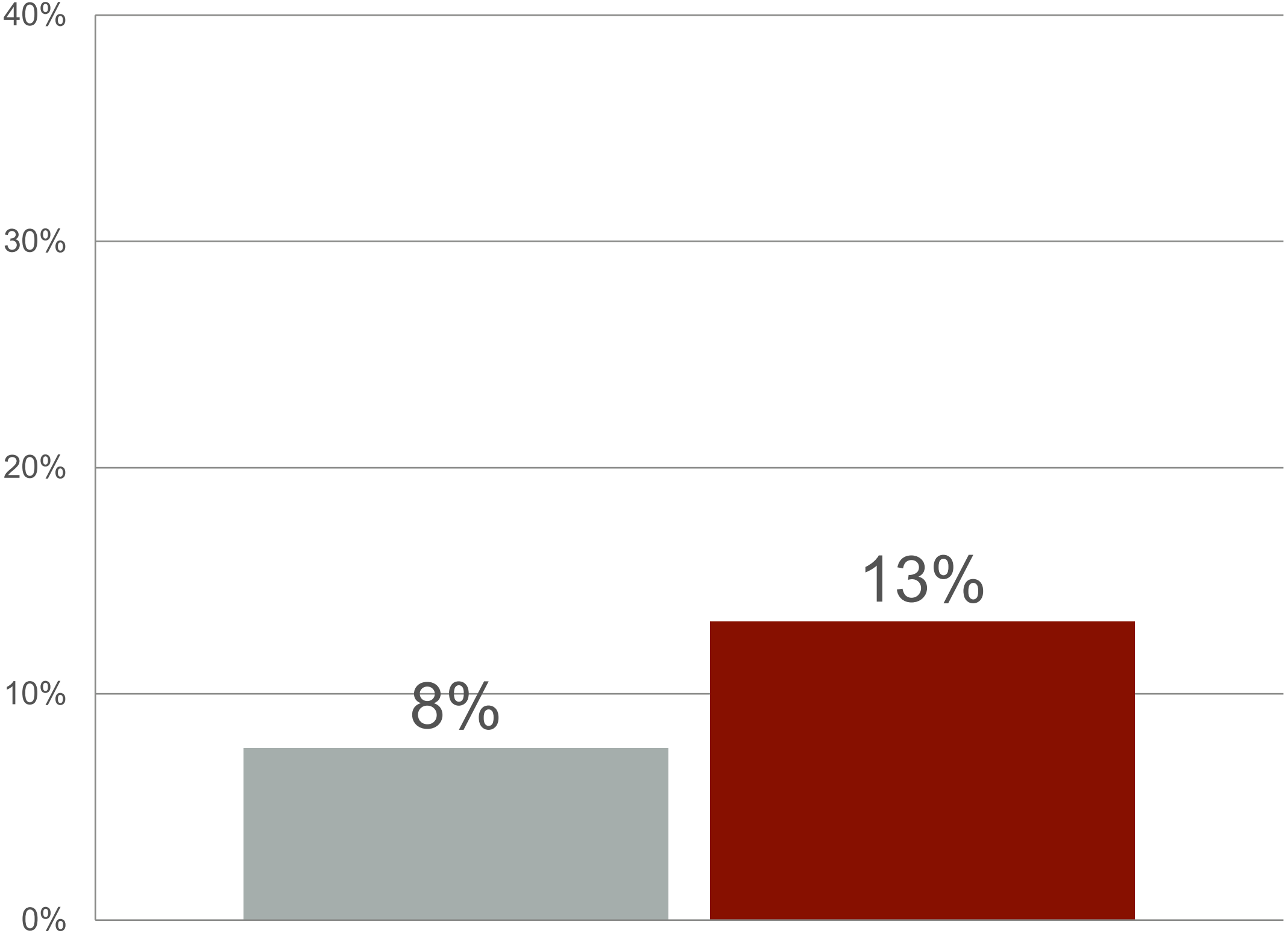
Did the film affect beliefs regarding the effect social media and search technologies have on the country overall? Yes, but in an unexpected way



POSITIVE EFFECTS OF SOCIAL MEDIA

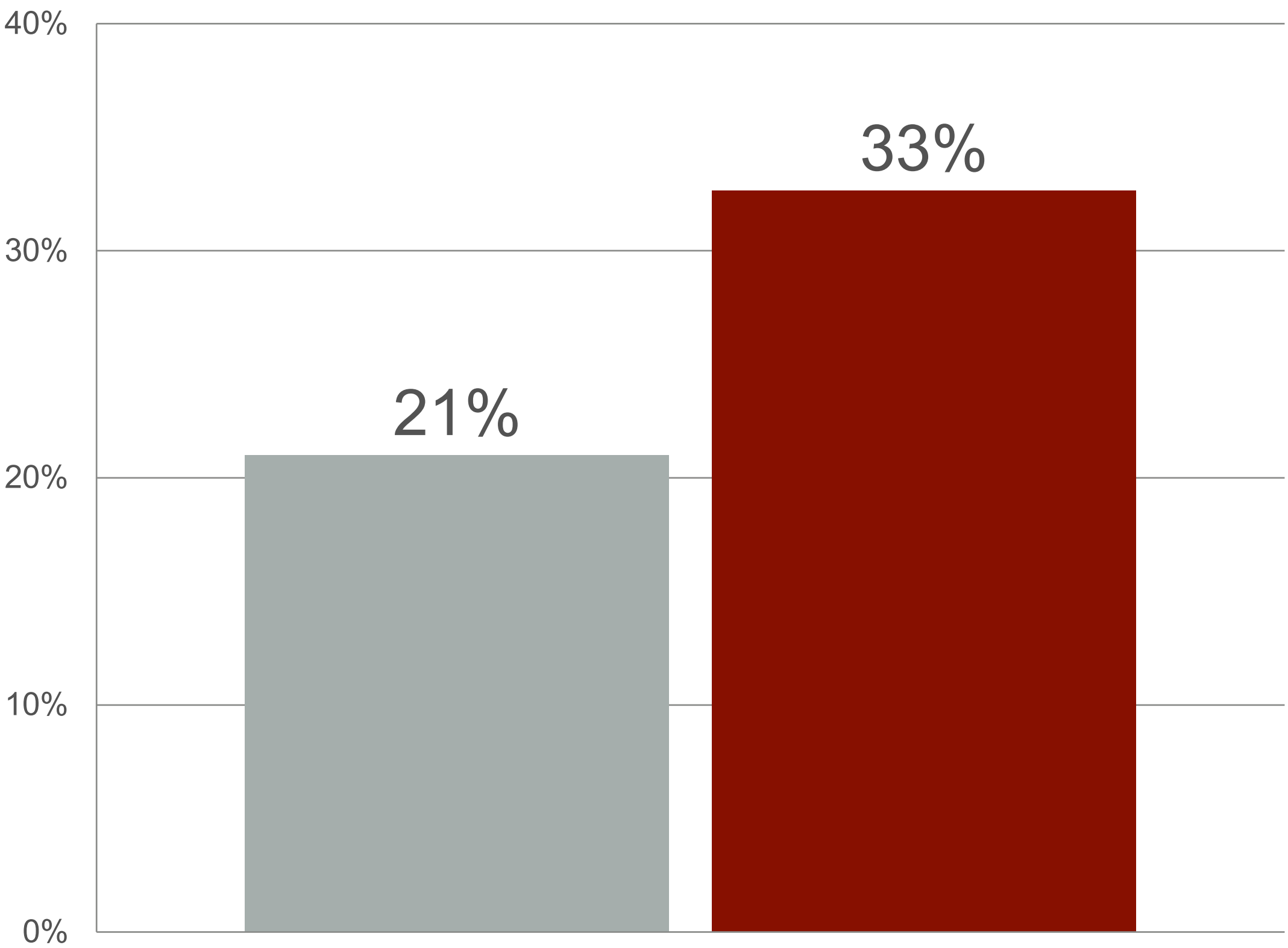
Viewers were more likely to say it increases access to news*

Small effect



And increases communication and connection*

Small effect



* p<.05; **p<.01; ***p<.001

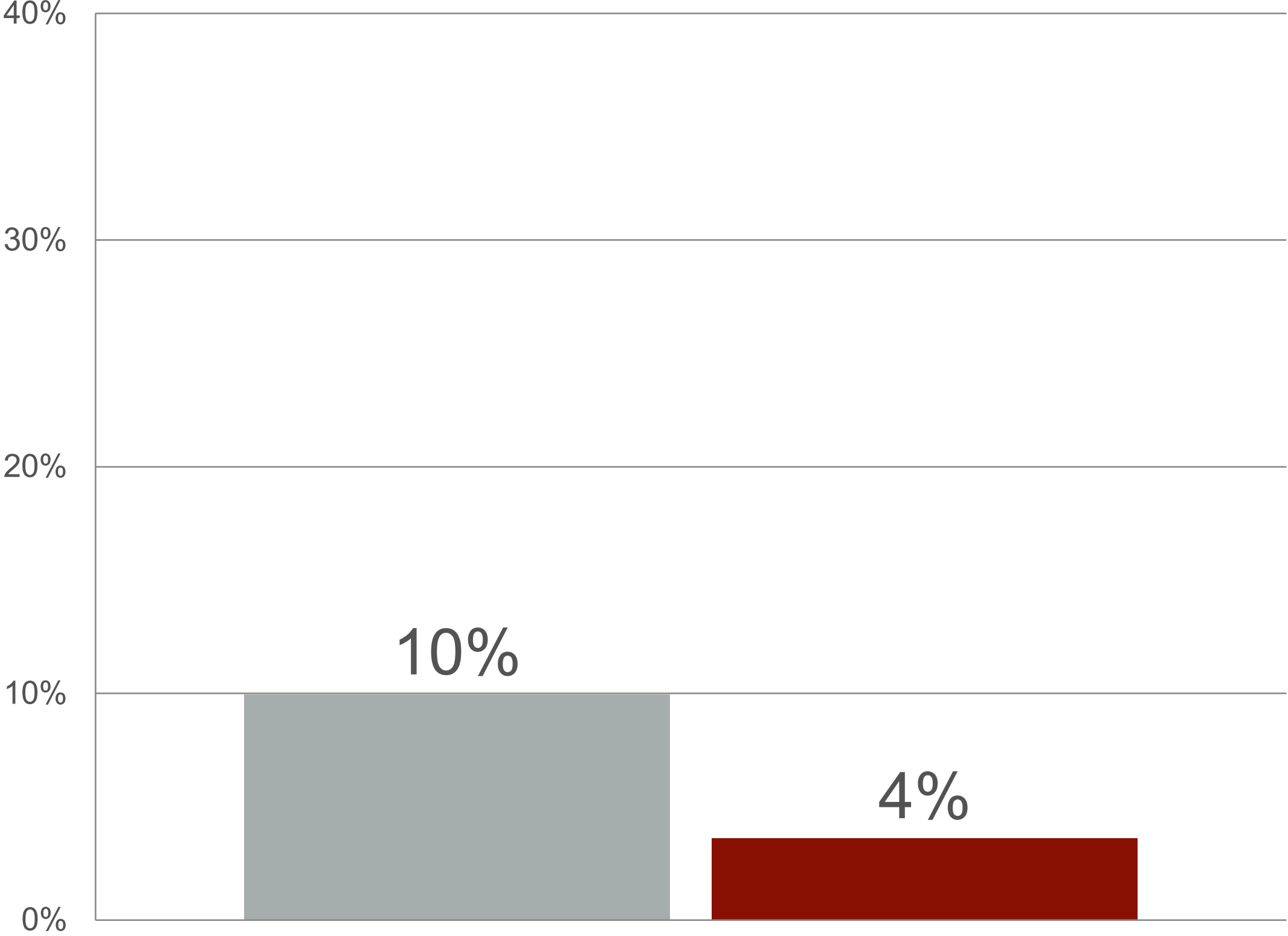


The Social Dilemma by Exposure Labs

NEGATIVE EFFECTS OF SOCIAL MEDIA

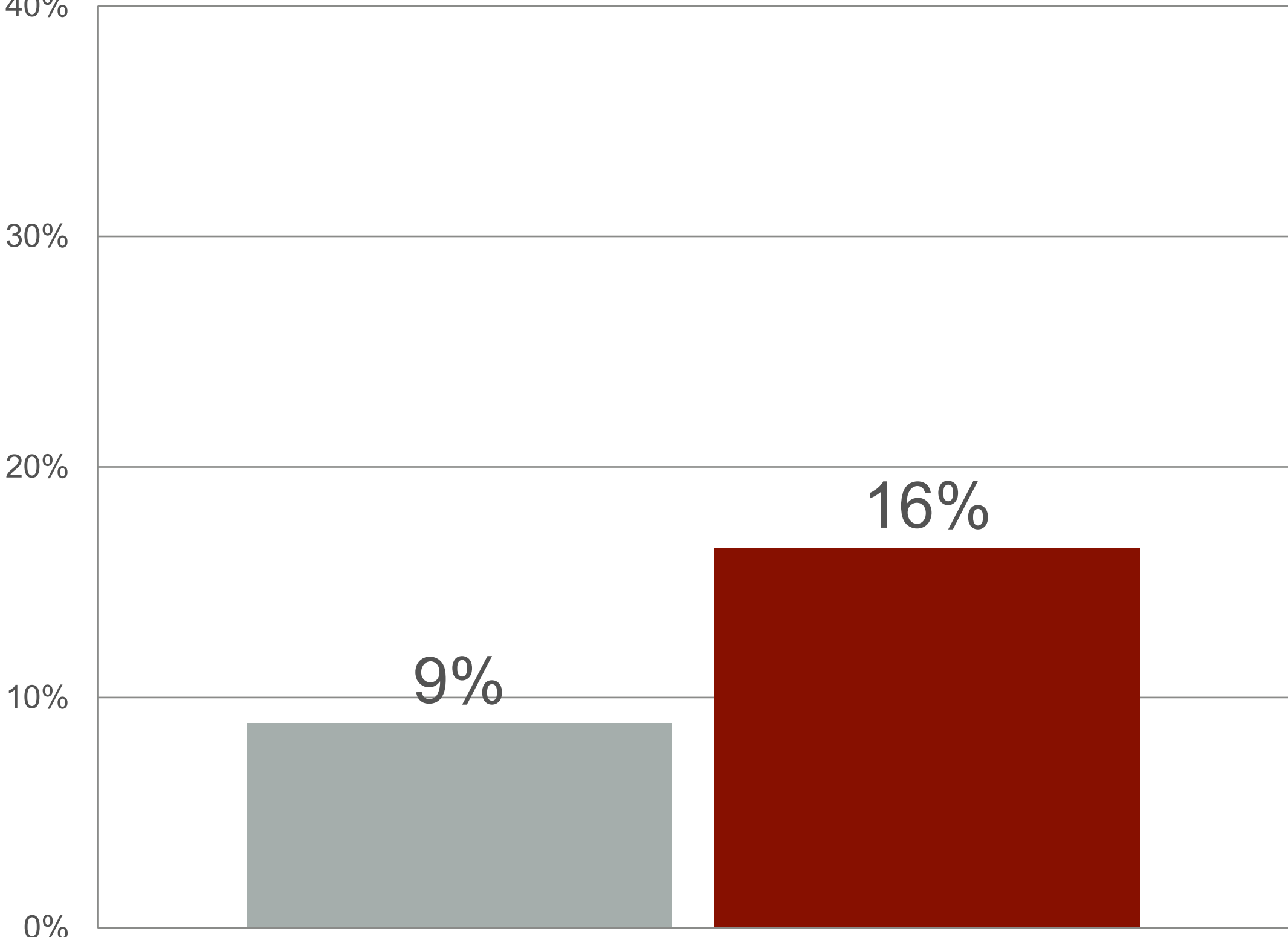
Non-viewers were more likely to say it censors free speech*

Small effect

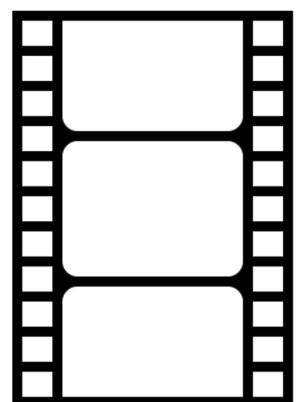


Viewers were more likely to say it has a negative impact on mental health*

Small effect

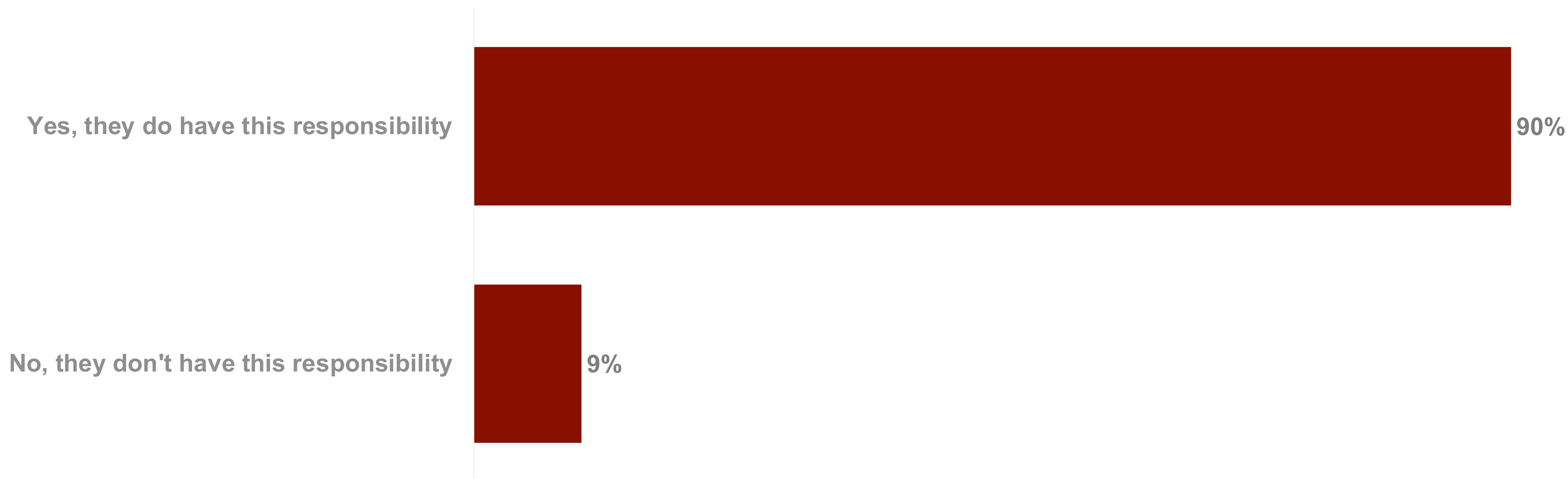


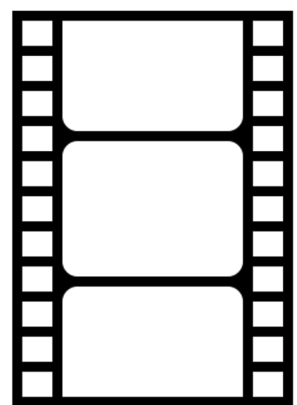
* p<.05; **p<.01; ***p<.001



TECH COMPANIES RESPONSIBLE

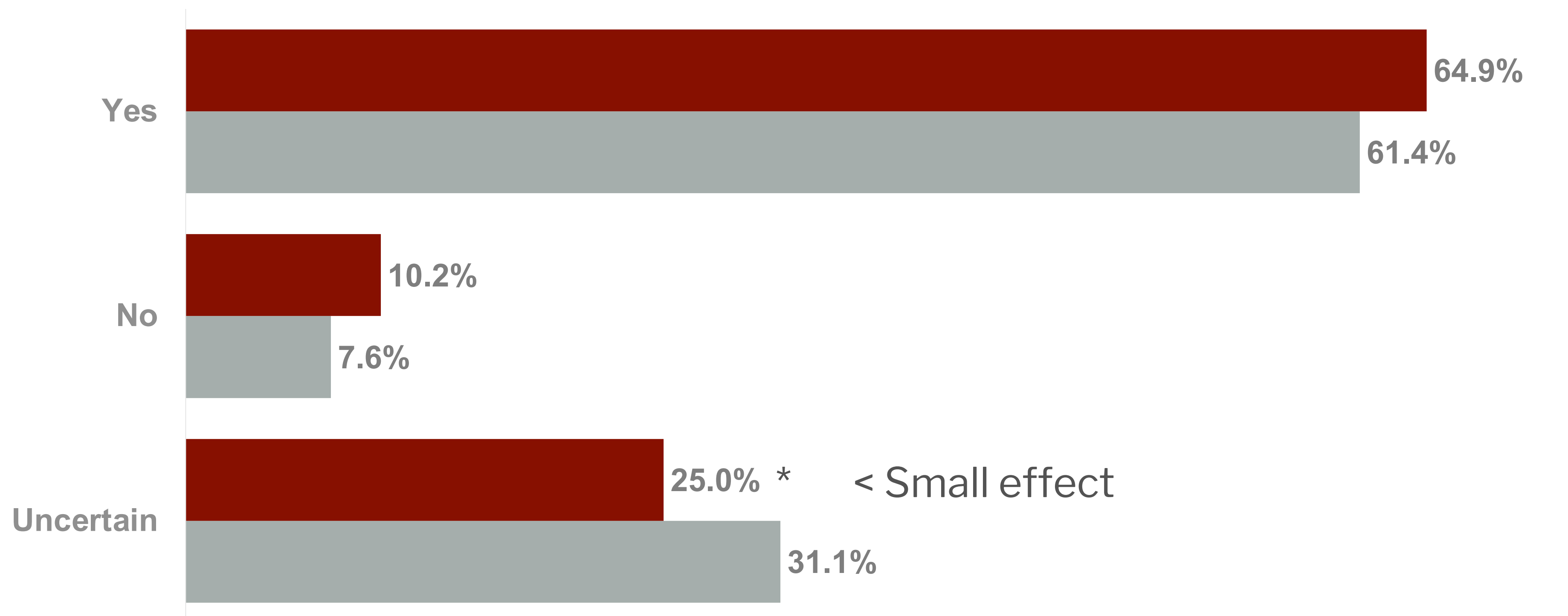
Did the film affect beliefs about whether technology companies like Facebook, Twitter, and Google have a responsibility to prevent the misuse of their platforms by users? No, but 90% of respondents believe they do have this responsibility



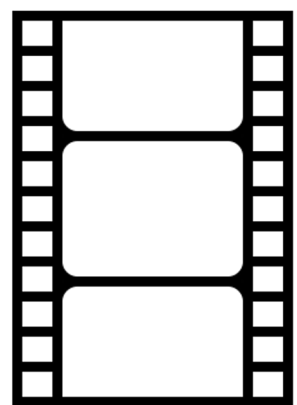


BUSINESS MODEL NEEDS TO CHANGE

Did the film affect beliefs that the business model behind social media and search technologies needs to change? Fewer viewers expressed uncertainty

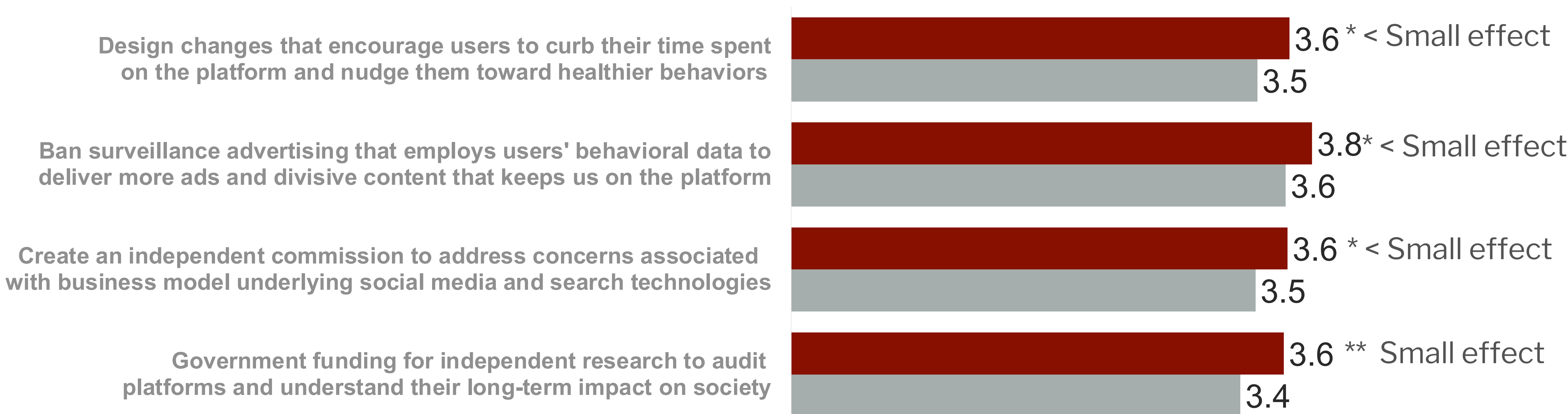


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)



SUPPORT FOR REFORM

Did the film affect viewers' support for reforms or regulatory efforts to address concerns associated with social media and search technologies? Yes, for some reforms



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

1=Not at all

5=Extremely



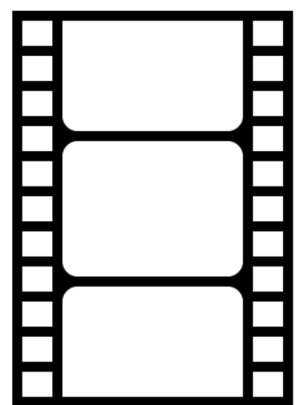
The Social Dilemma by Exposure Labs



35

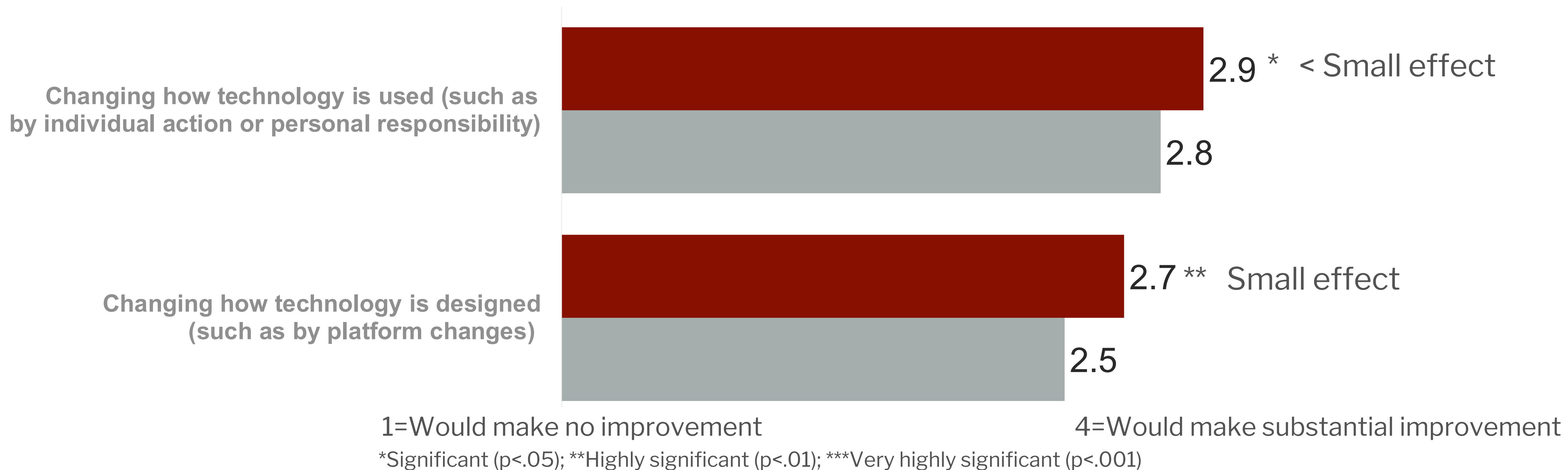


www.mediaimpactproject.org



SUPPORT FOR REFORM

Did the film affect viewers' belief that that recommended reforms would address concerns associated with social media and search companies? Yes, for individual usage and design changes, not for regulation



EFFICACY & BEHAVIOR



Hypothesized impacts:

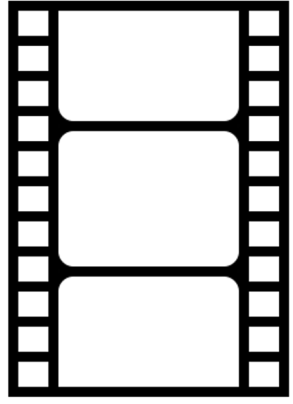
- Increased efficacy: Belief in one's ability to make changes in personal tech usage; Collective = ability to work with others to create large-scale change
- Changes in technology use: Usage (e.g., specific platforms, time spent, motivations); Restrictions (e.g., screen time limits, settings, ad settings, child restrictions)
- Increased actions taken: Information-seeking; Conversations with others; Civic engagement (e.g., contacting an elected official, signing a petition)

EFFICACY & BEHAVIOR



Significant impacts:

- Viewers had greater self-efficacy in their homes and local communities
- Viewers were more likely to limit where they use smartphones
- Viewers were more likely to discuss social media and search technology issues with friends, family, or colleagues
- Viewers were more likely to take a variety of civic engagement actions



SELF-EFFICACY

Did the film affect viewers' self-efficacy (belief that their actions can make a difference)? Viewers had higher self-efficacy in their homes and local communities

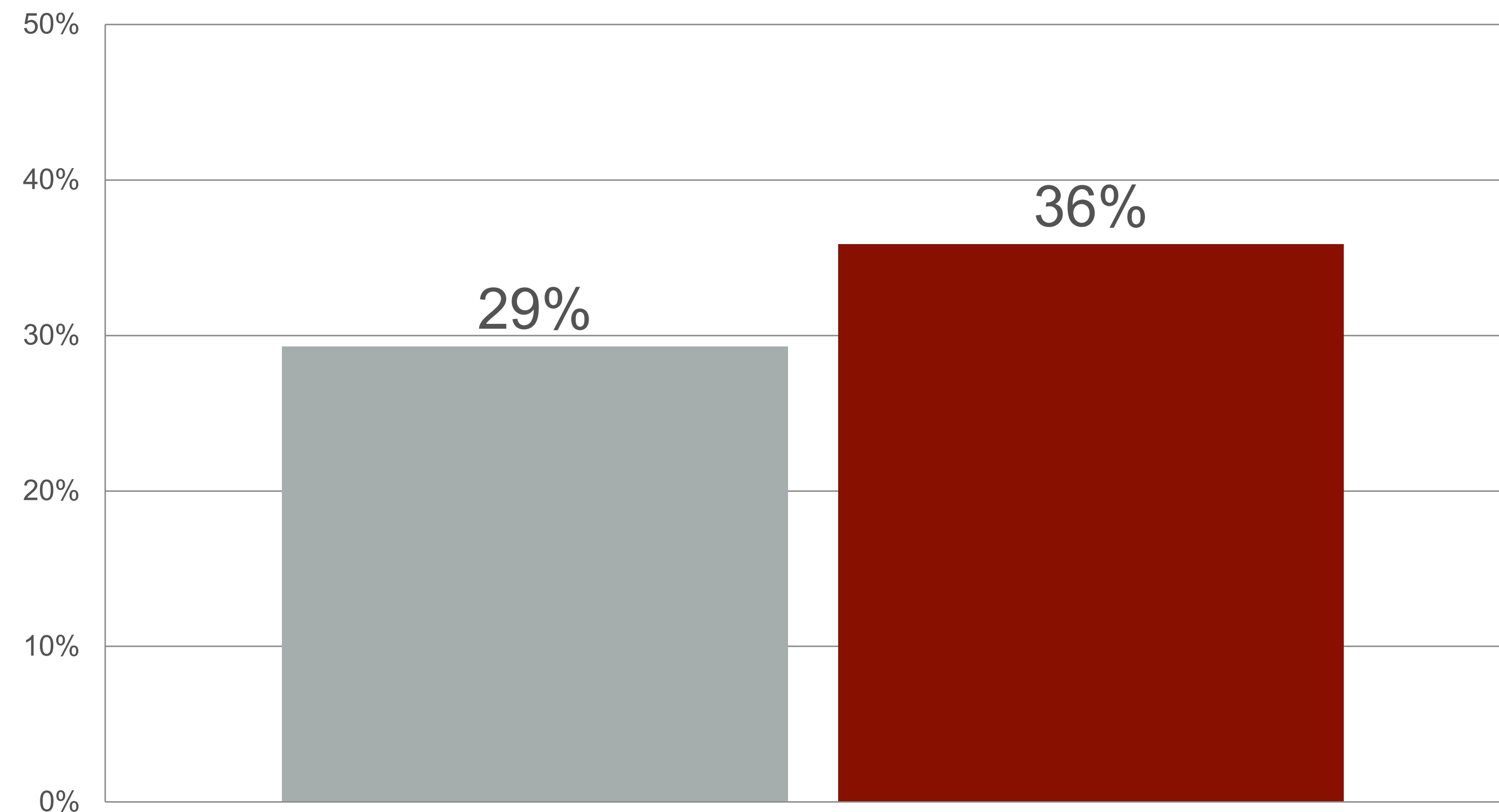


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

TECHNOLOGY RESTRICTION ACTIONS

Viewers were more likely to limit where they use smartphones*

< Small effect

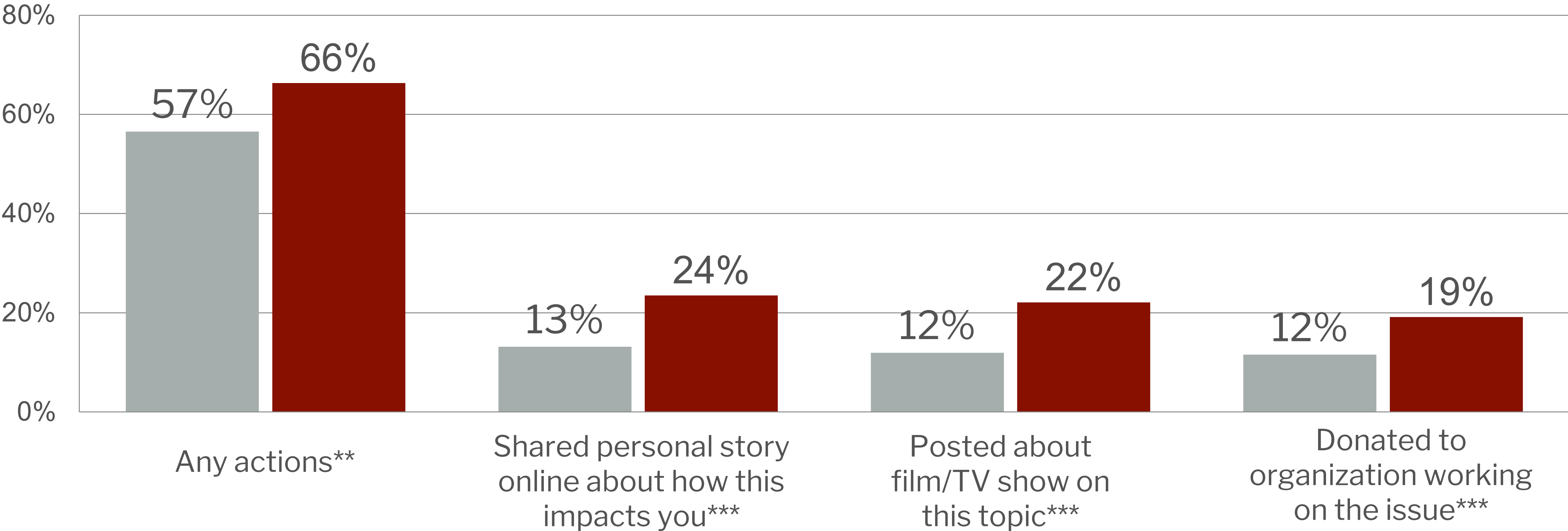


*Significant ($p < .05$); **Highly significant ($p < .01$); ***Very highly significant ($p < .001$)

CIVIC ENGAGEMENT ACTIONS

Viewers were more likely to take various actions in the past 9 months

Small effects

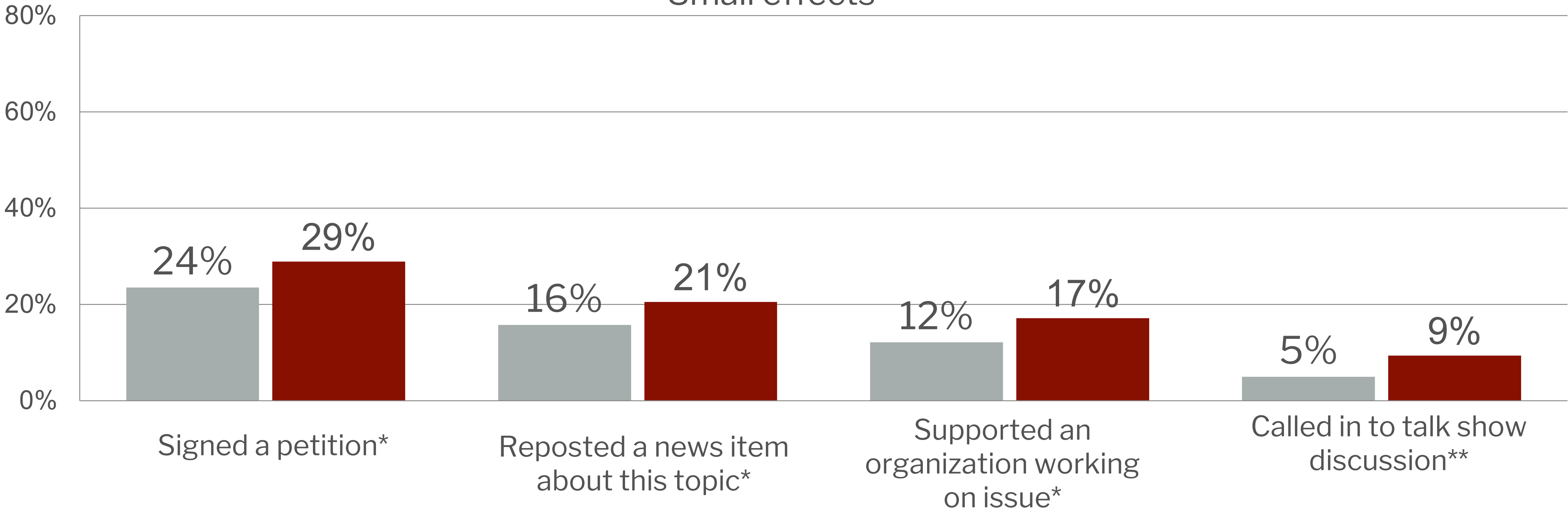


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

CIVIC ENGAGEMENT ACTIONS

Viewers were more likely to take various actions in the past 9 months

< Small effects



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)



RQ2. TSD VIEWER RESPONSES

TSD VIEWERS



Key findings:

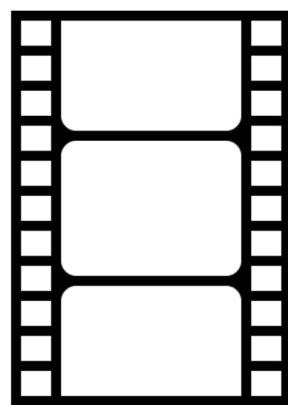
- More than half of viewers watched TSD more than 4 months prior, 30% at least 7 months prior
- The most cited reasons for watching TSD were recommended on Netflix, recommended by a friend, or hearing about it on social media
- Most viewers indicated TSD impacted them personally in a variety of ways, including urgency about the need for change
- Most viewers indicated TSD was at least “somewhat” successful at showing societal impact

TSD VIEWERS

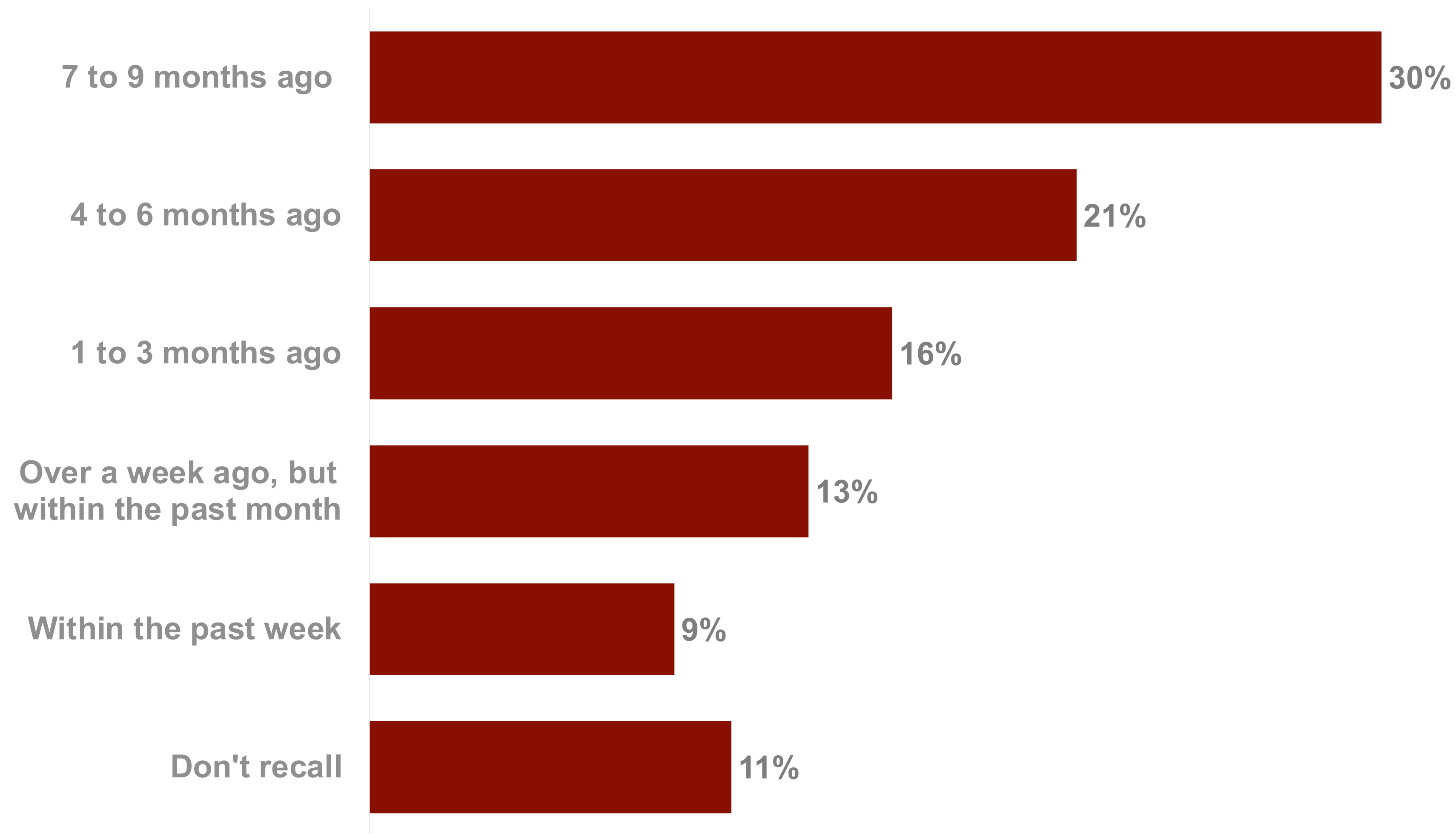


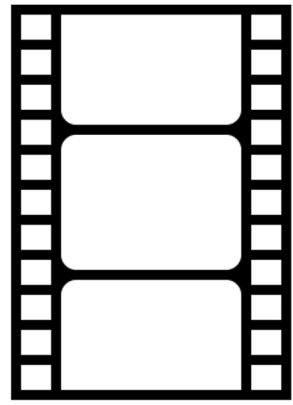
Key findings:

- Nearly nine out of ten viewers took at least one campaign action, including 42% who visited the TSD website
- The most common emotional responses were sad, surprised, angry, disgusted, and afraid (nearly 3 in 10 each); only 23% felt hopeful
- Asked what “characters” most effectively conveyed the problem, viewers were much more likely to select the interviewees (former tech workers, researchers) than the fictional family or AI characters

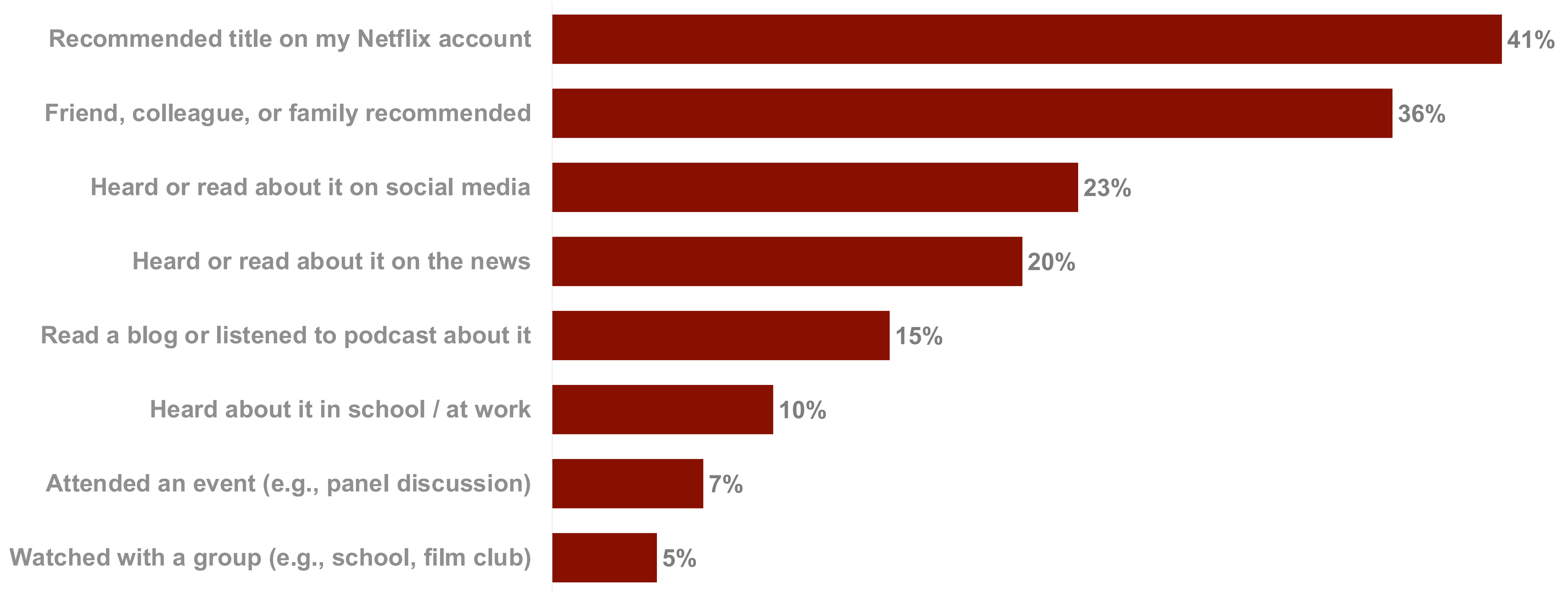


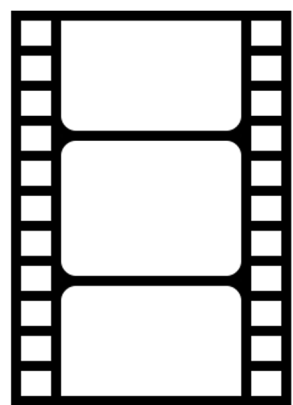
HOW LONG AGO DID YOU WATCH TSD?



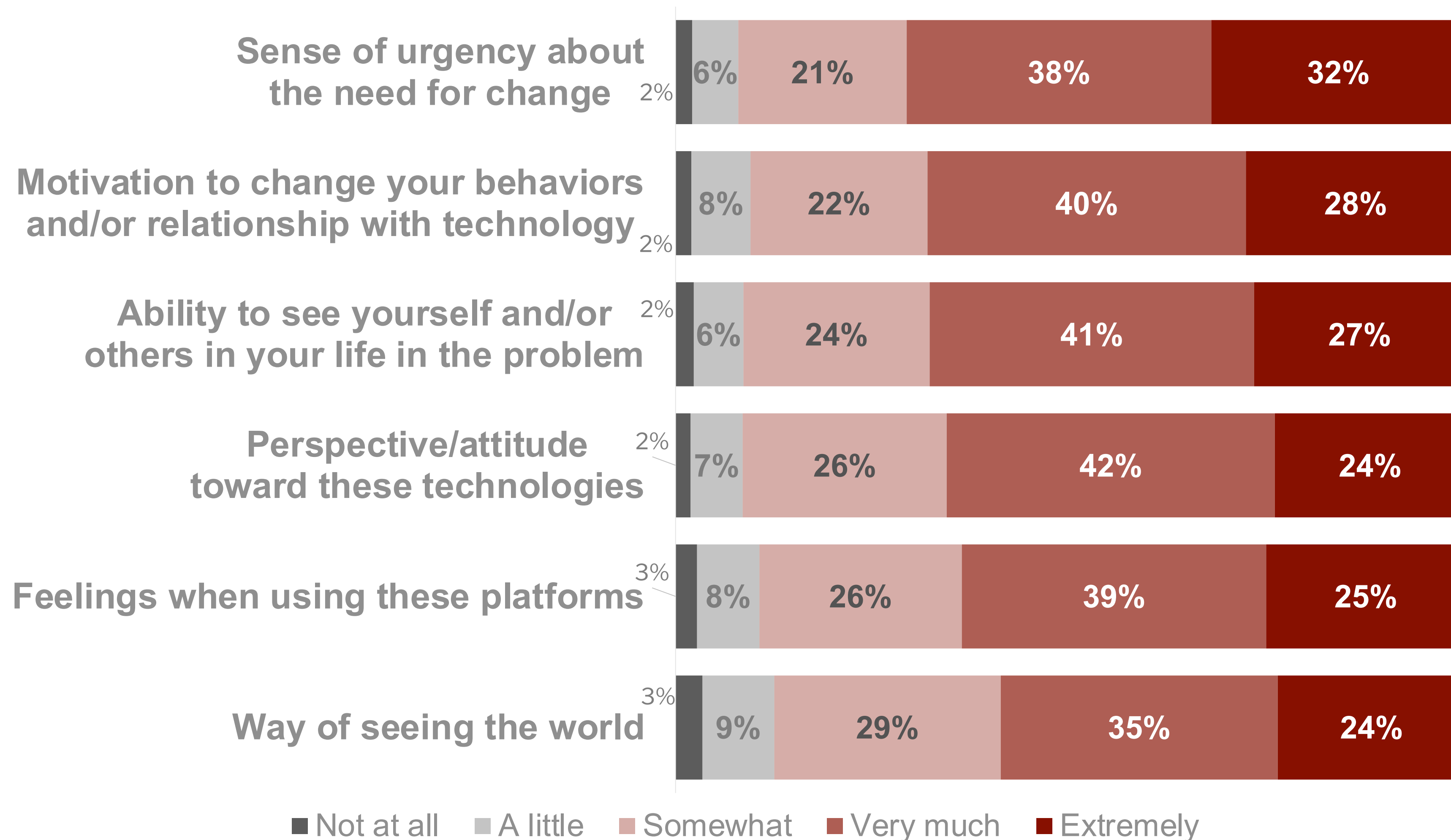


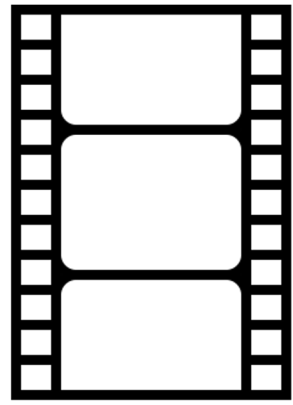
WHAT PROMPTED YOU TO WATCH TSD?



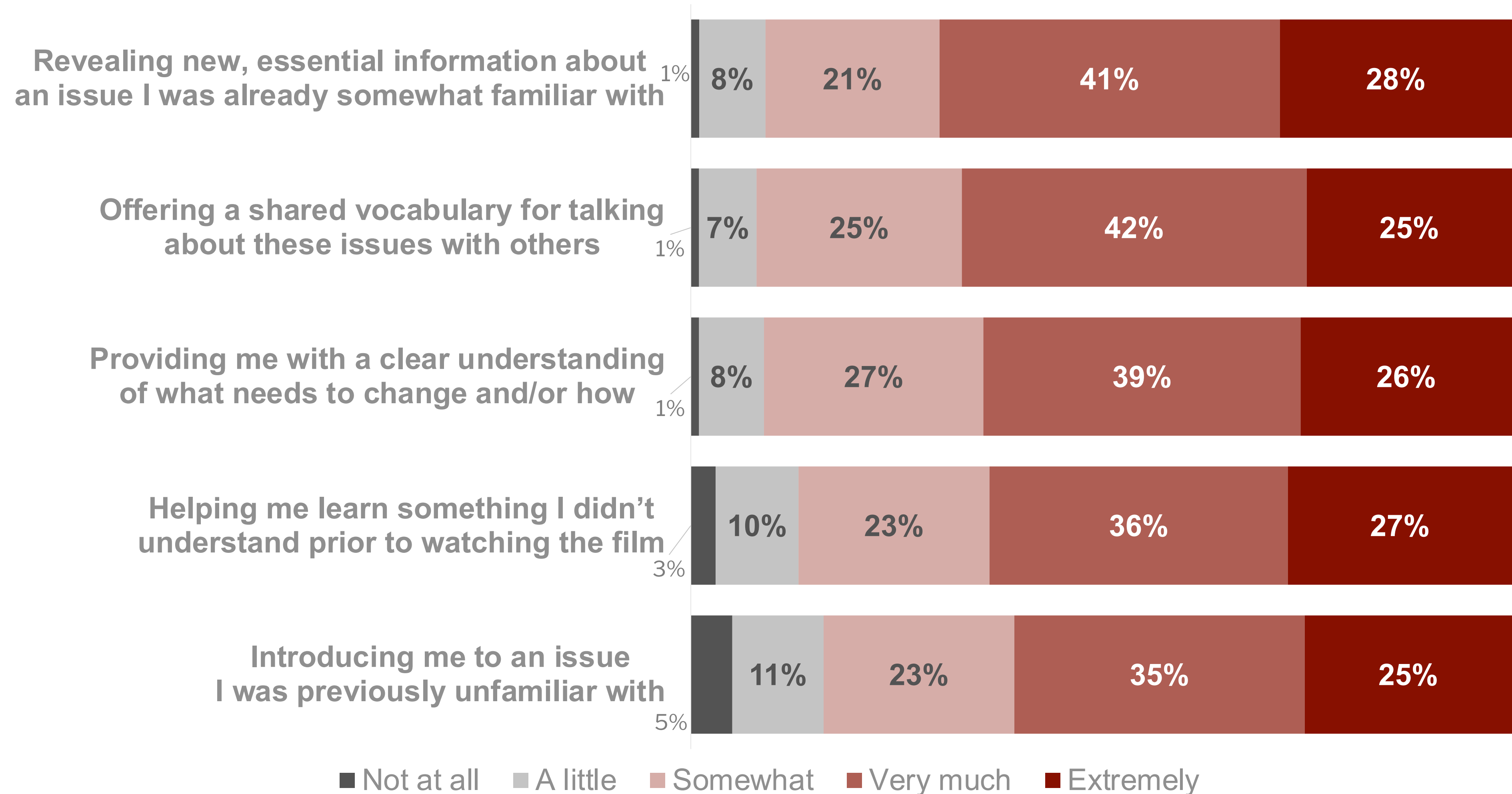


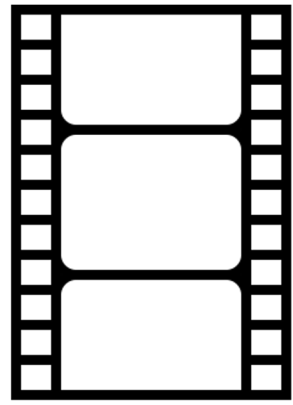
PERCEIVED PERSONAL IMPACT OF TSD



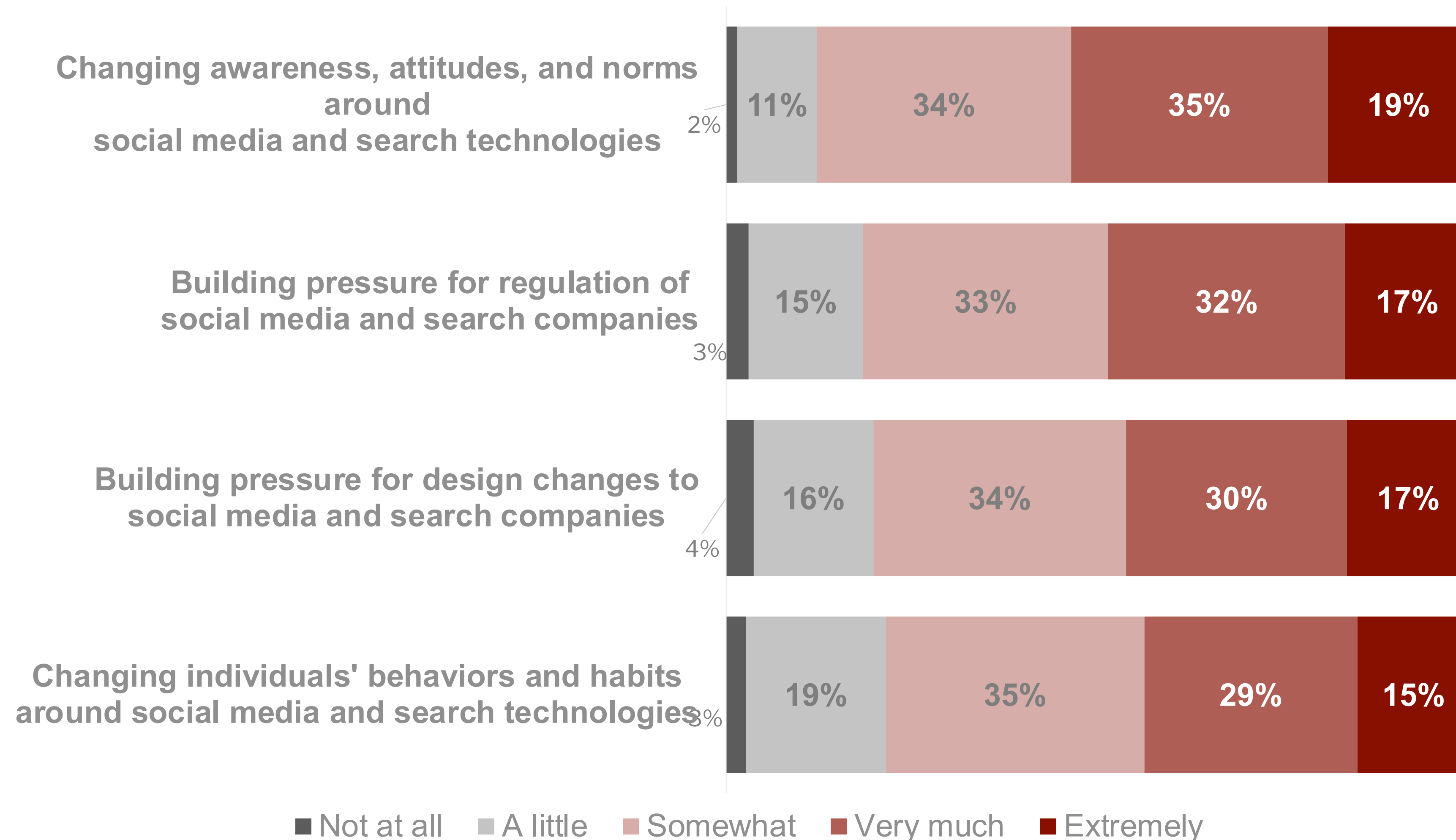


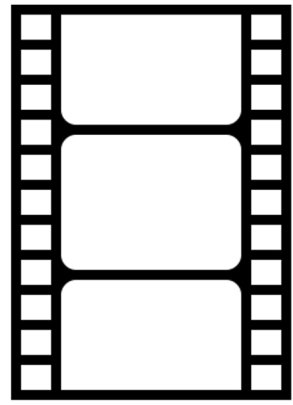
PERCEIVED PERSONAL IMPACT OF TSD



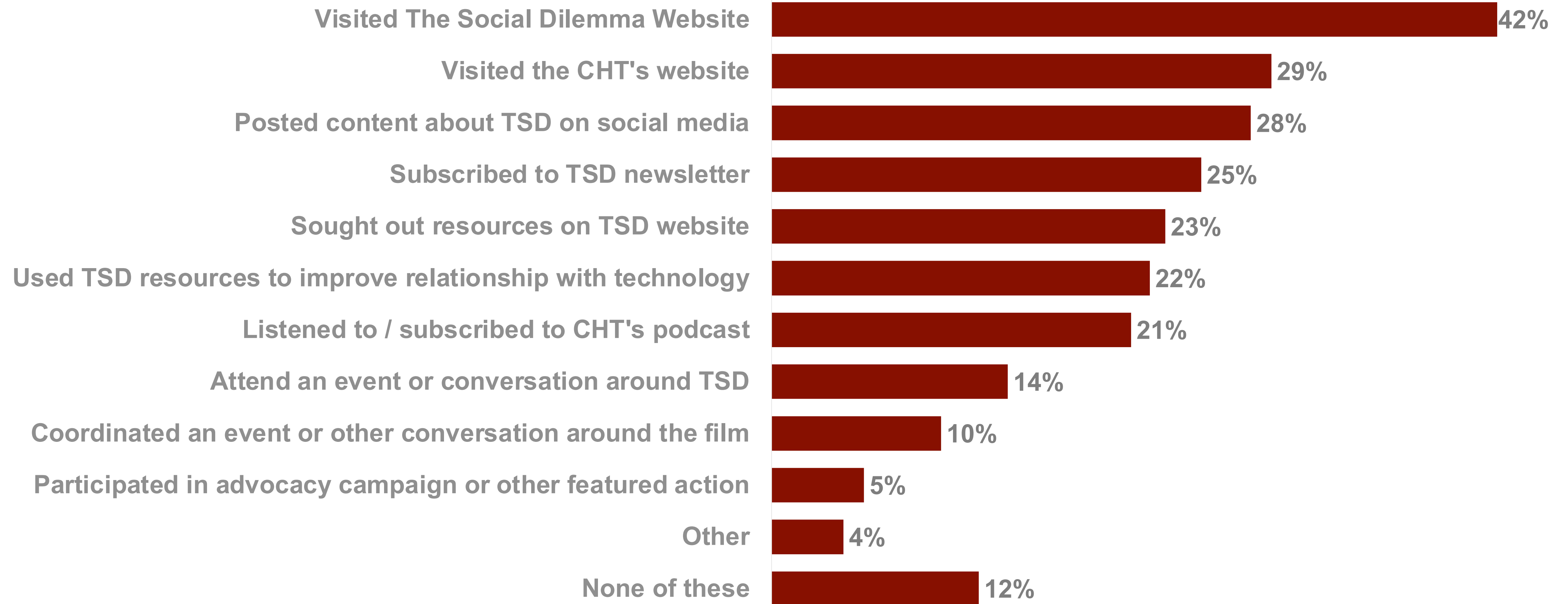


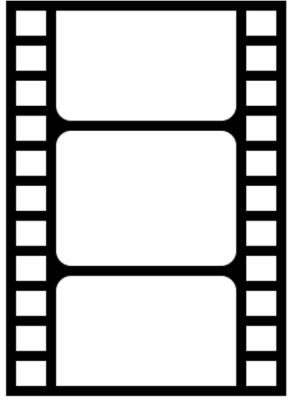
PERCEIVED SOCIETAL IMPACT OF TSD



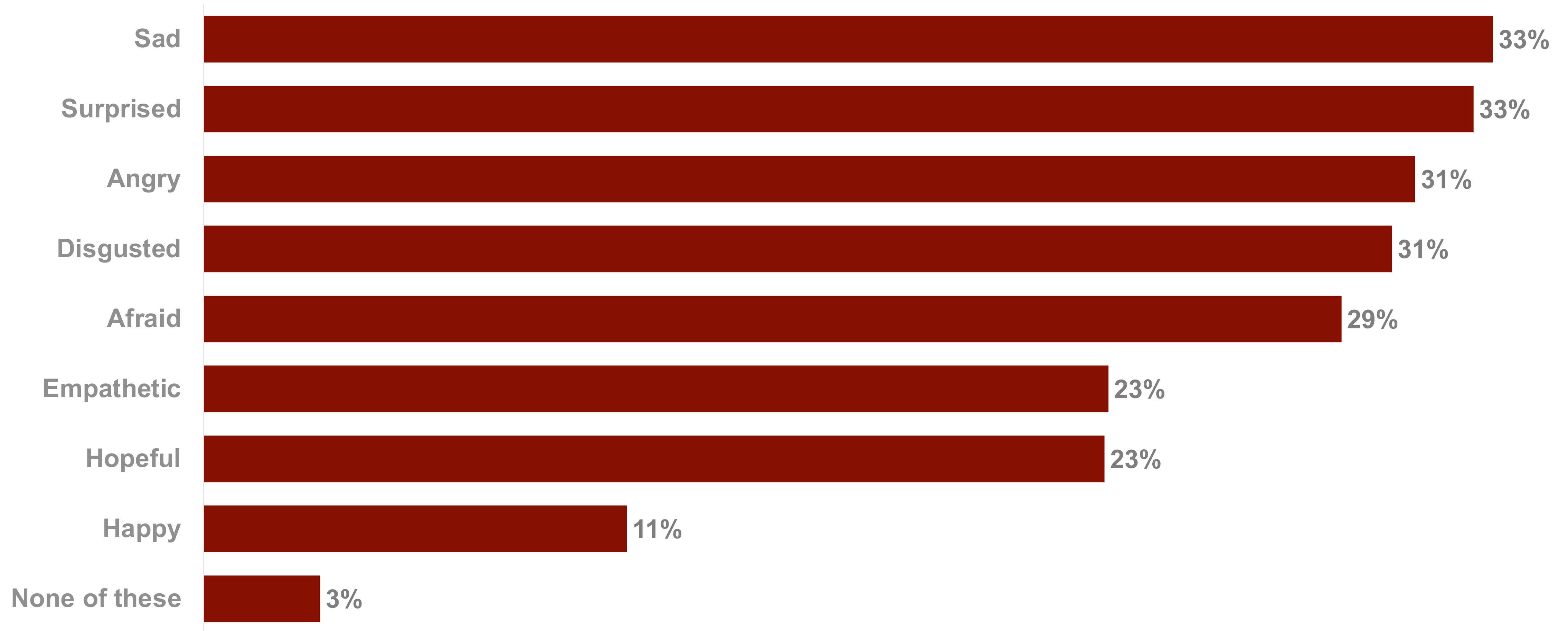


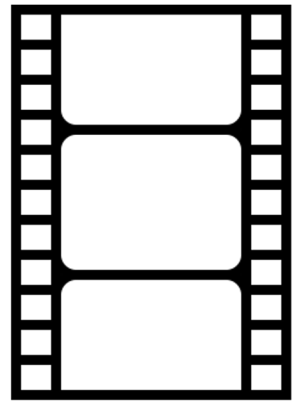
CAMPAIGN ACTIONS



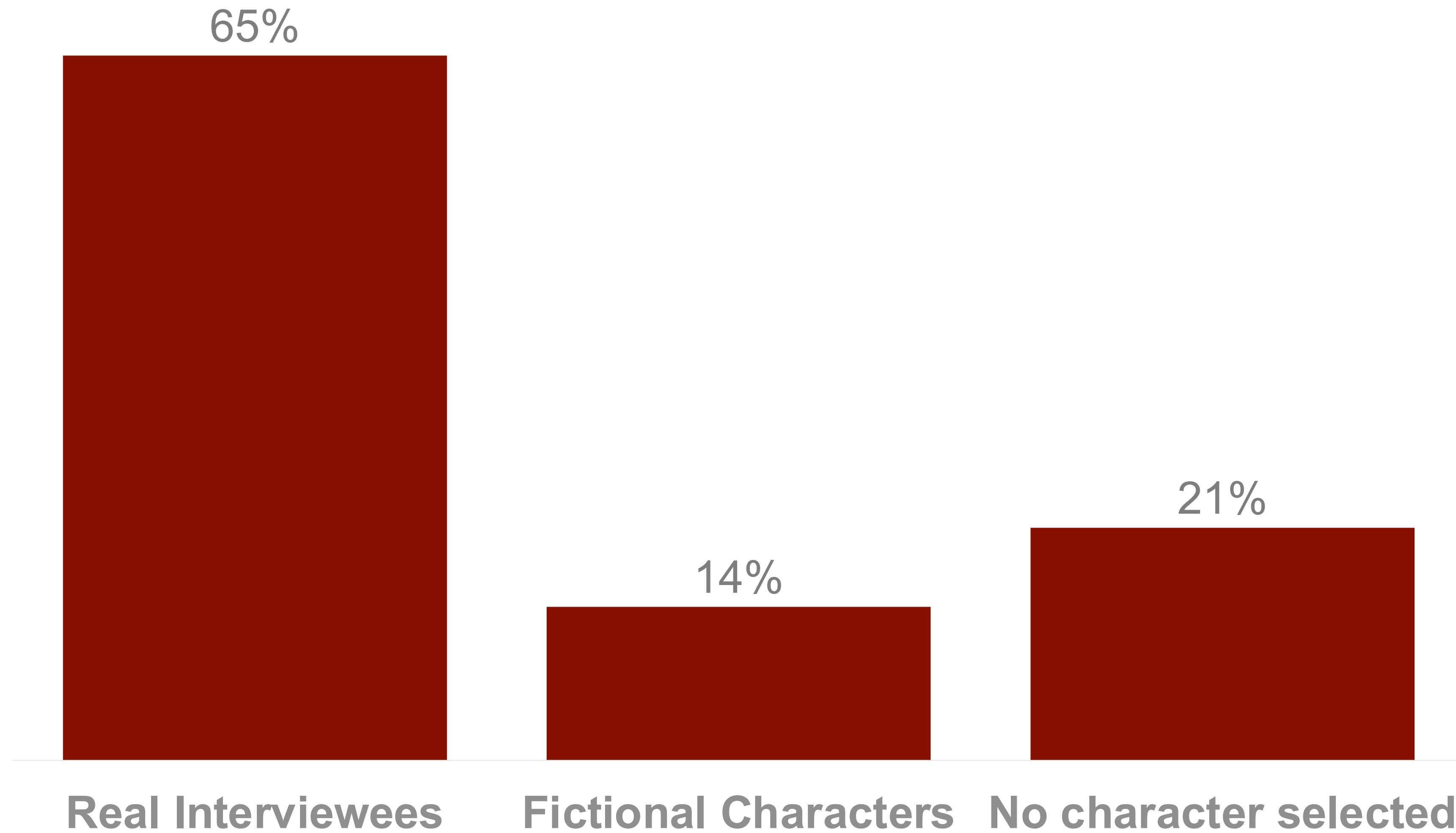


EMOTIONAL RESPONSES





WHICH CHARACTERS MOST EFFECTIVELY CONVEYED THE PROBLEM?





RQ3.
DO CERTAIN SUBGROUPS
HAVE MORE POSITIVE
OUTCOMES?

SAMPLE SOURCE



Significant impacts:

Viewers recruited from Exposure Labs:

- Were more knowledgeable about persuasive design techniques and how tech companies monetize user attention
- Were more likely to say social media has “mostly negative” effects
- Held social media more responsible for Jan 6
- Were more likely to feel afraid
- Had greater support for design changes and regulations
- Took more individual technology restrictions actions and campaign actions
- Rated TSD more successful at showing personal impacts

SAMPLE SOURCE



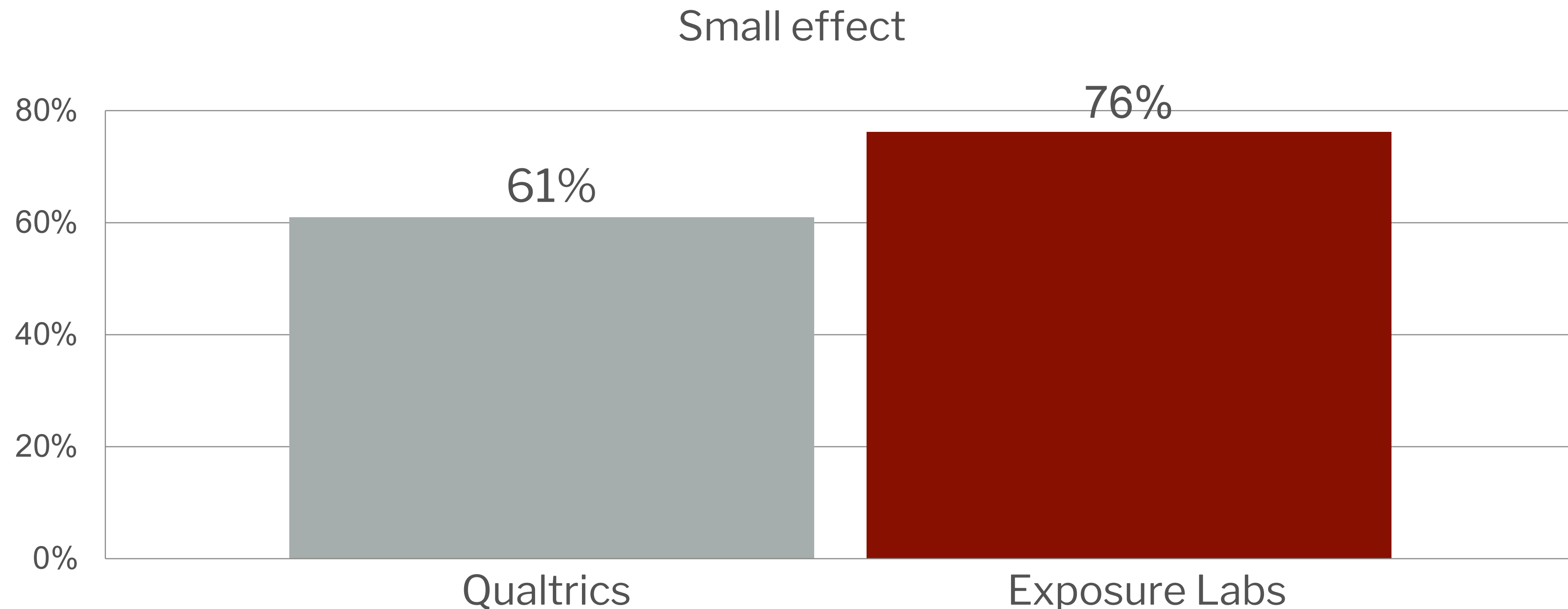
Significant impacts:

Viewers recruited from Qualtrics:

- Were more likely to feel hopeful
- Were more likely to take various civic engagement actions
- Rated TSD more successful at showing societal impacts

SAMPLE: KNOWLEDGE

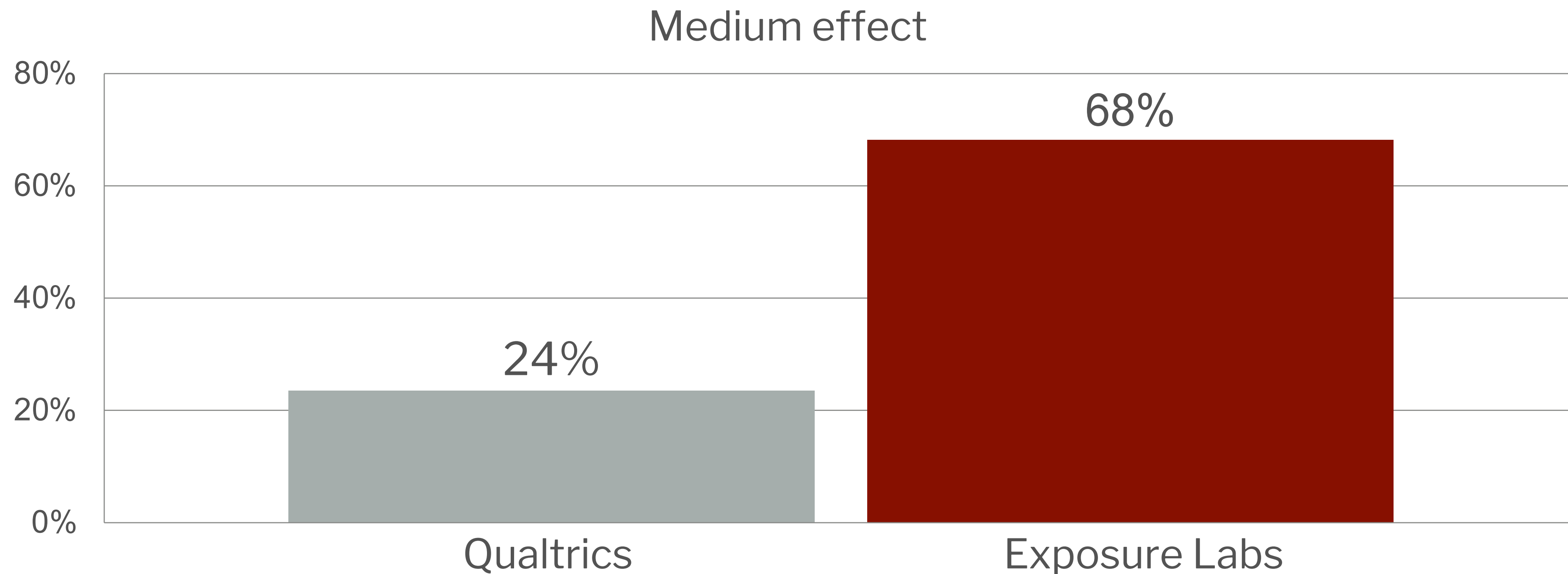
Viewers recruited from Exposure Labs were more likely to know how tech companies monetize user attention***



*Significant ($p < .05$); **Highly significant ($p < .01$); ***Very highly significant ($p < .001$)

SAMPLE: KNOWLEDGE

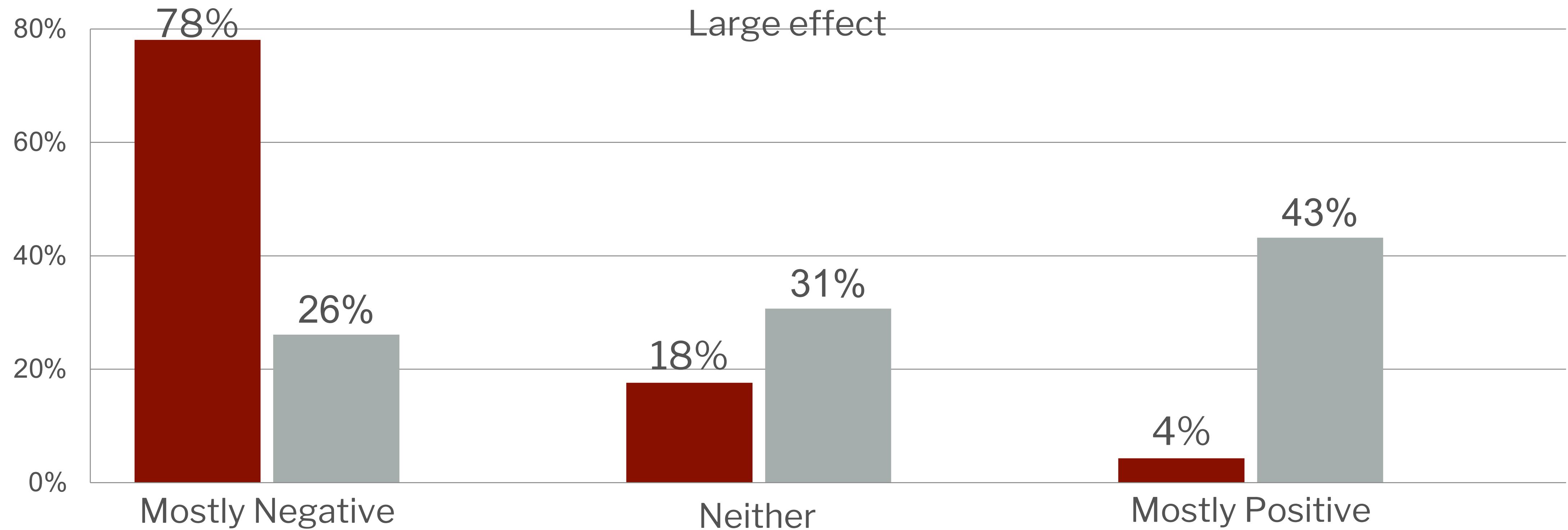
Viewers recruited from Exposure Labs were more likely to recognize persuasive design techniques***



*Significant ($p < .05$); **Highly significant ($p < .01$); ***Very highly significant ($p < .001$)

SAMPLE: ATTITUDES

Viewers recruited from Exposure Labs were more likely to say social media has mostly negative effects***



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

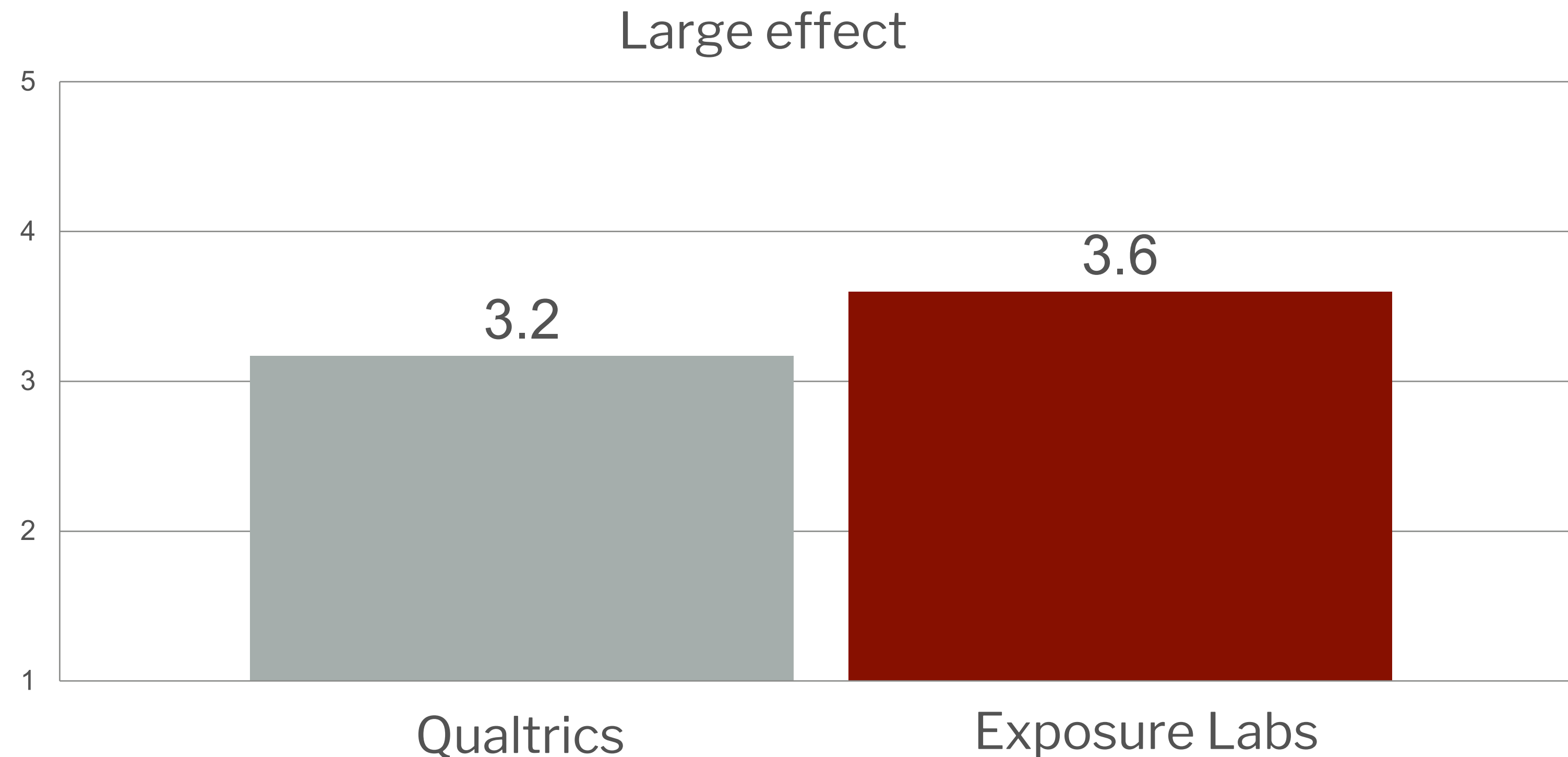
Qualtrics Exposure Labs



The Social Dilemma by Exposure Labs

SAMPLE: JAN 6 RESPONSIBILITY

Viewers recruited from Exposure Labs held social media more responsible for the events of Jan 6***

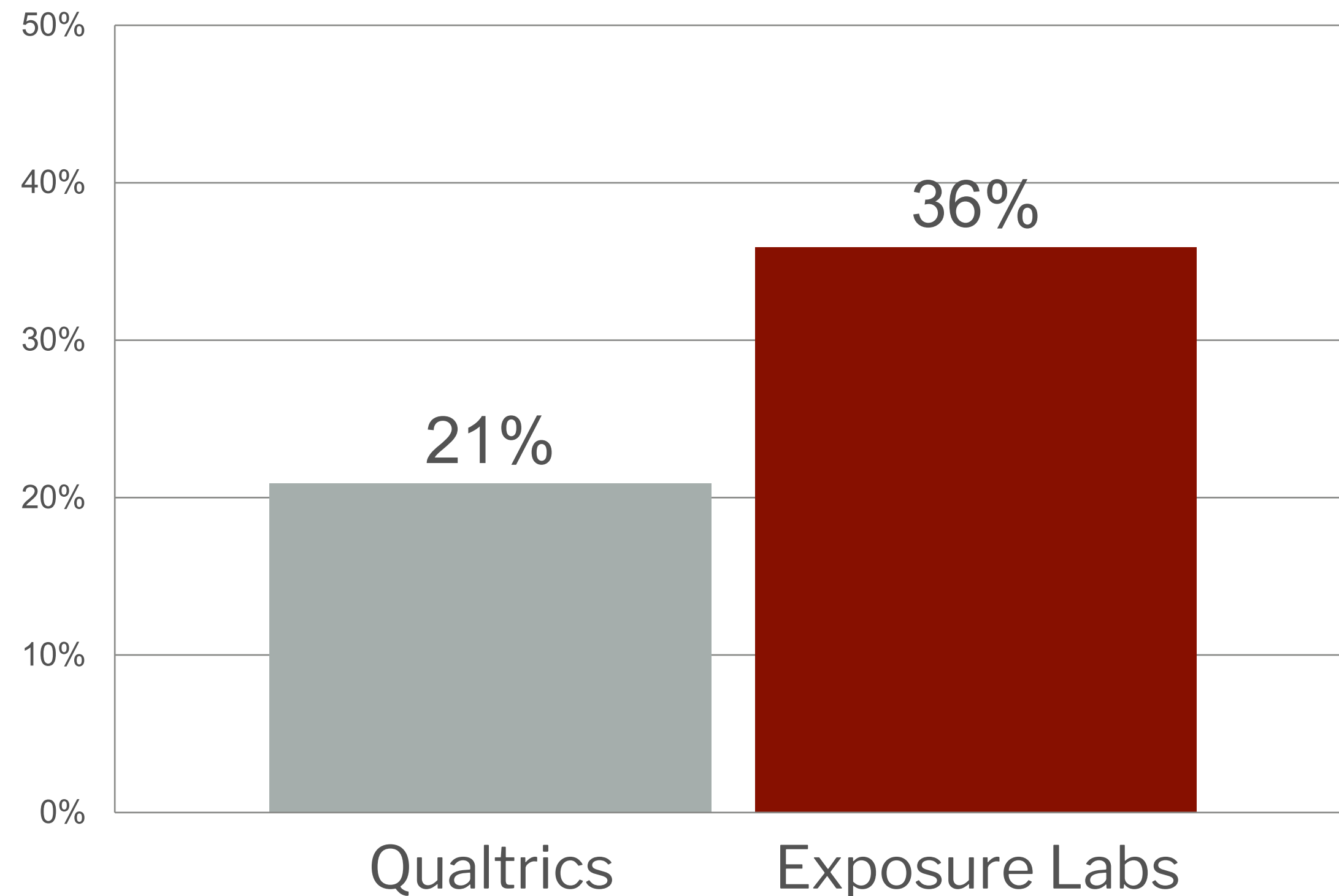


* p<.05; **p<.01; ***p<.001

SAMPLE: EMOTIONAL RESPONSES

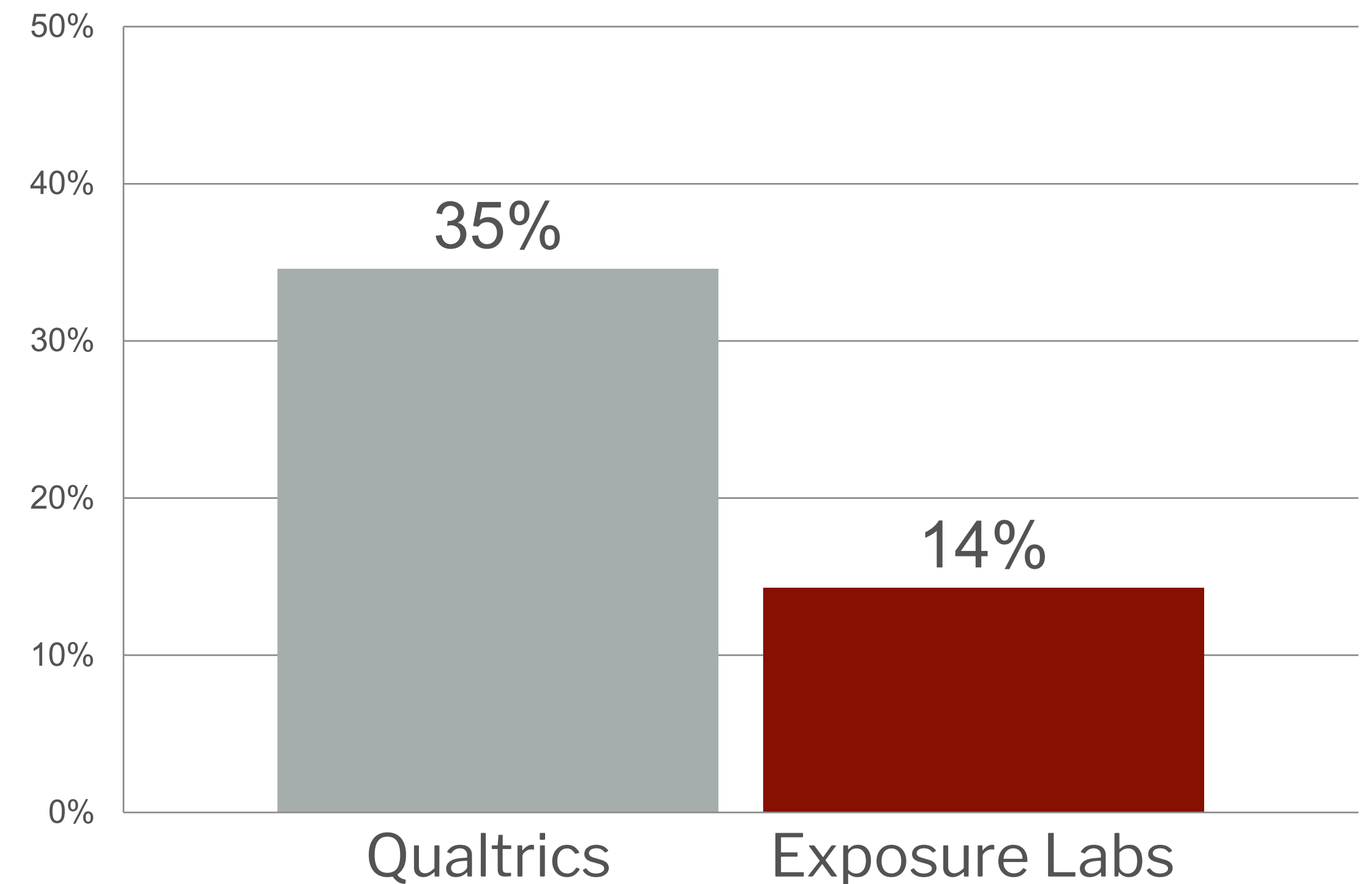
Viewers recruited from Exposure Labs were more likely to feel afraid***

Small effect



Viewers recruited from Qualtrics were more likely to feel hopeful***

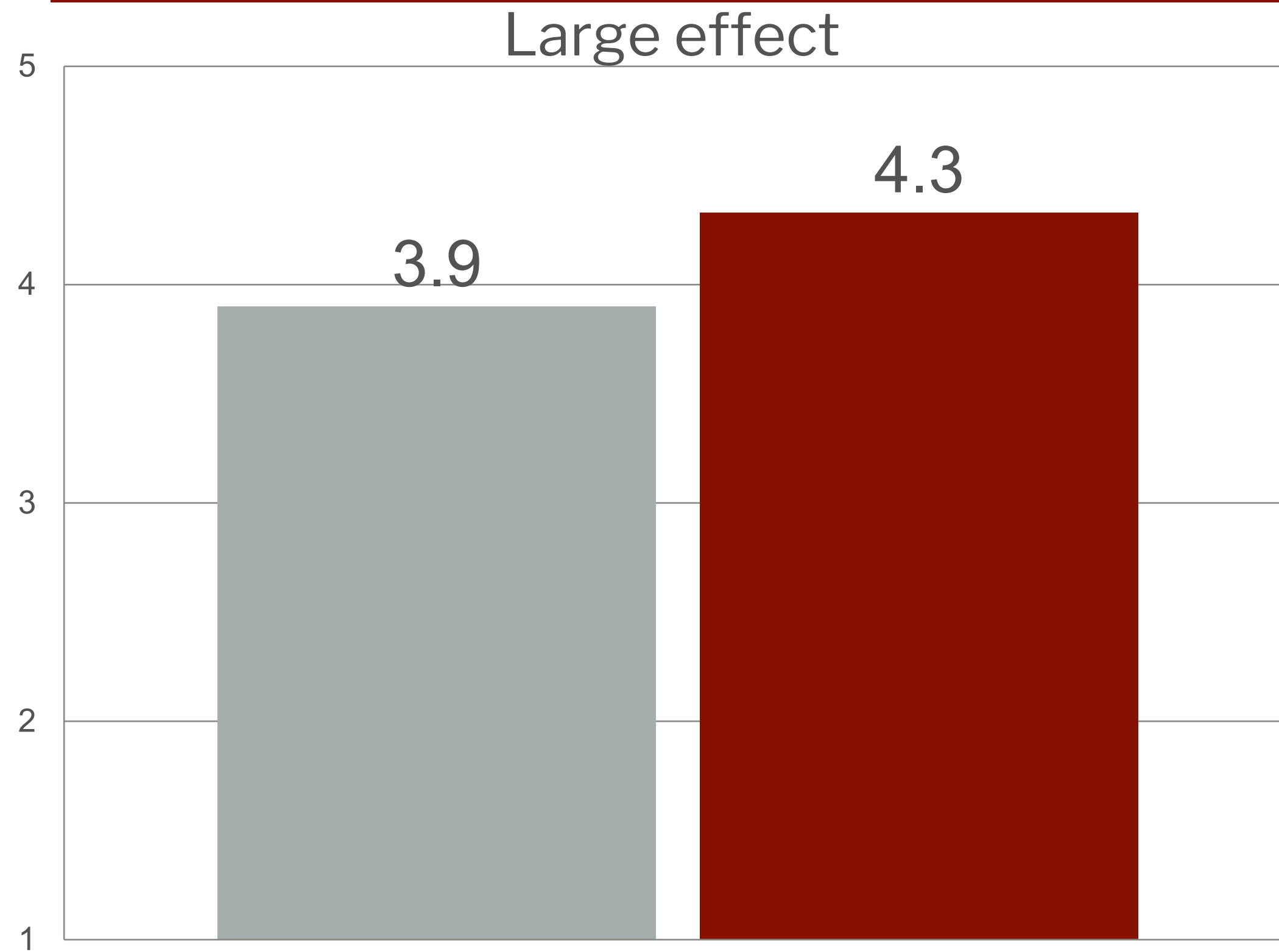
Small effect



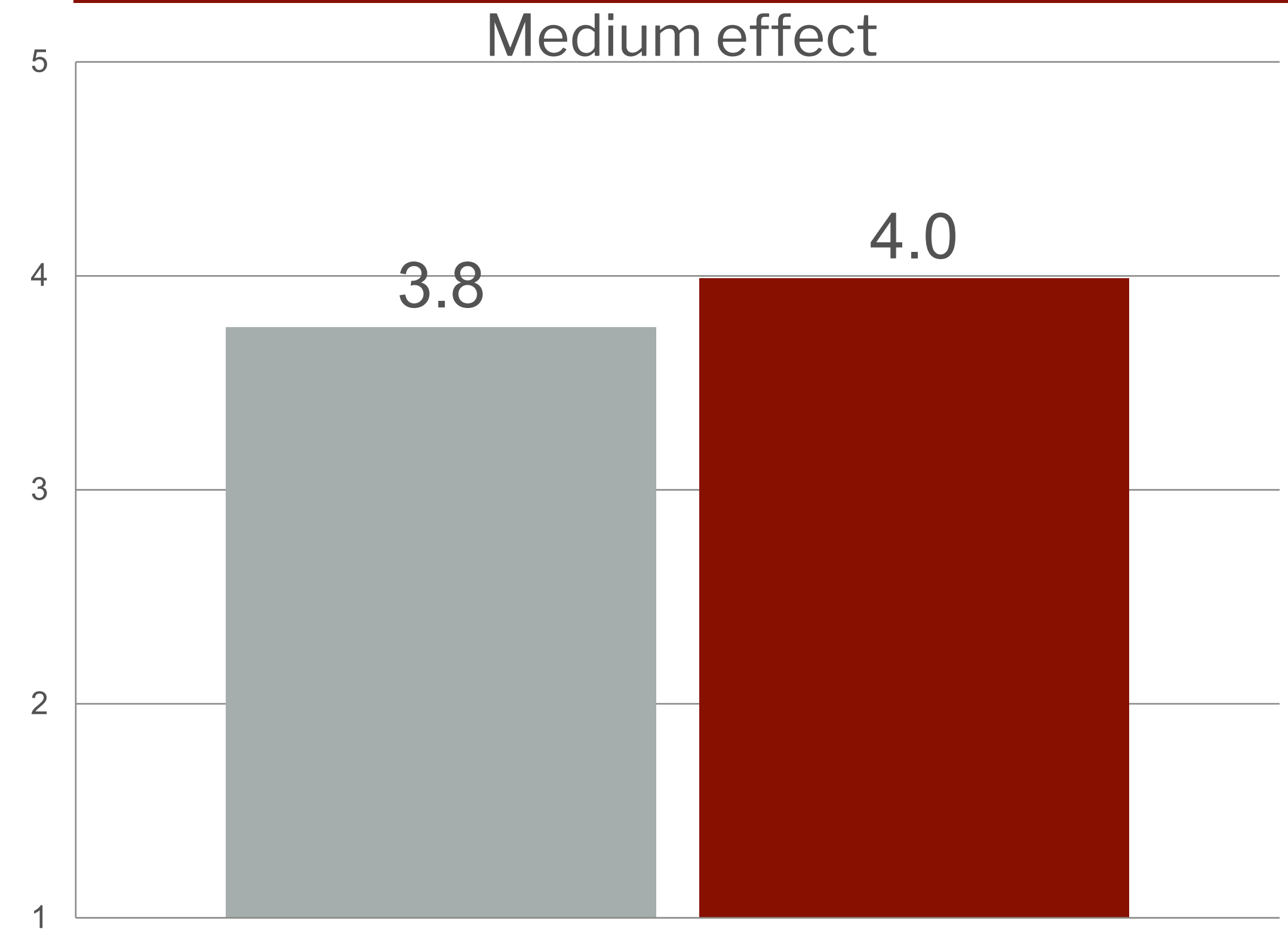
* p<.05; **p<.01; ***p<.001

SAMPLE: SUPPORT FOR REFORM

Viewers recruited from Exposure Labs had greater support for platform design changes***



Viewers recruited from Exposure Labs had greater support for regulations***



* p<.05; **p<.01; ***p<.001

Qualtrics Exposure Labs



62



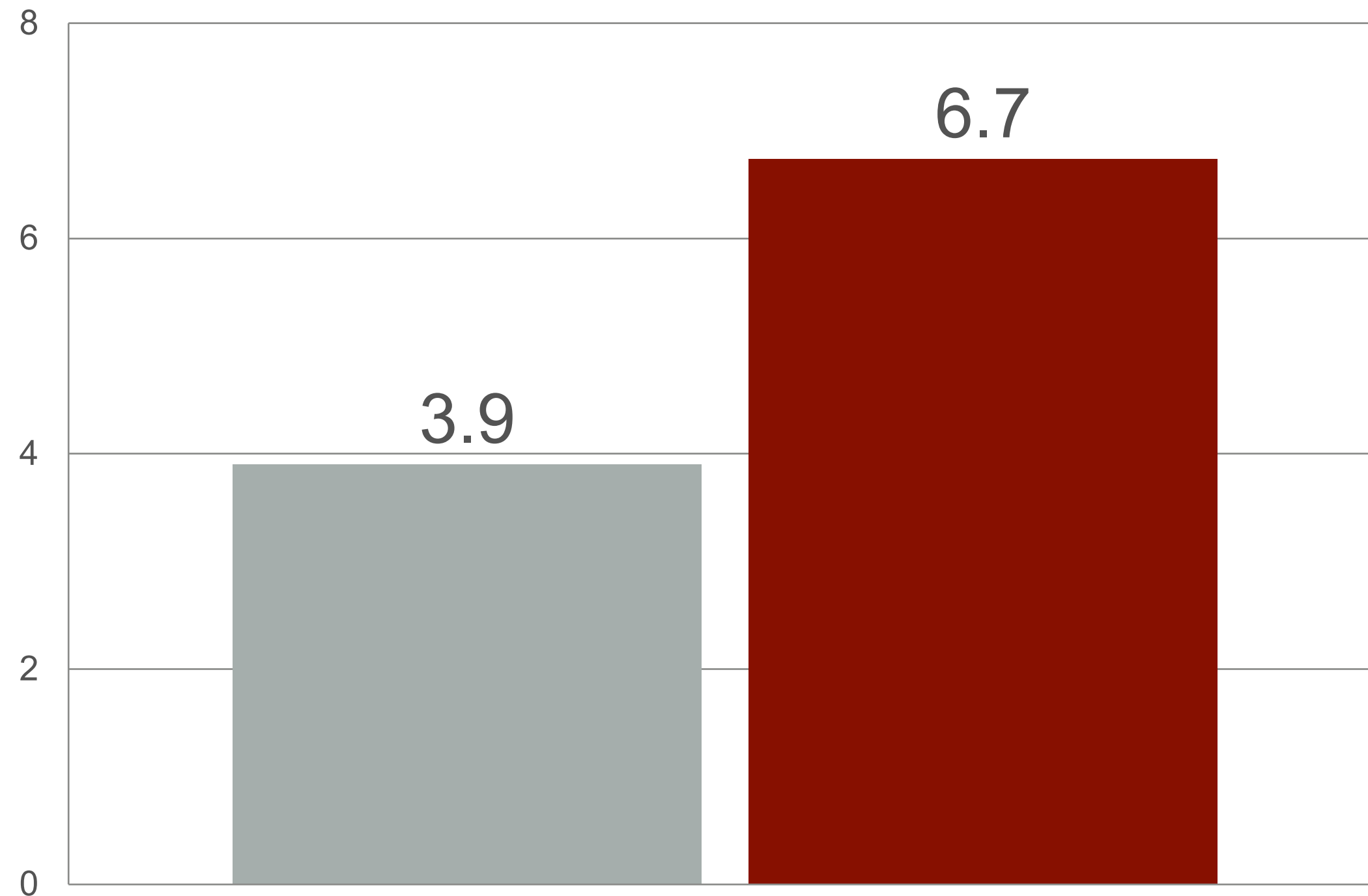
The Social Dilemma by Exposure Labs

www.mediaimpactproject.org

SAMPLE: ACTIONS TAKEN

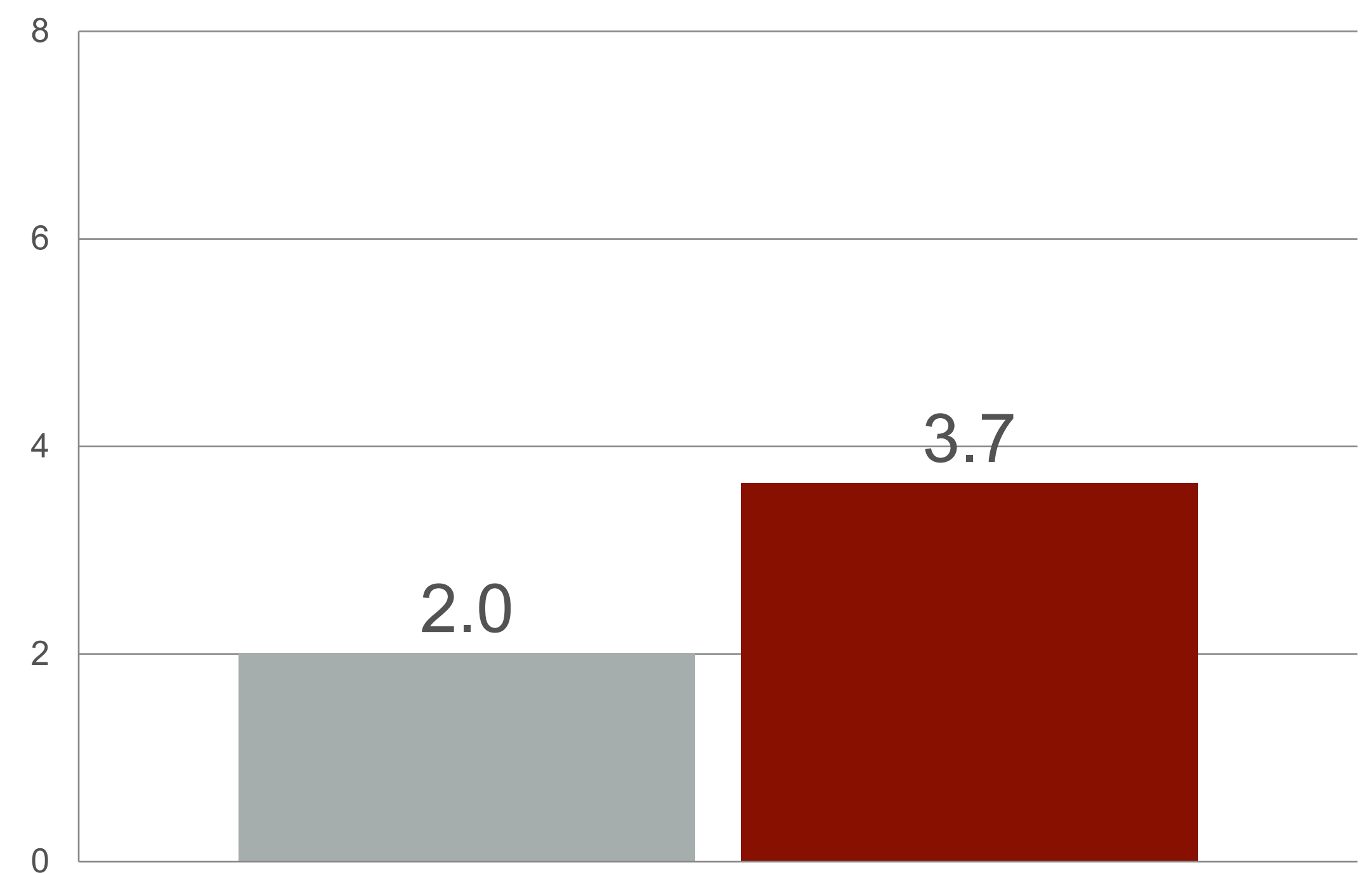
Viewers recruited from Exposure Labs took more individual technology restriction actions***

Extremely large effect



Viewers recruited from Exposure Labs took more campaign actions***

Extremely large effect



* p<.05; **p<.01; ***p<.001

Qualtrics Exposure Labs



63



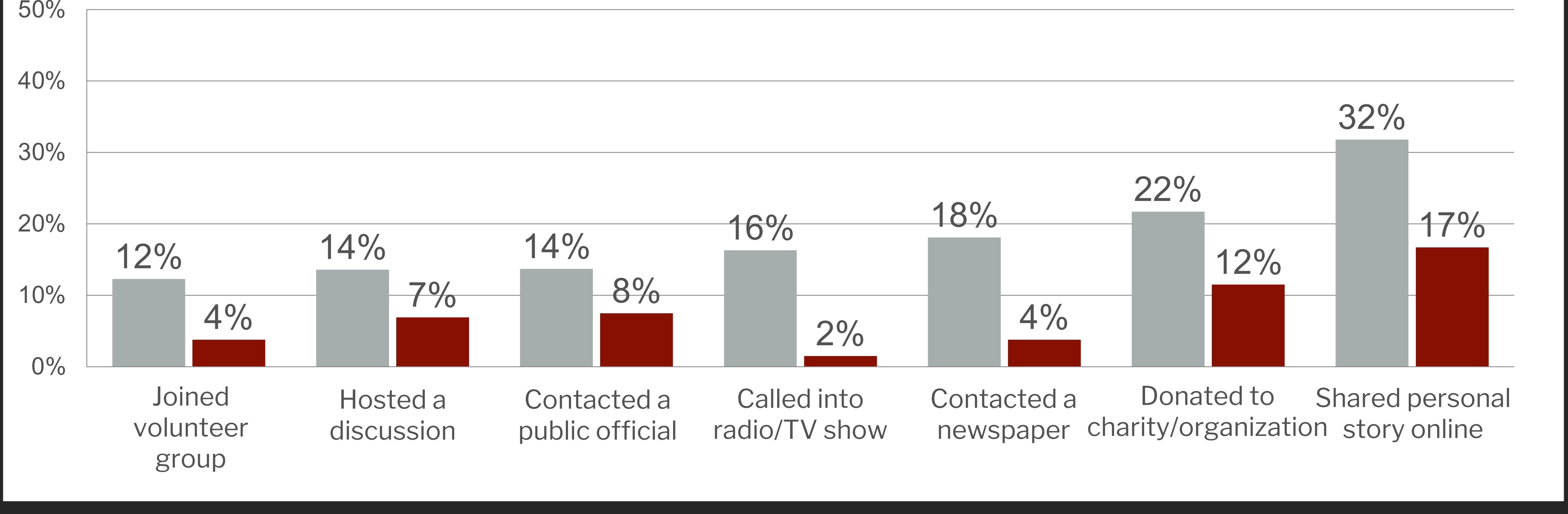
The Social Dilemma by Exposure Labs

www.mediaimpactproject.org

SAMPLE: CIVIC ENGAGEMENT ACTIONS

Viewers recruited from Qualtrics were more likely to take several civic engagement actions***

Small effects

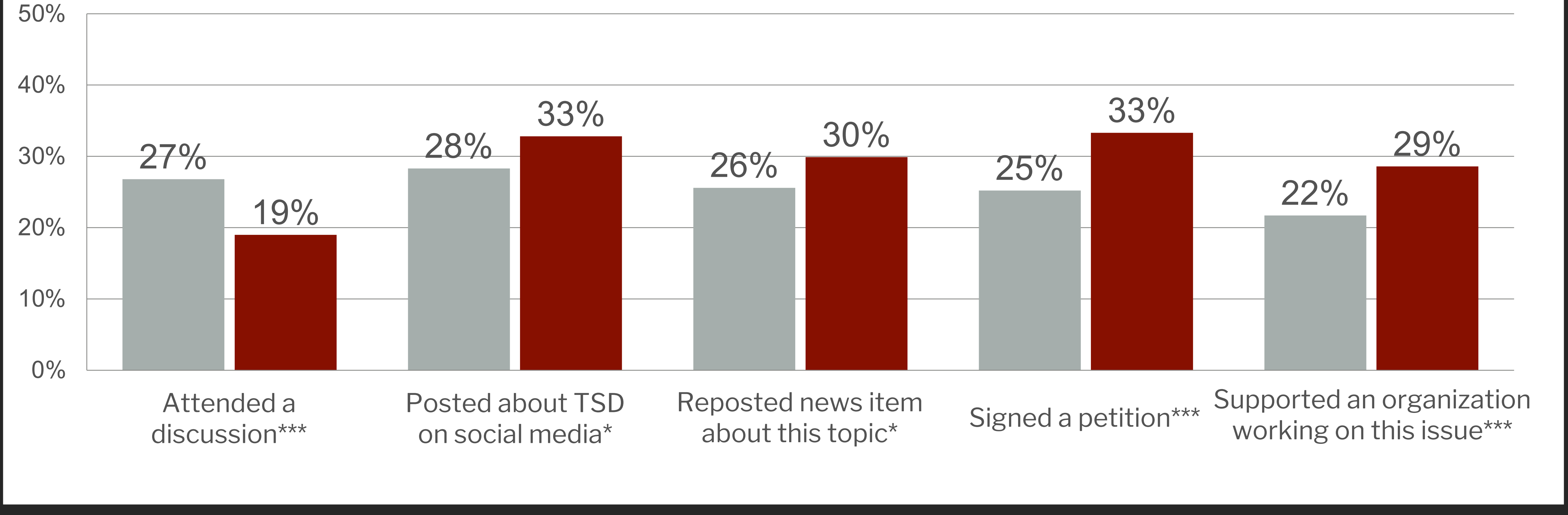


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

SAMPLE: CIVIC ENGAGEMENT ACTIONS

Viewers recruited from ELabs were more likely to take some of the civic engagement actions

< Small effects



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

Qualtrics Exposure Labs

CAMPAIGN PARTICIPANTS

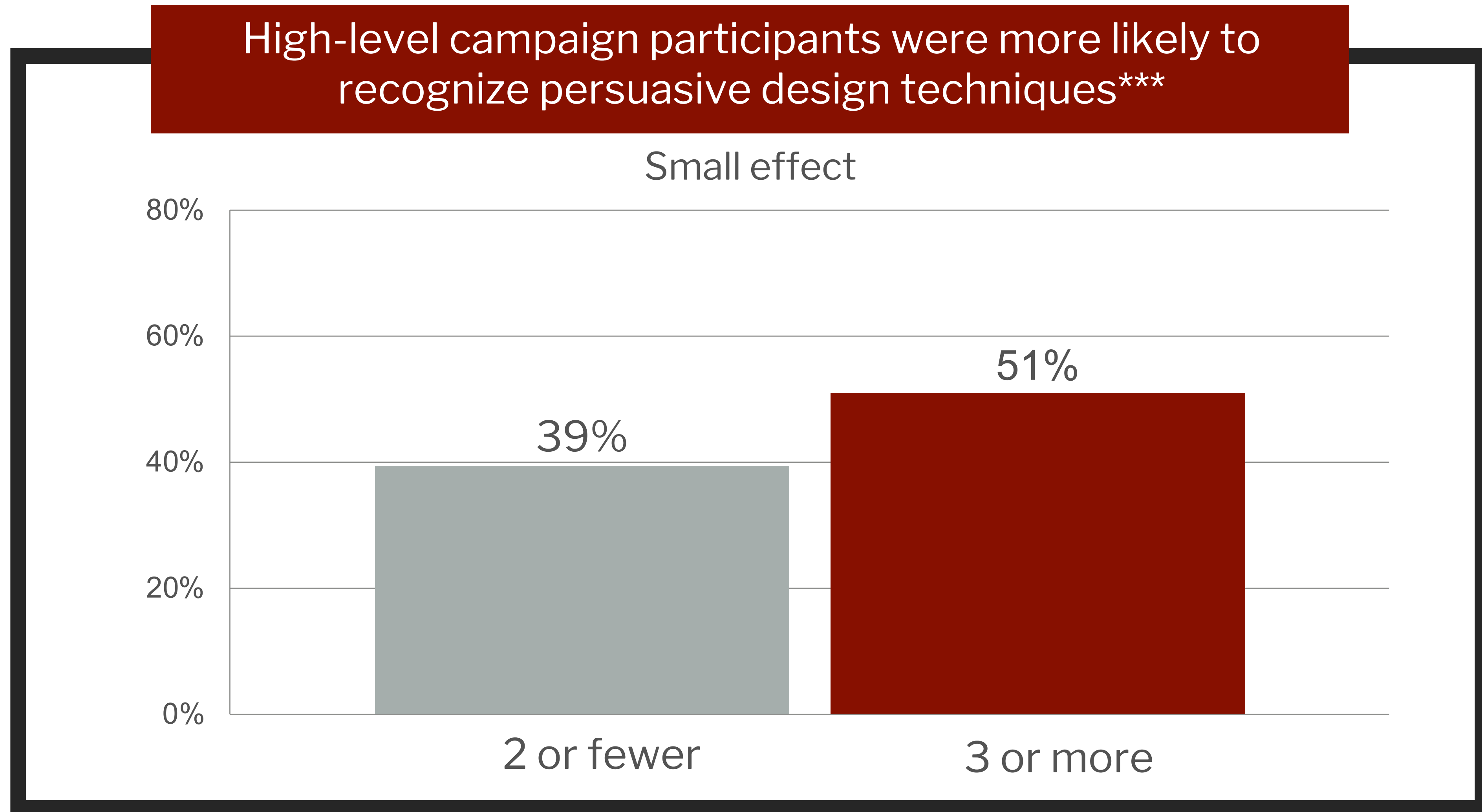


Significant impacts:

Viewers who took three or more campaign actions (compared to viewers who took zero, one or two):

- Were more knowledgeable persuasive design techniques
- Showed greater support for design changes and regulatory efforts
- Rated TSD more successful at showing personal and societal impacts

CAMPAIGN PARTICIPANTS: KNOWLEDGE

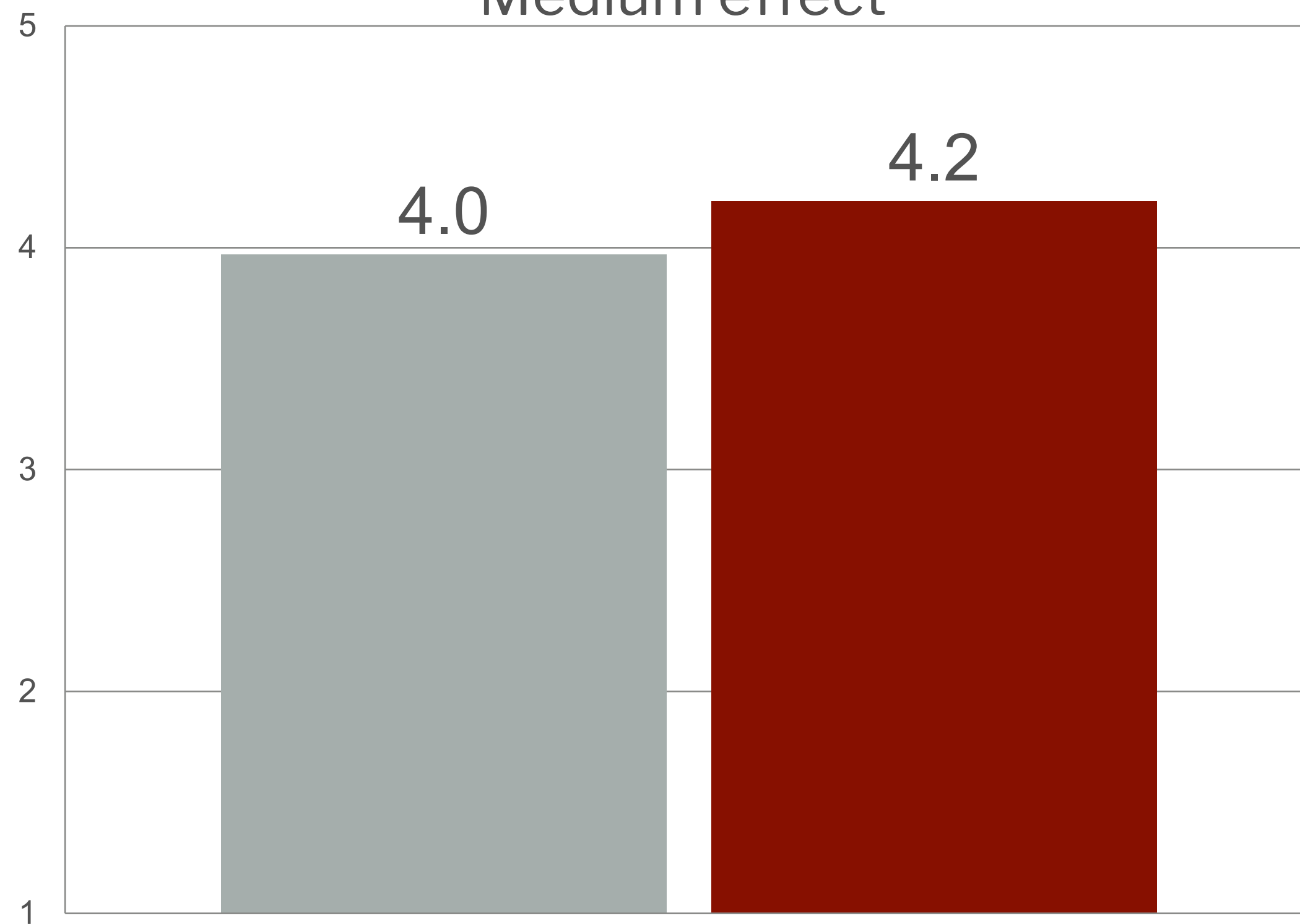


*Significant ($p < .05$); **Highly significant ($p < .01$); ***Very highly significant ($p < .001$)

CAMPAIGN PARTICIPANTS: REFORM

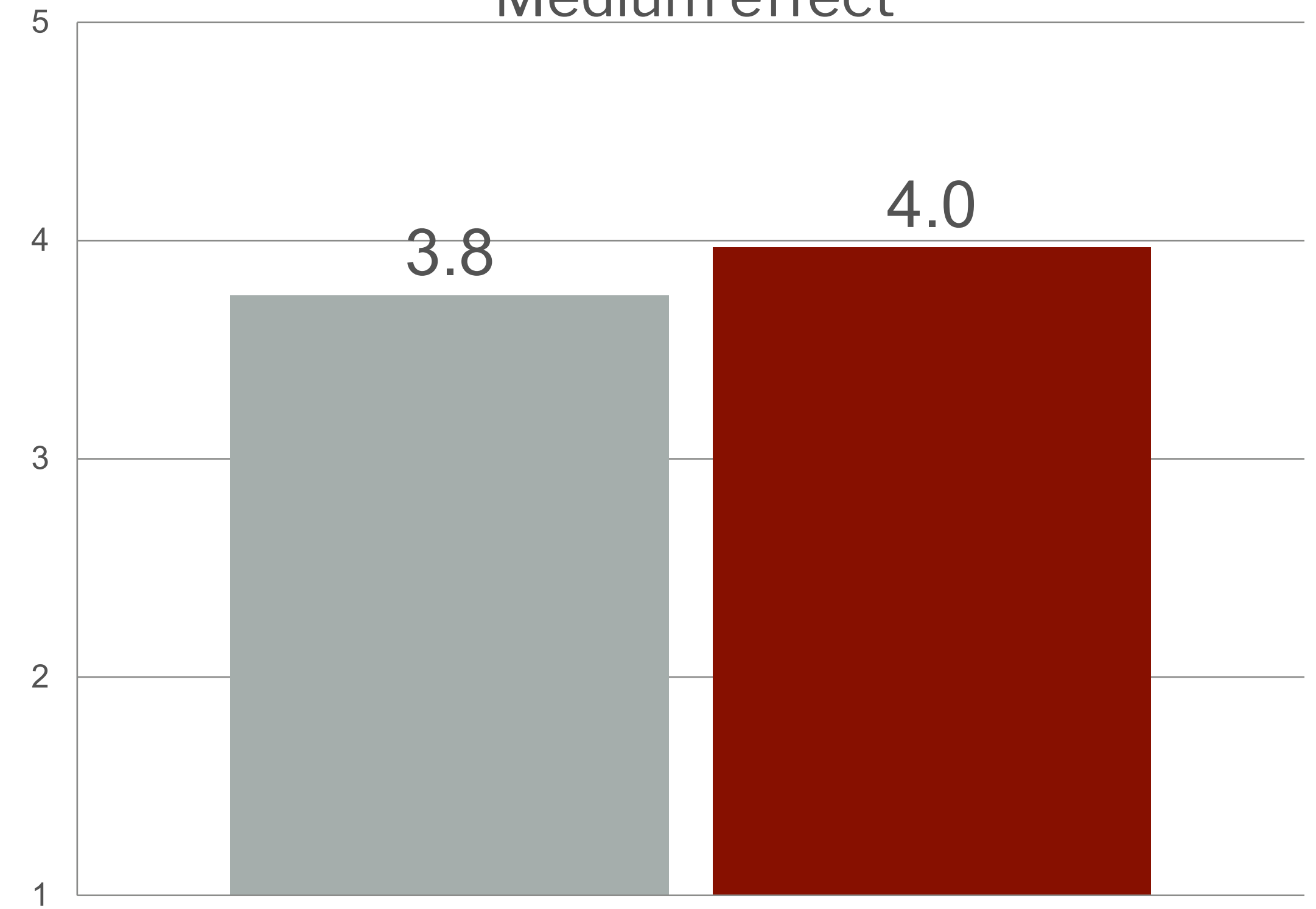
High-level campaign participants had greater support for platform design changes***

Medium effect



High-level campaign participants had greater support for regulations***

Medium effect



* p<.05; **p<.01; ***p<.001

Two or fewer 3 or more

The Social Dilemma by Exposure Labs

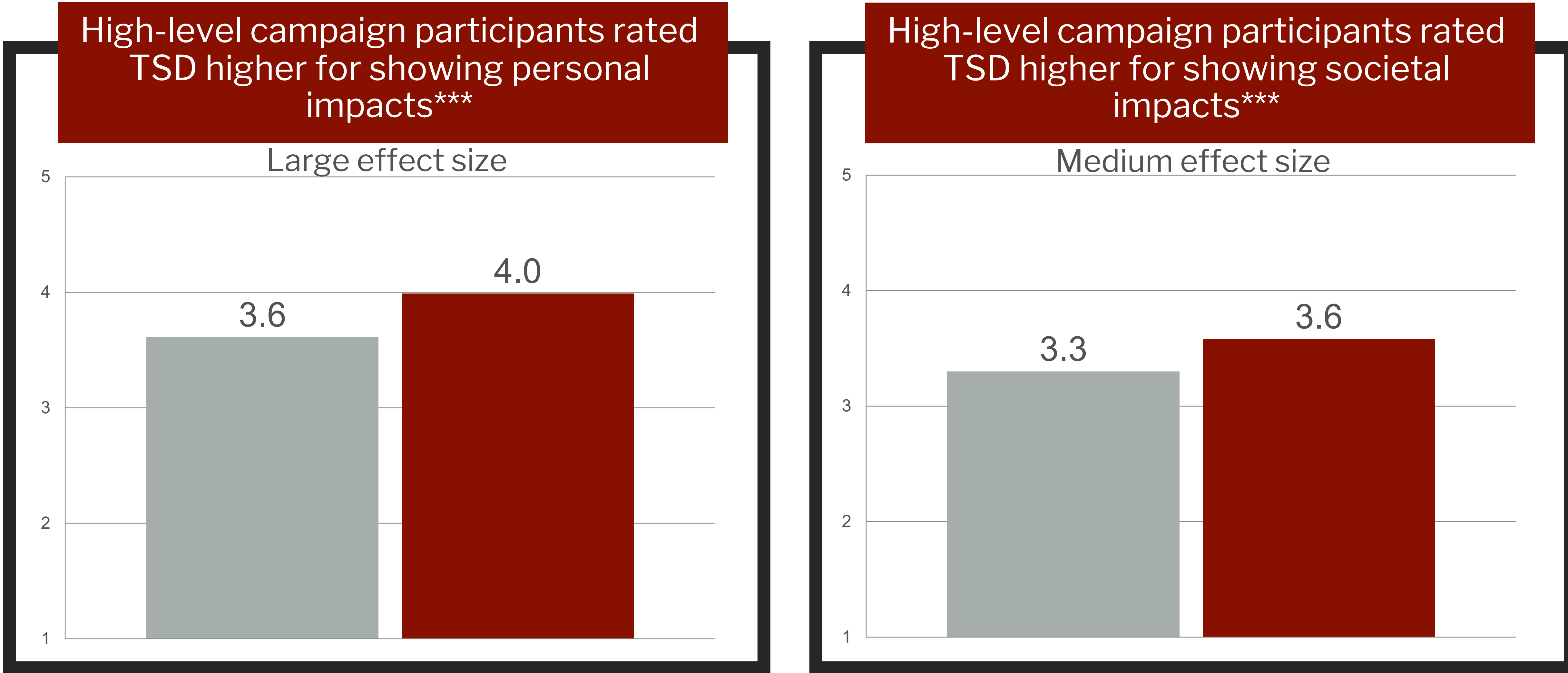


68



www.mediaimpactproject.org

CAMPAIGN PARTICIPANTS: PERCEIVED IMPACT



* p<.05; **p<.01; ***p<.001

PARENT STATUS



Significant impacts:

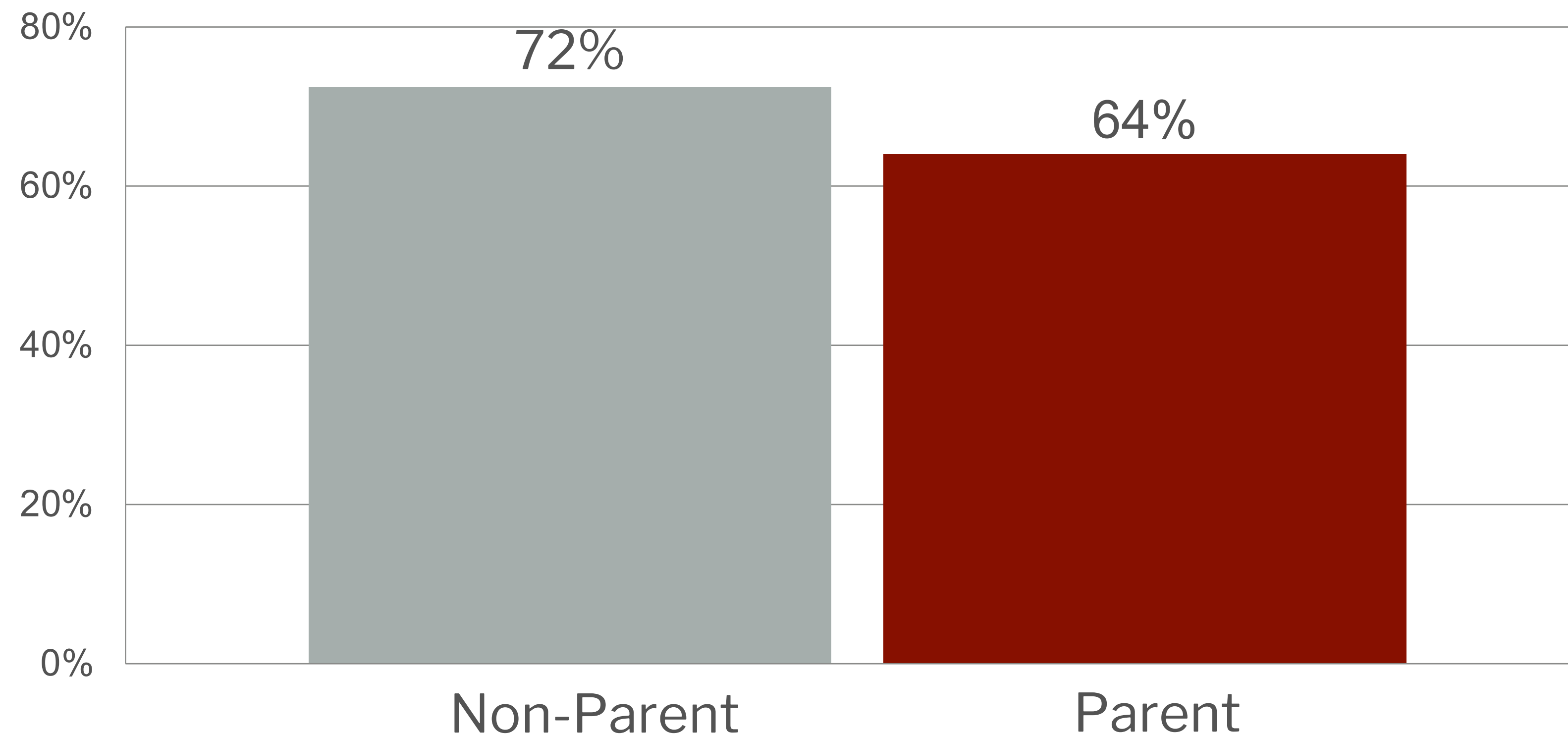
Parent viewers (compared to non-parent viewers):

- Were less knowledgeable about how tech companies monetize user attention and persuasive design techniques
- Were more likely to say social media has “mostly positive” effects
- Took fewer individual technology restrictions but more civic engagement actions
- Rated TSD more successful at showing personal and societal impacts

PARENTS: KNOWLEDGE

Parent viewers were less likely to know how tech companies monetize user attention***

< Small effect

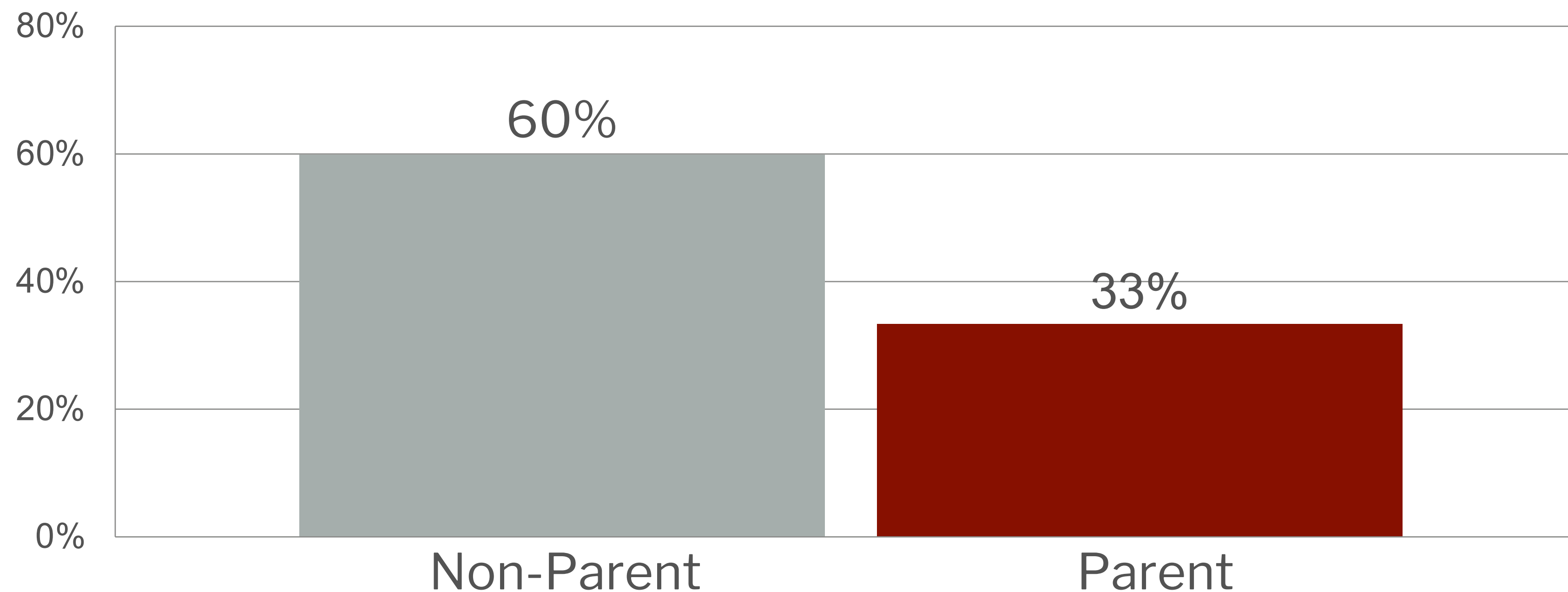


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

PARENTS: KNOWLEDGE

Parent viewers were less likely to recognize persuasive design techniques***

Medium effect

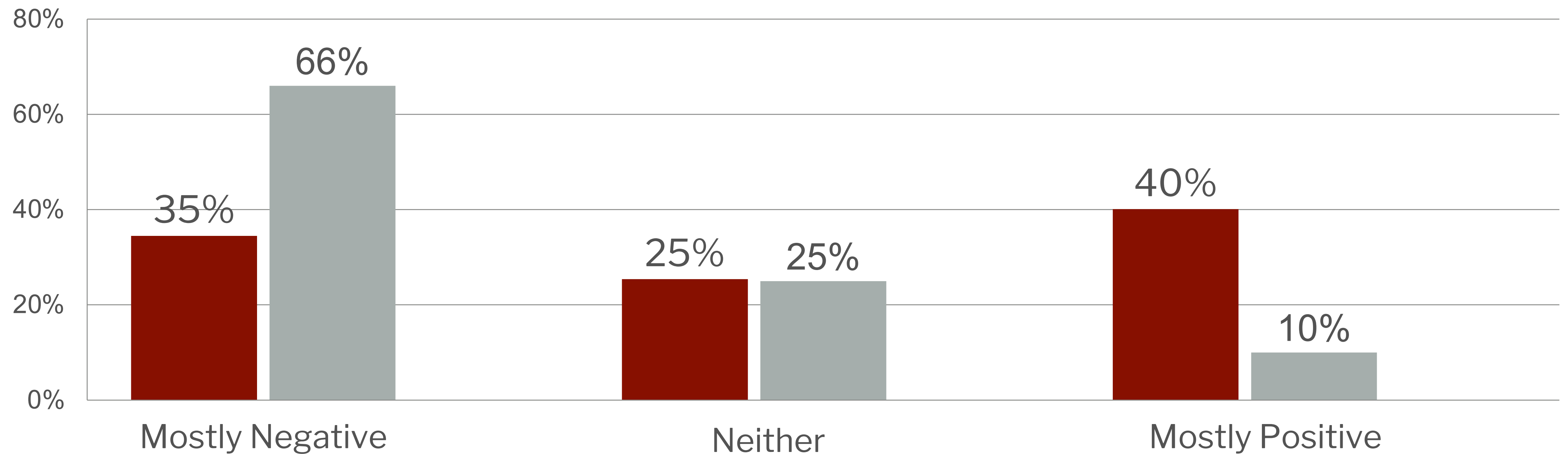


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

PARENTS: ATTITUDES

Parent viewers were more likely to say social media has “mostly positive” effects***

Large effect



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

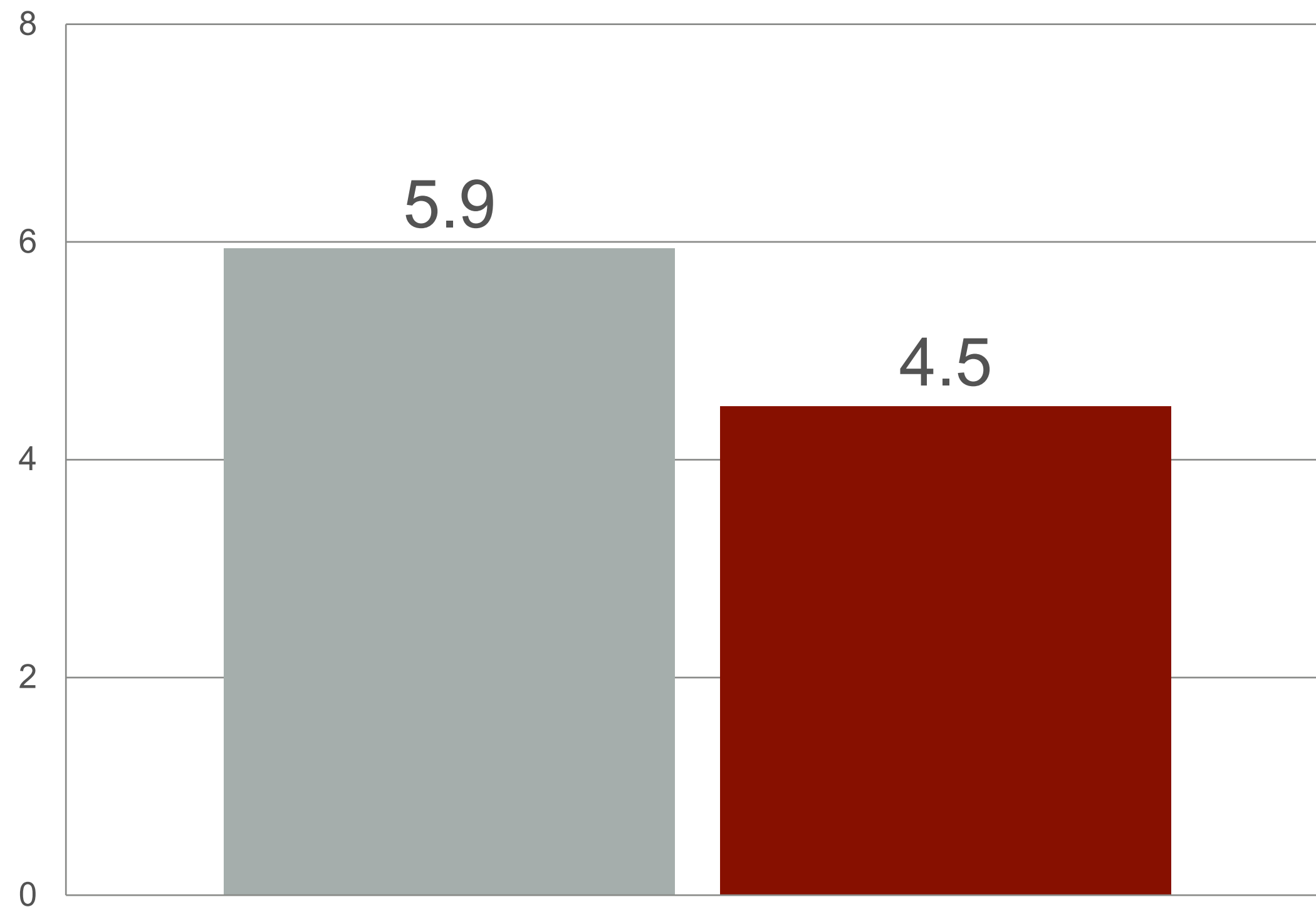
Non-Parent Parent



PARENTS: ACTIONS

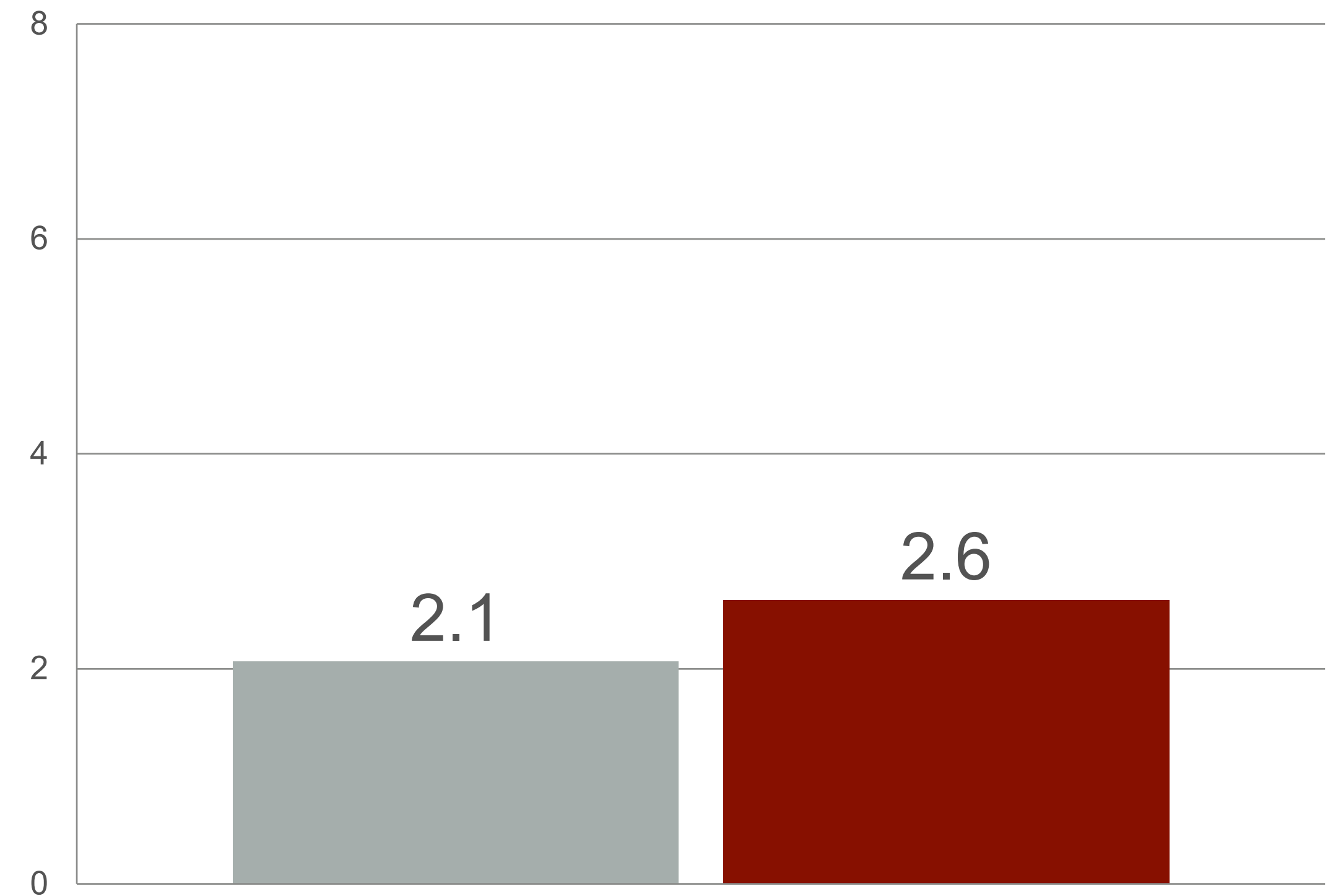
Parent viewers took fewer individual technology restriction actions***

Large effect



Parent viewers took more civic engagement actions***

Small effect



* p<.05; **p<.01; ***p<.001

Non-Parent Parent



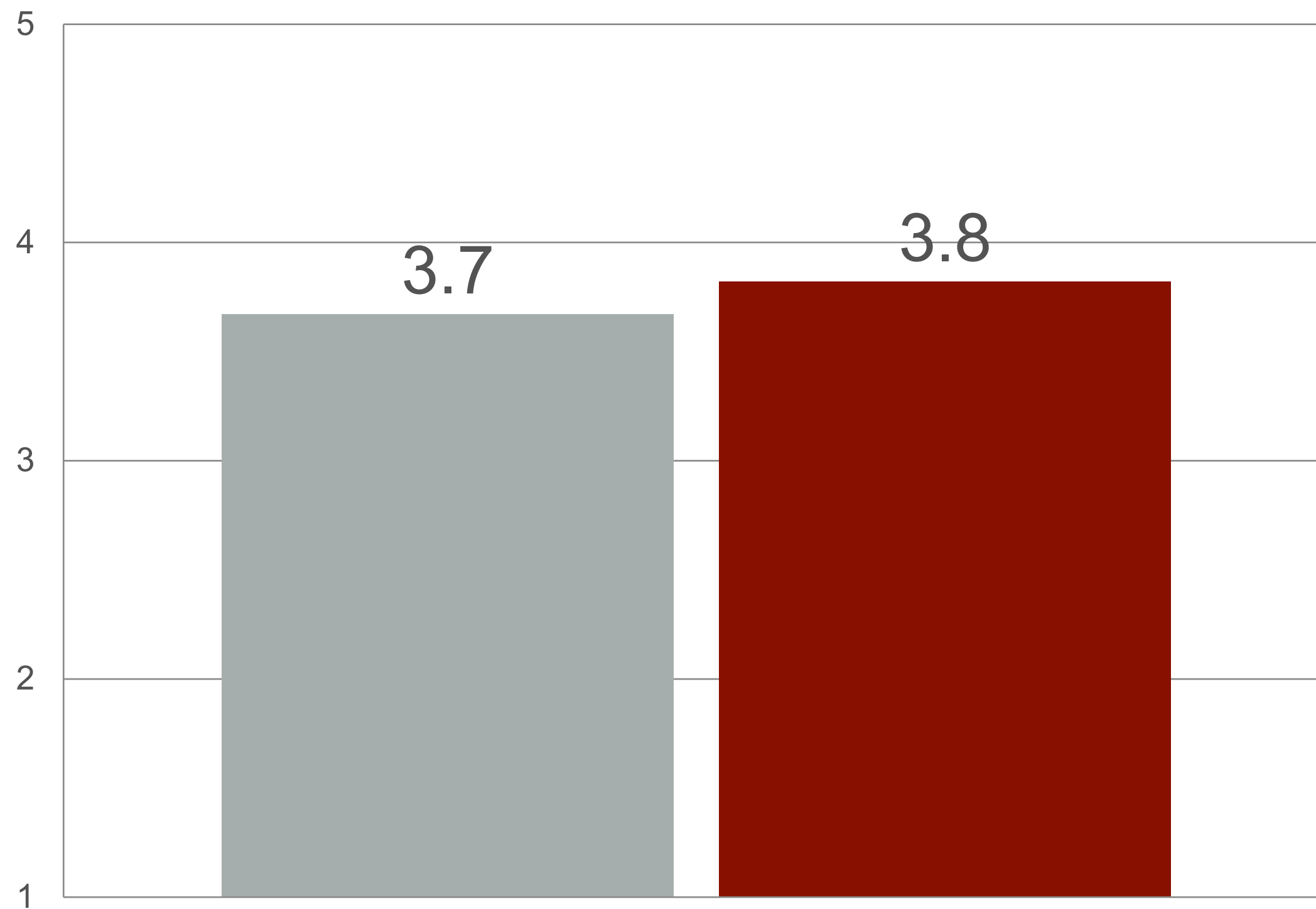
74



PARENTS: PERCEIVED IMPACT

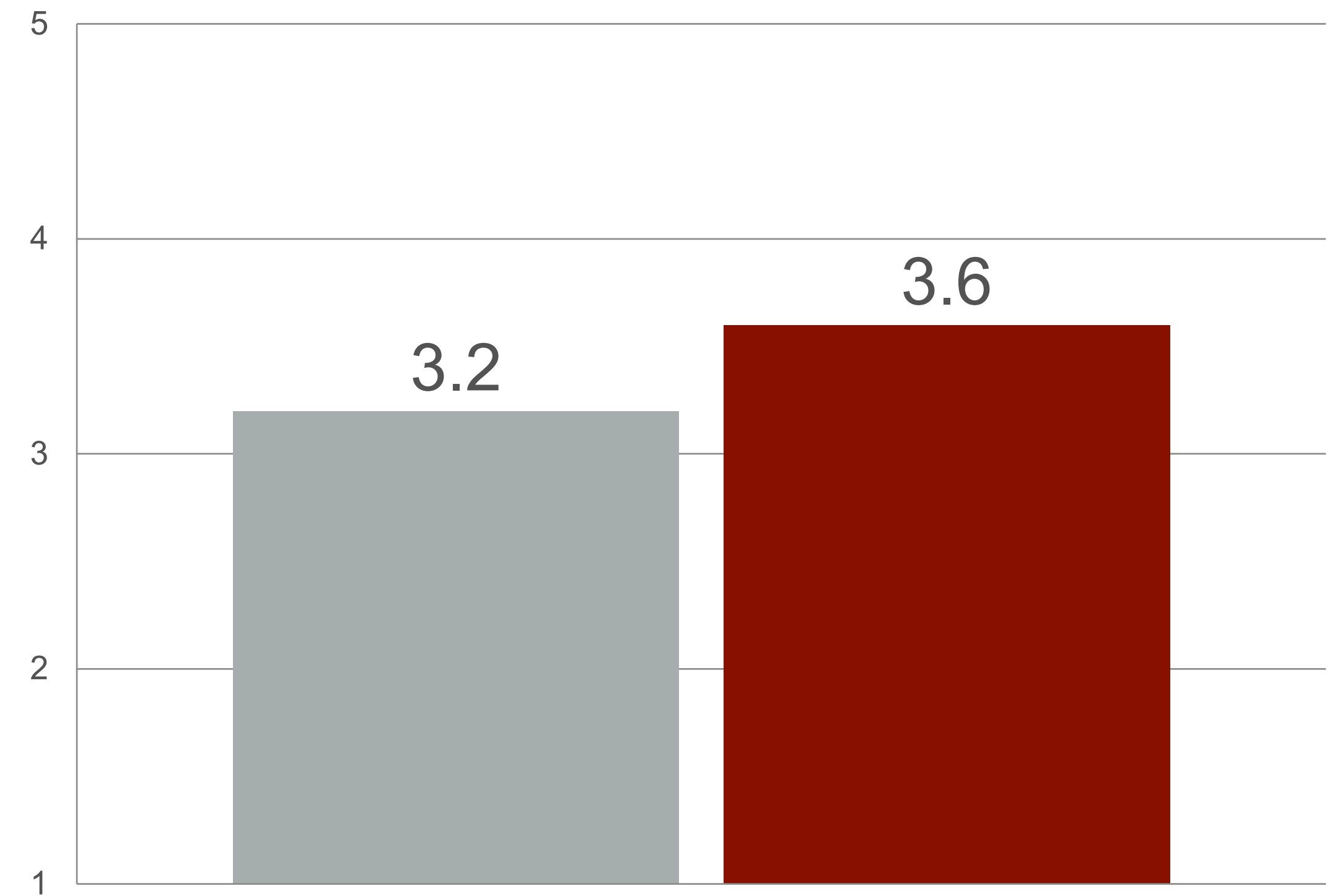
Parents rated TSD more successful at showing personal impacts***

Small effect



Parents rated TSD more successful at showing societal impacts***

Small effect



* p<.05; **p<.01; ***p<.001

Non-Parent Parent



75



The Social Dilemma by Exposure Labs

www.mediaimpactproject.org

PARENT STATUS



We expected the film would be more impactful for parents, but the opposite was true in most cases. Why?

Age differences:

- 77% of parents were aged 35-60 vs. 35% of non-parents
- Viewers under age 35 generally had more positive outcomes, though small effects

Sample differences:

- 72% of parents came from Qualtrics vs. 40% of non-parents
- Viewers from Exposure Labs generally had more positive outcomes, with a few exceptions

PARENT STATUS



To understand whether viewing TSD truly had a differential impact on parents vs. non-parents, we did a deeper dive within the matched PSM sample for key outcomes

For individual technology restriction actions:

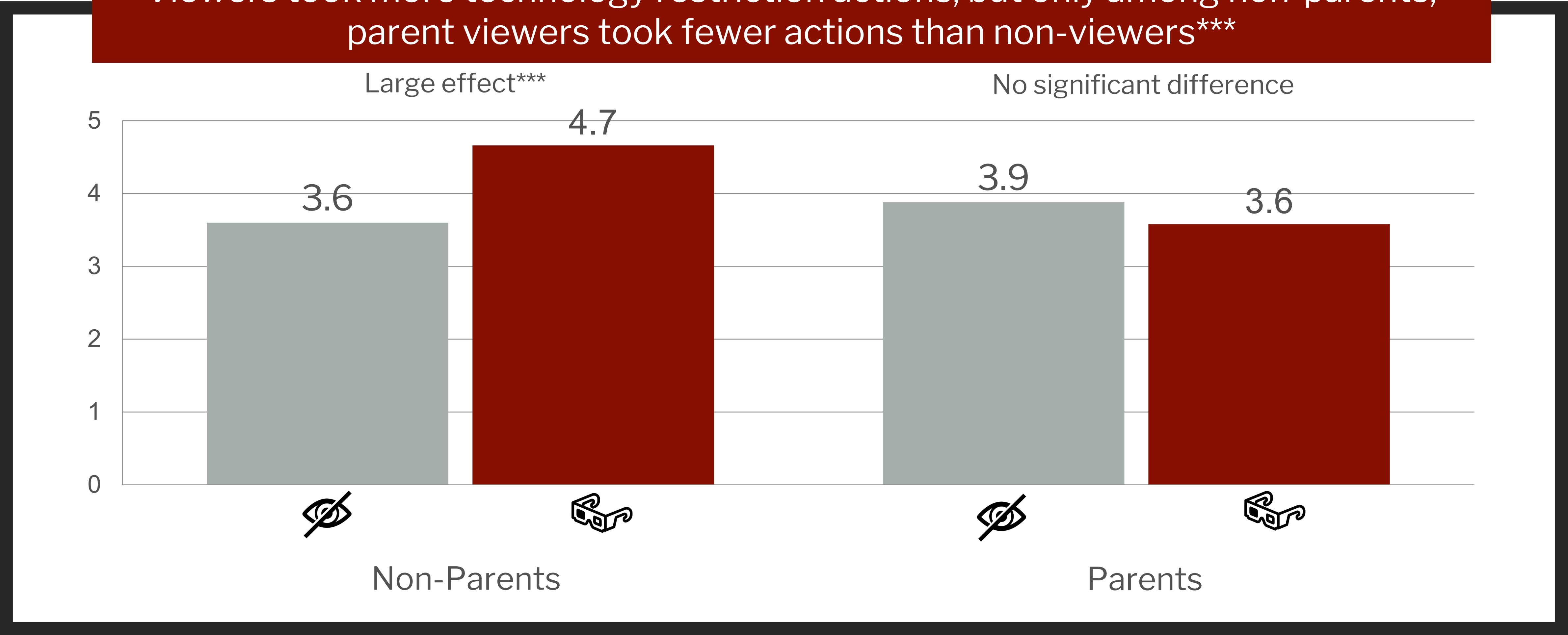
- Viewing TSD had a positive impact only for non-parents

For civic engagement actions:

- Viewing TSD had a positive impact only for parents

PARENTS: INDIVIDUAL TECHNOLOGY ACTIONS

Viewers took more technology restriction actions, but only among non-parents; parent viewers took fewer actions than non-viewers***

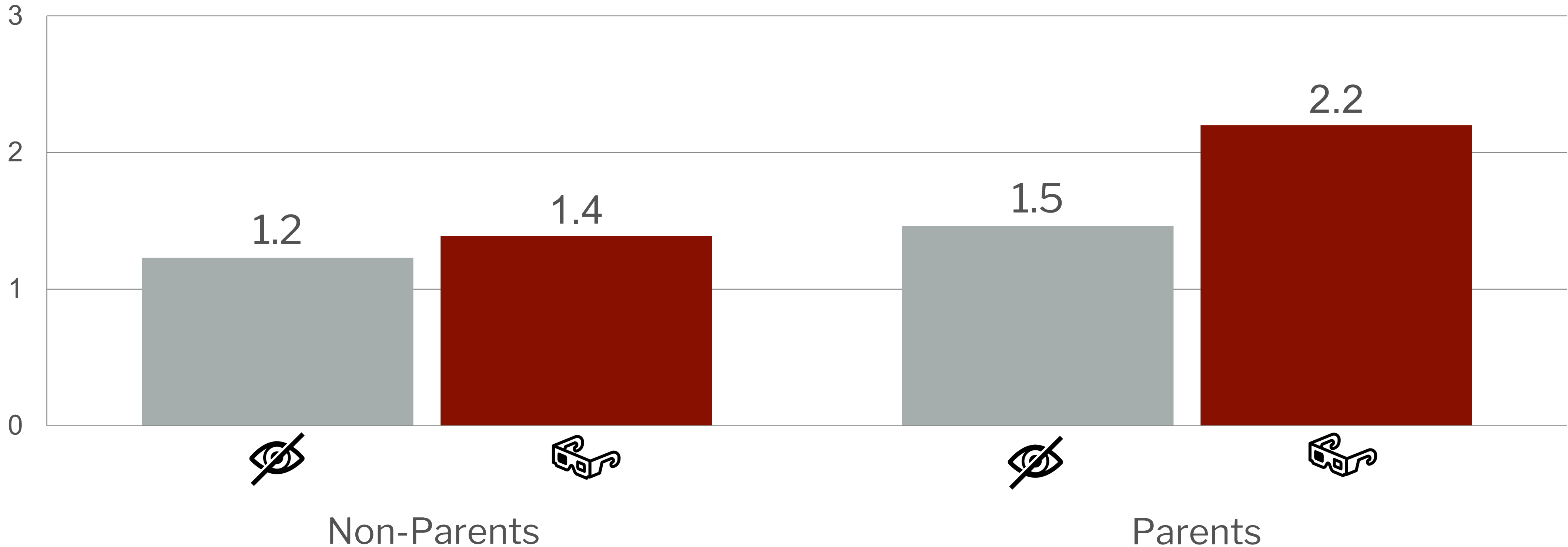


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

PARENTS: CIVIC ENGAGEMENT ACTIONS

Viewers took more civic engagement actions, but only among parents**

< Small effect



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)



RQ4.
WHAT ARE THE
MECHANISMS UNDERLYING
TSD'S IMPACT?

AFRAID



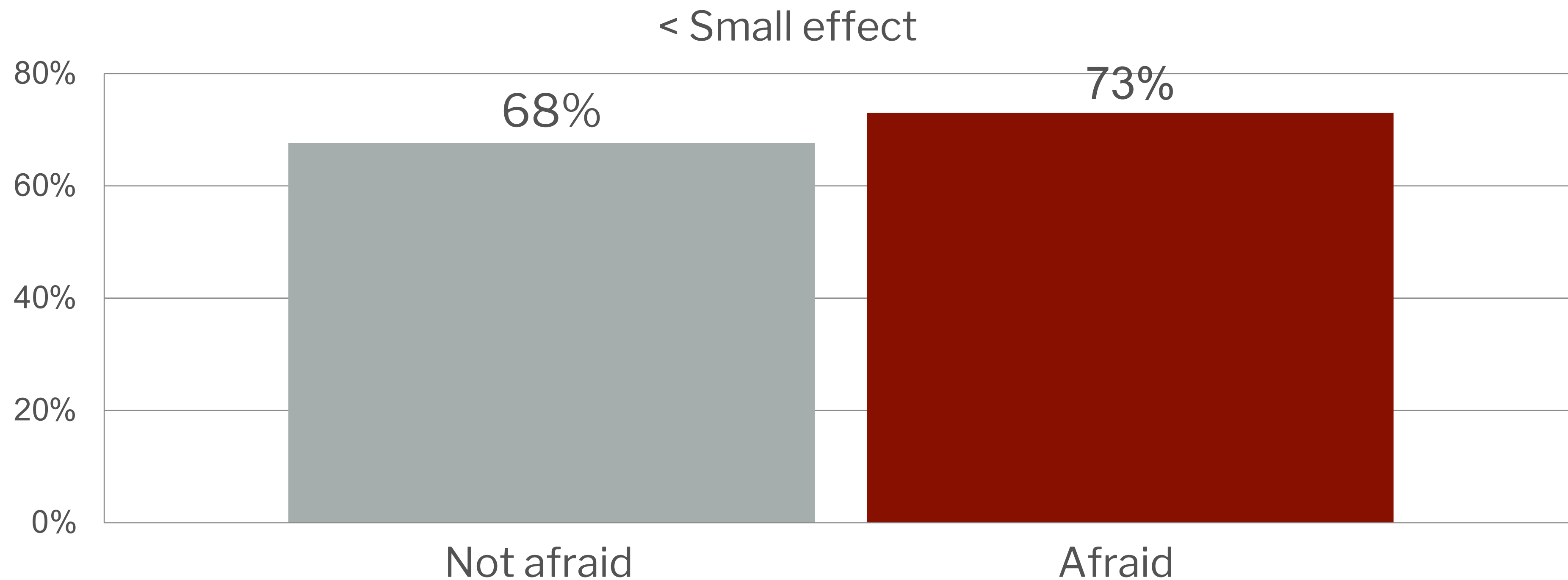
Significant impacts:

Viewers who felt afraid while watching TSD:

- Were more knowledgeable about how tech companies monetize user attention and persuasive design techniques
- Were more likely to say social media has “mostly negative” effects
- Held social media more responsible for Jan 6
- Had greater support for design changes and regulatory efforts
- Took more individual technology restriction actions
- Rated TSD more successful at showing personal impacts

AFRAID: KNOWLEDGE

Viewers who felt afraid were more likely to know how tech companies monetize user attention*

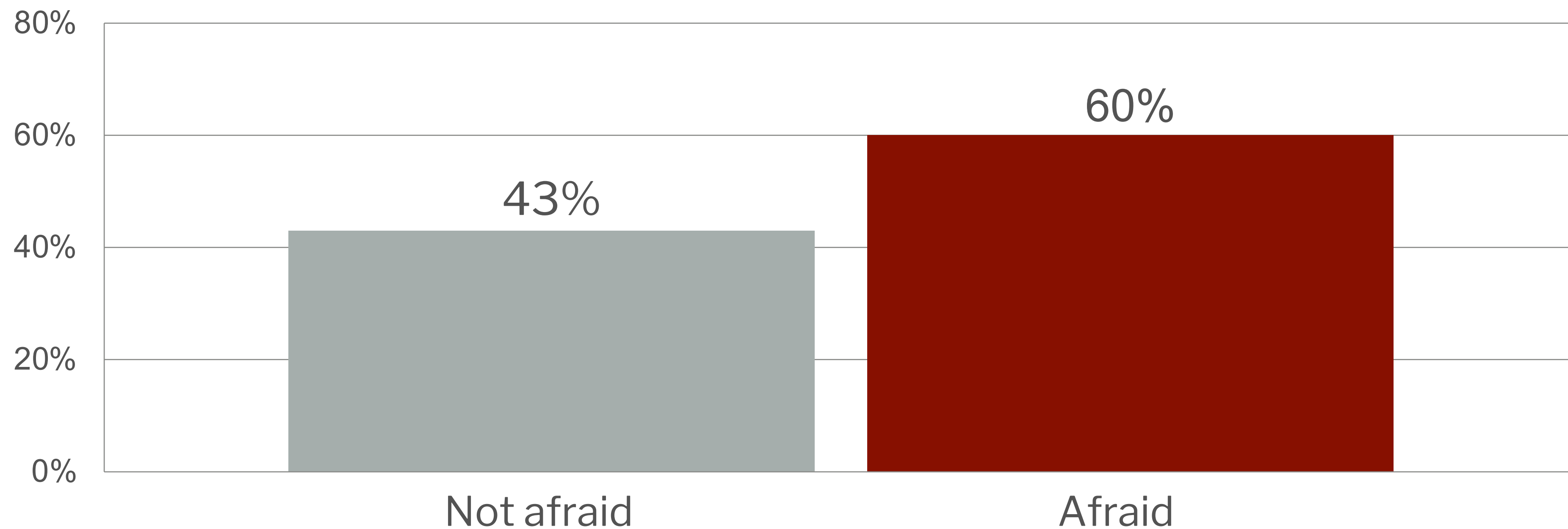


*Significant ($p < .05$); **Highly significant ($p < .01$); ***Very highly significant ($p < .001$)

AFRAID: KNOWLEDGE

Viewers who felt afraid were more likely to recognize persuasive design techniques***

Small effect

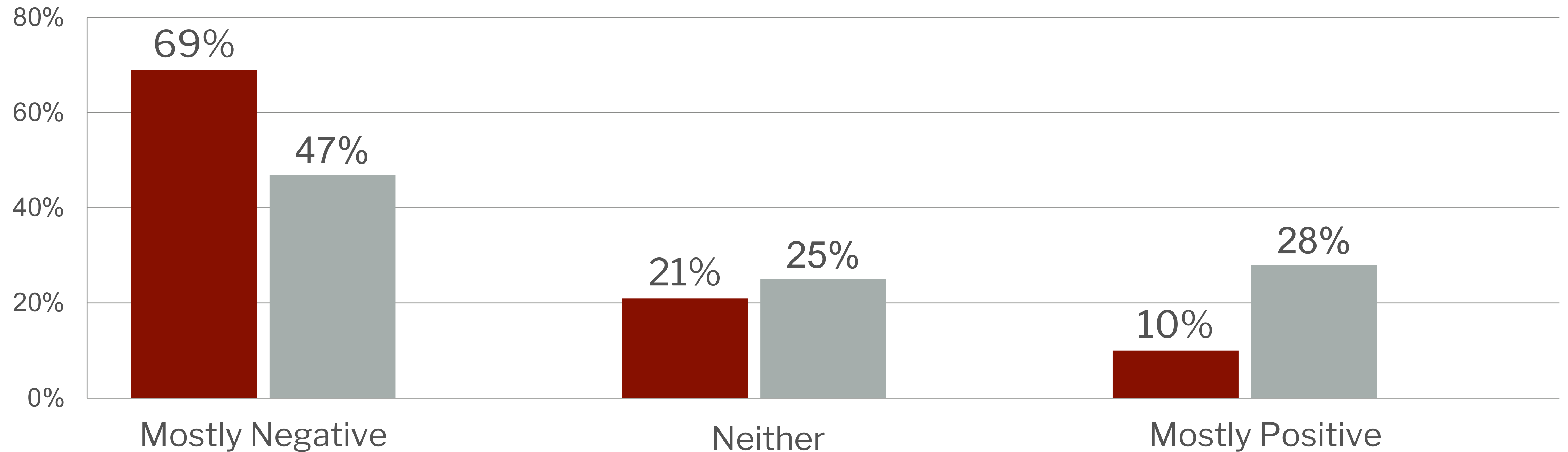


*Significant ($p < .05$); **Highly significant ($p < .01$); ***Very highly significant ($p < .001$)

AFRAID: ATTITUDES

Viewers who felt afraid were more likely to say social media has mostly negative effects***

Medium effect



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

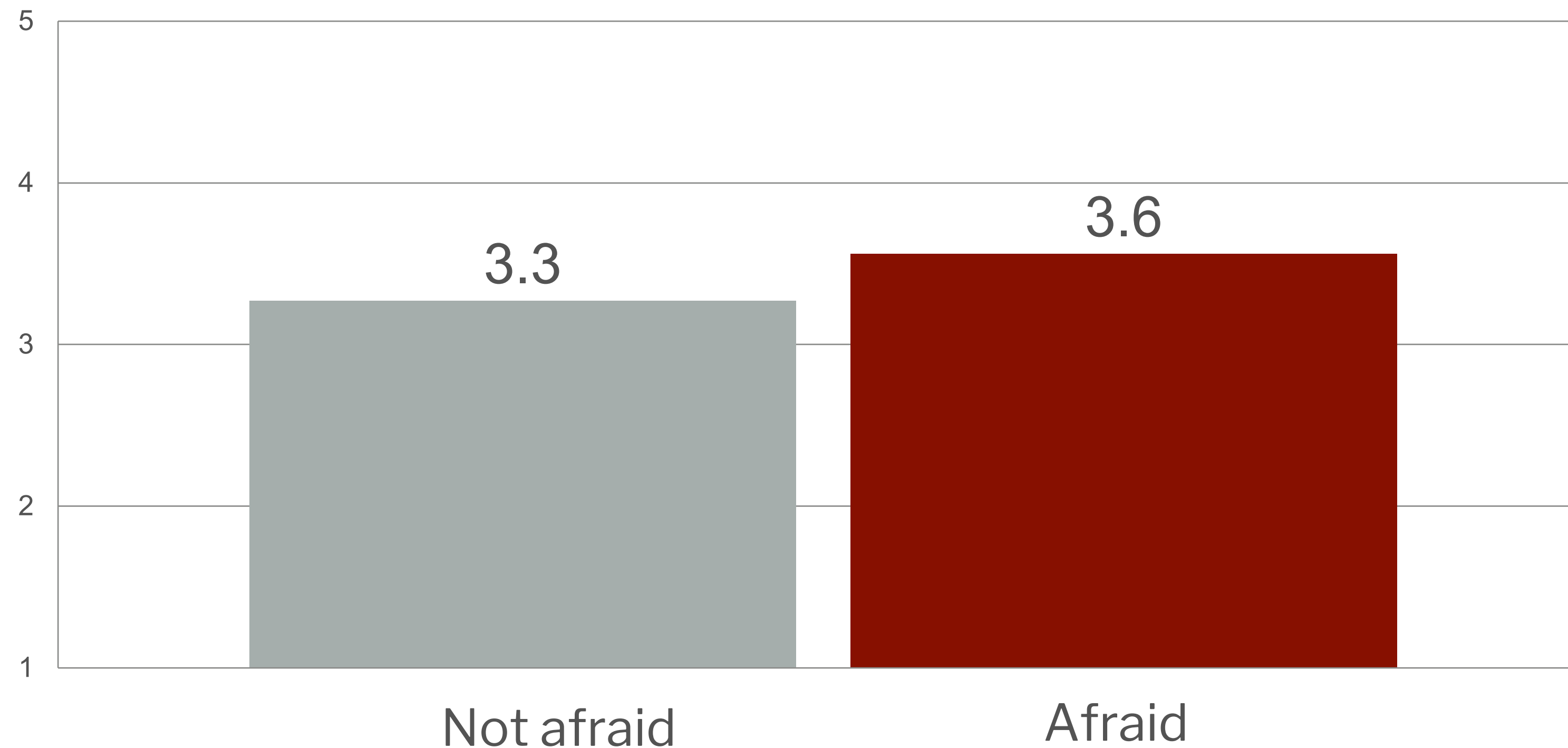
Not Afraid Afraid



AFRAID: JAN 6 RESPONSIBILITY

Viewers who felt afraid held social media more responsible for the events of Jan 6***

Medium effect

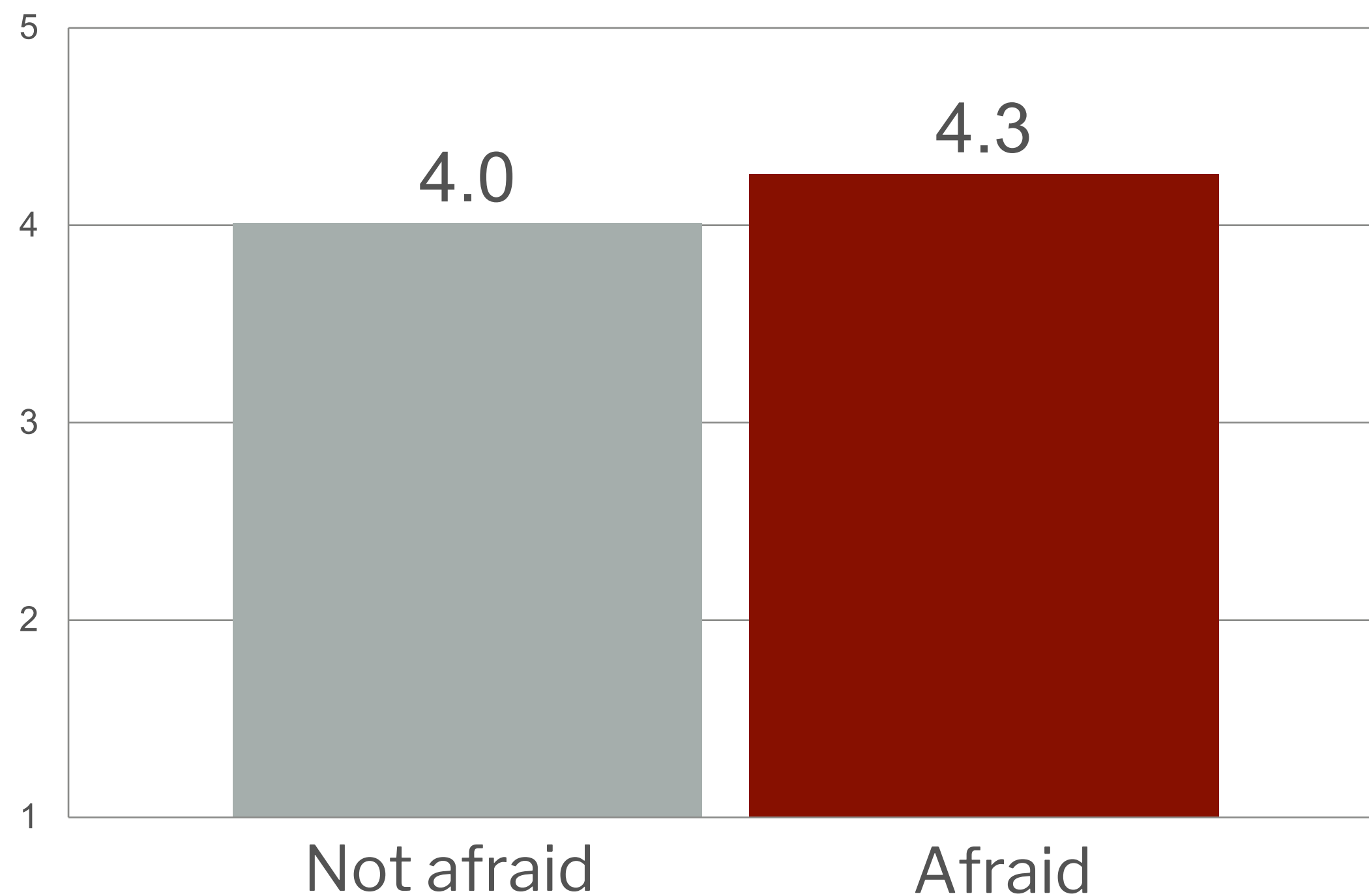


* p<.05; **p<.01; ***p<.001

AFRAID: SUPPORT FOR REFORM

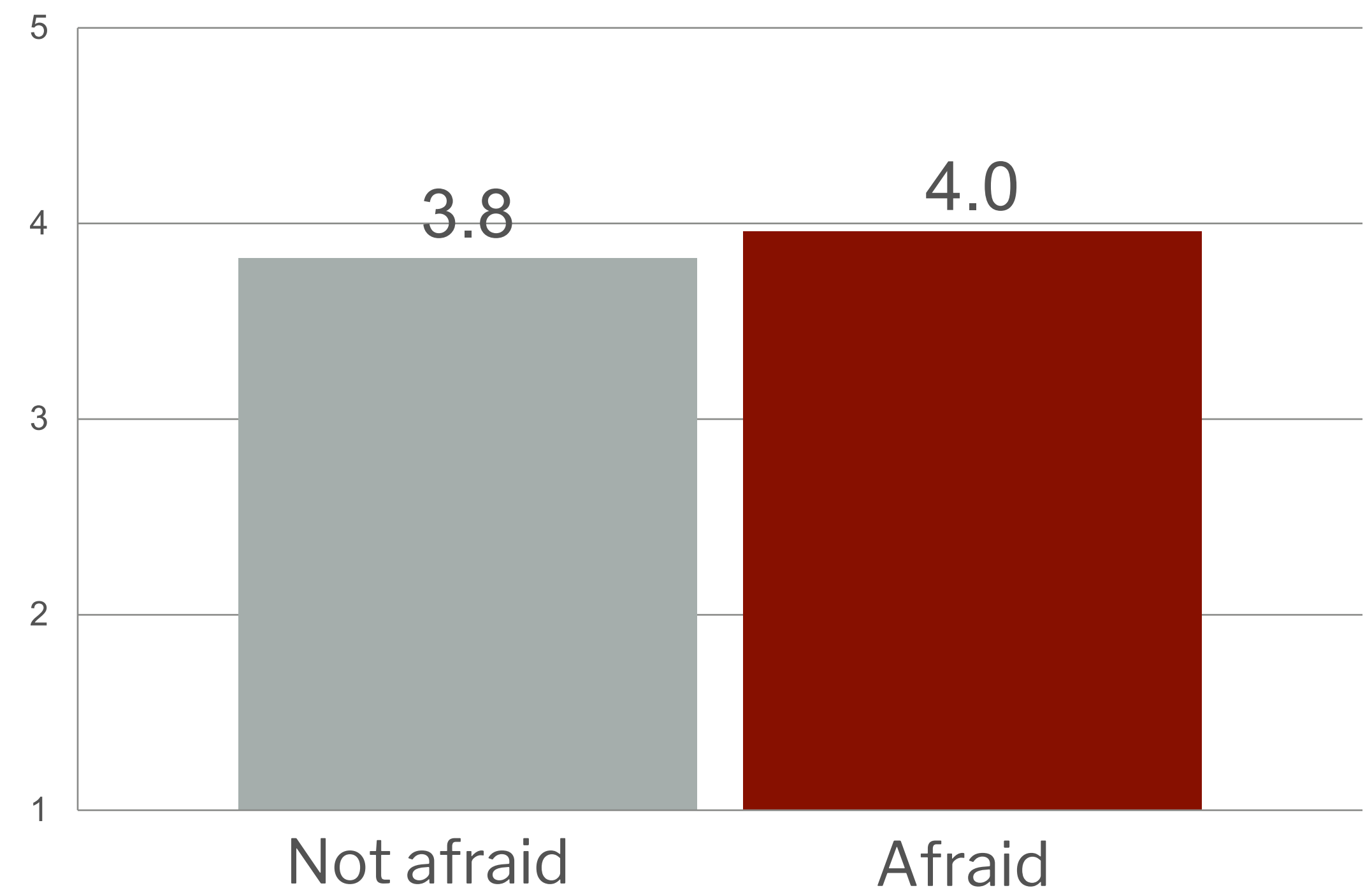
Viewers who felt afraid had greater support for platform design changes***

Medium effect



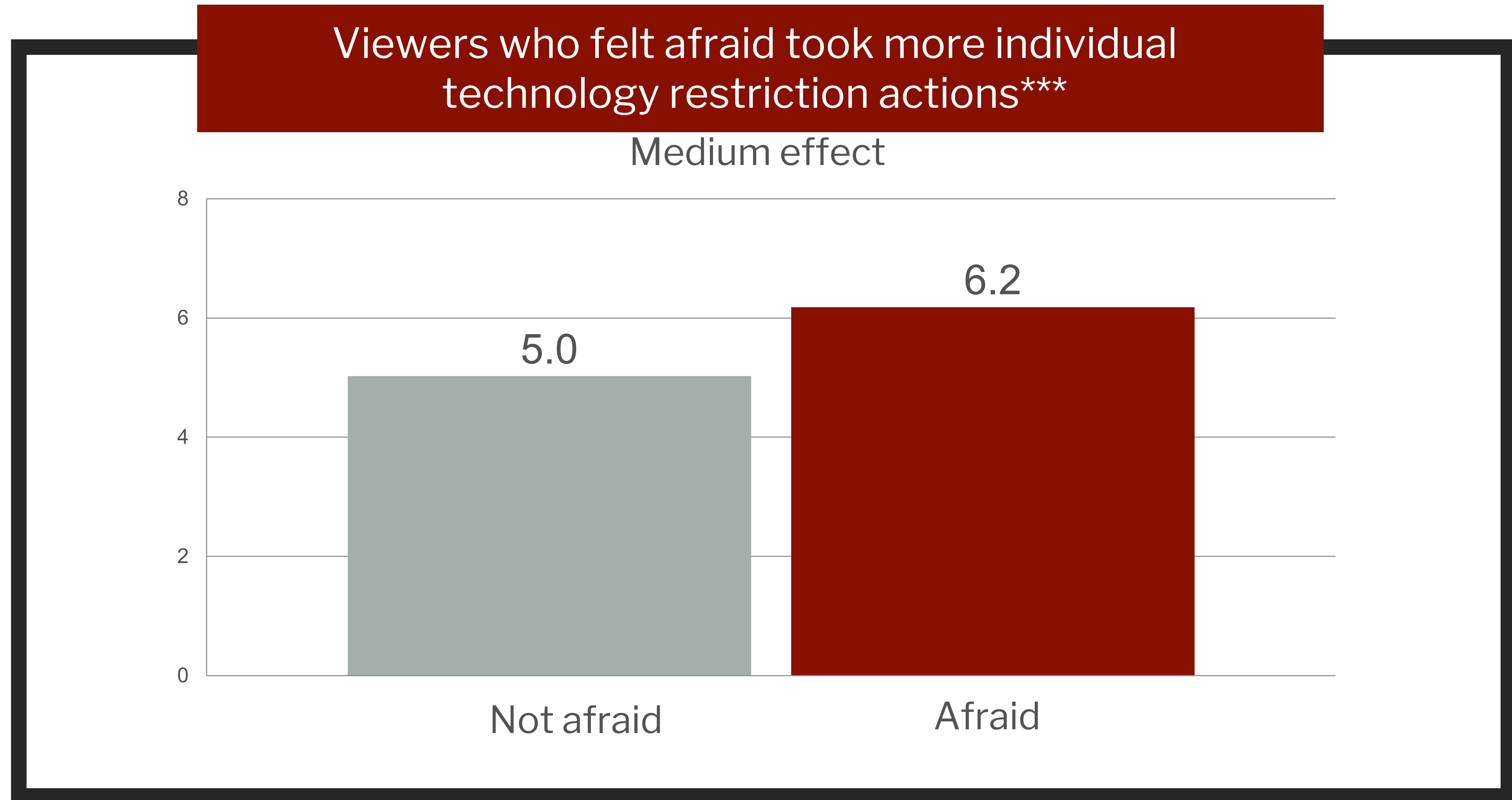
Viewers who felt afraid had greater support for regulation***

Small effect



* p<.05; **p<.01; ***p<.001

AFRAID: INDIVIDUAL TECHNOLOGY ACTIONS

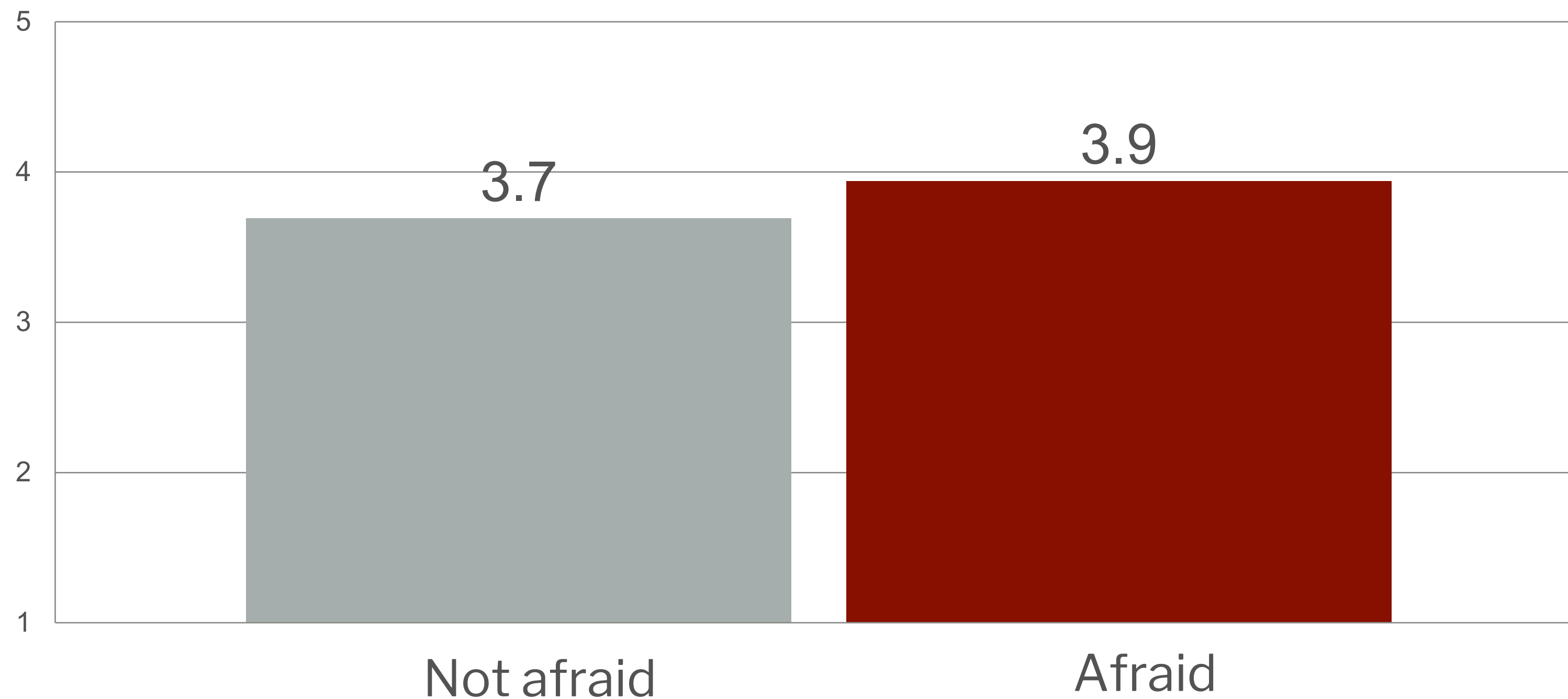


* p<.05; **p<.01; ***p<.001

AFRAID: PERCEIVED IMPACT

Viewers who felt afraid rated TSD higher for showing personal impacts***

Small effect



* p<.05; **p<.01; ***p<.001

HOPEFUL



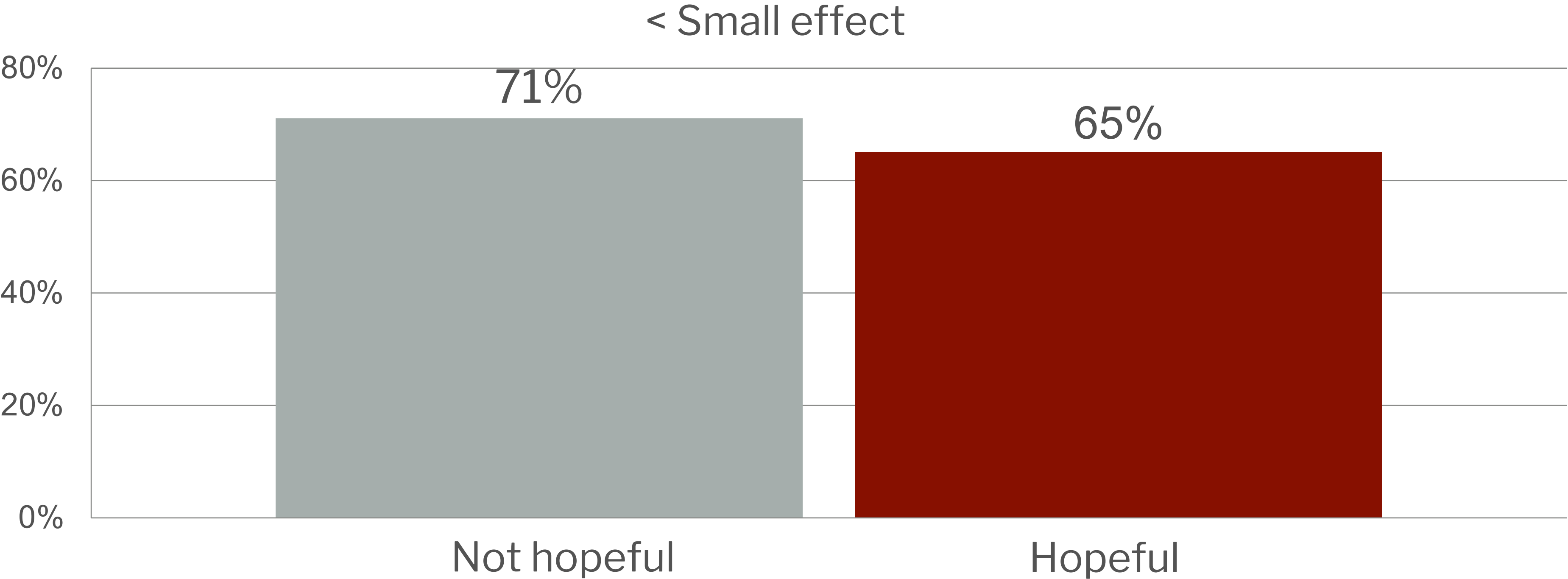
Significant impacts:

Viewers who felt hopeful while watching TSD:

- Were less knowledgeable about how tech companies monetize user attention and persuasive design techniques
- Were more likely to say social media has “mostly positive” effects
- Took fewer individual technology restriction actions, but more civic engagement actions
- Rated TSD more successful at showing both personal and societal impacts

HOPEFUL: KNOWLEDGE

Viewers who felt hopeful were less likely to know how tech companies monetize user attention*

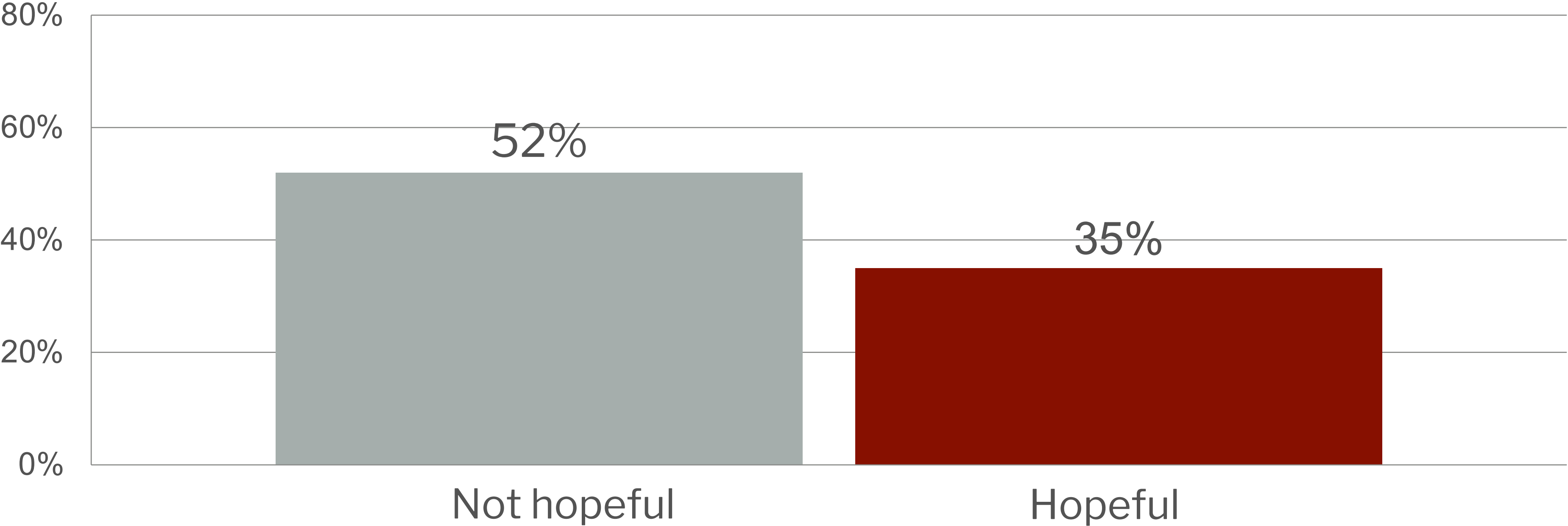


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

HOPEFUL: KNOWLEDGE

Viewers who felt hopeful were less likely to recognize persuasive design techniques***

Small effect

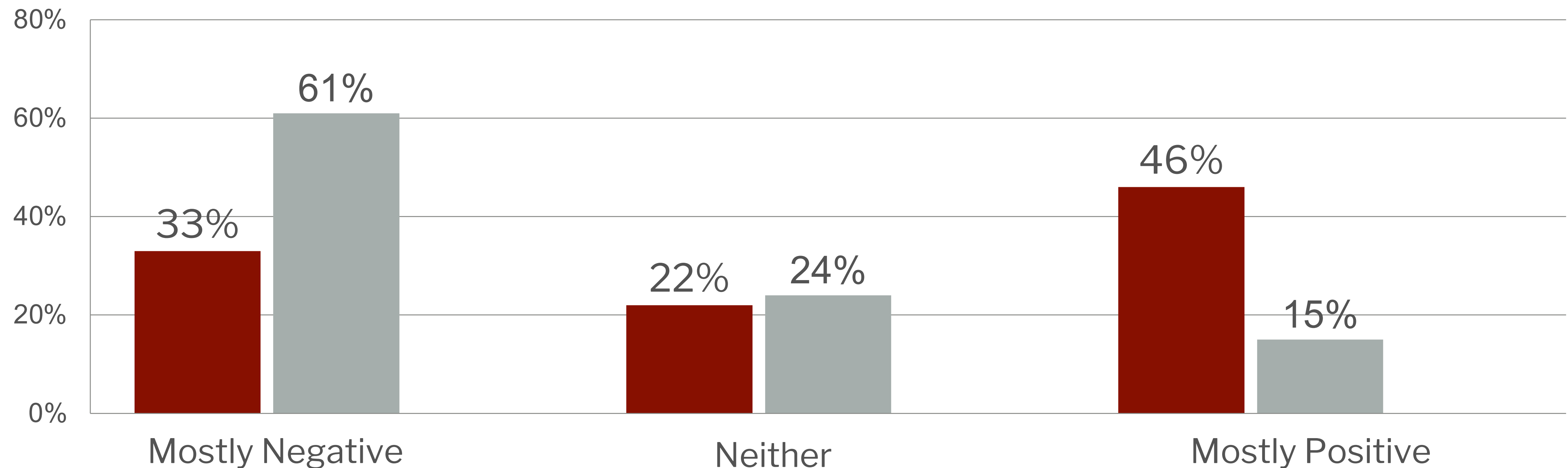


*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

HOPEFUL: ATTITUDES

Viewers who felt hopeful were more likely to say social media has mostly positive effects***

Medium effect



*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

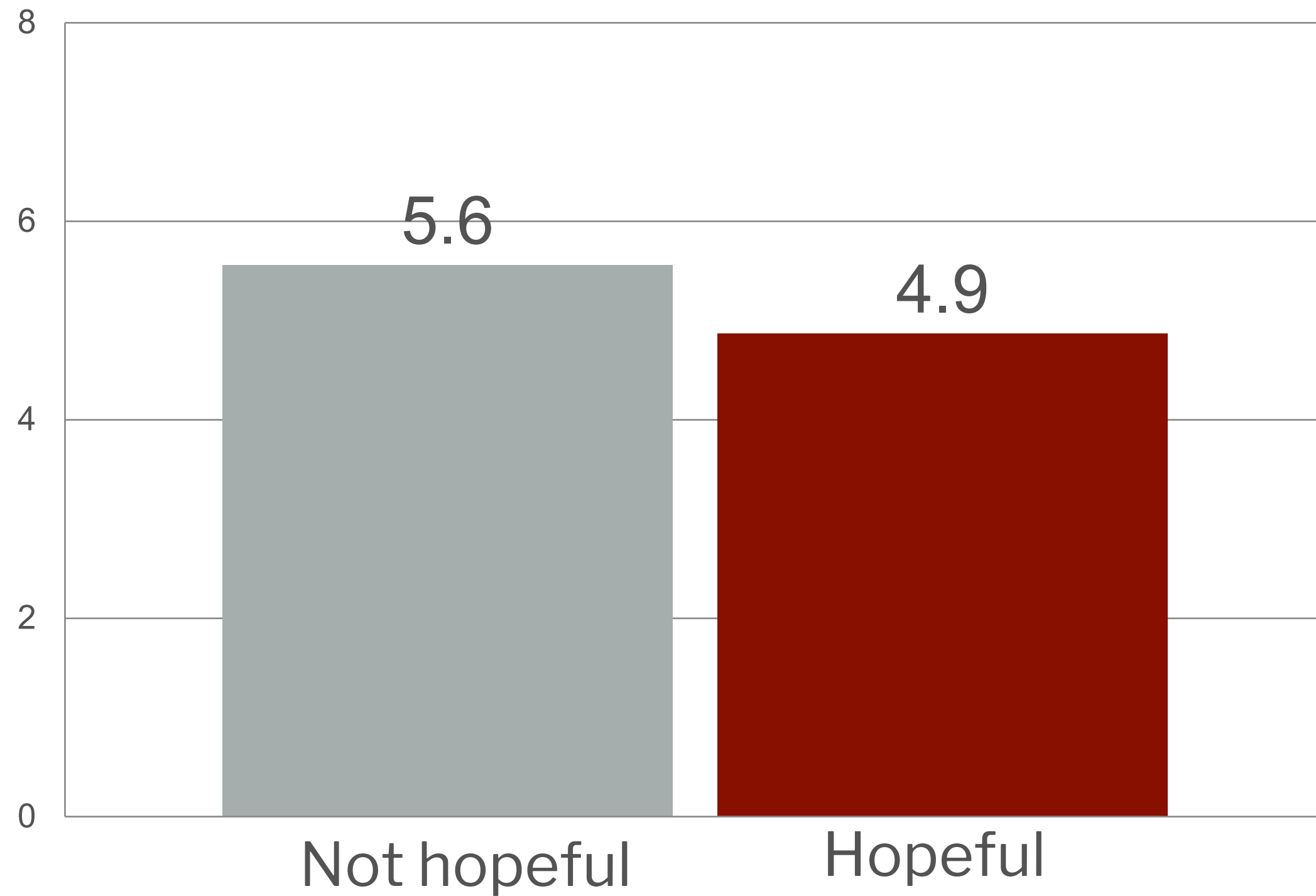
Not Hopeful Hopeful



HOPEFUL: ACTIONS

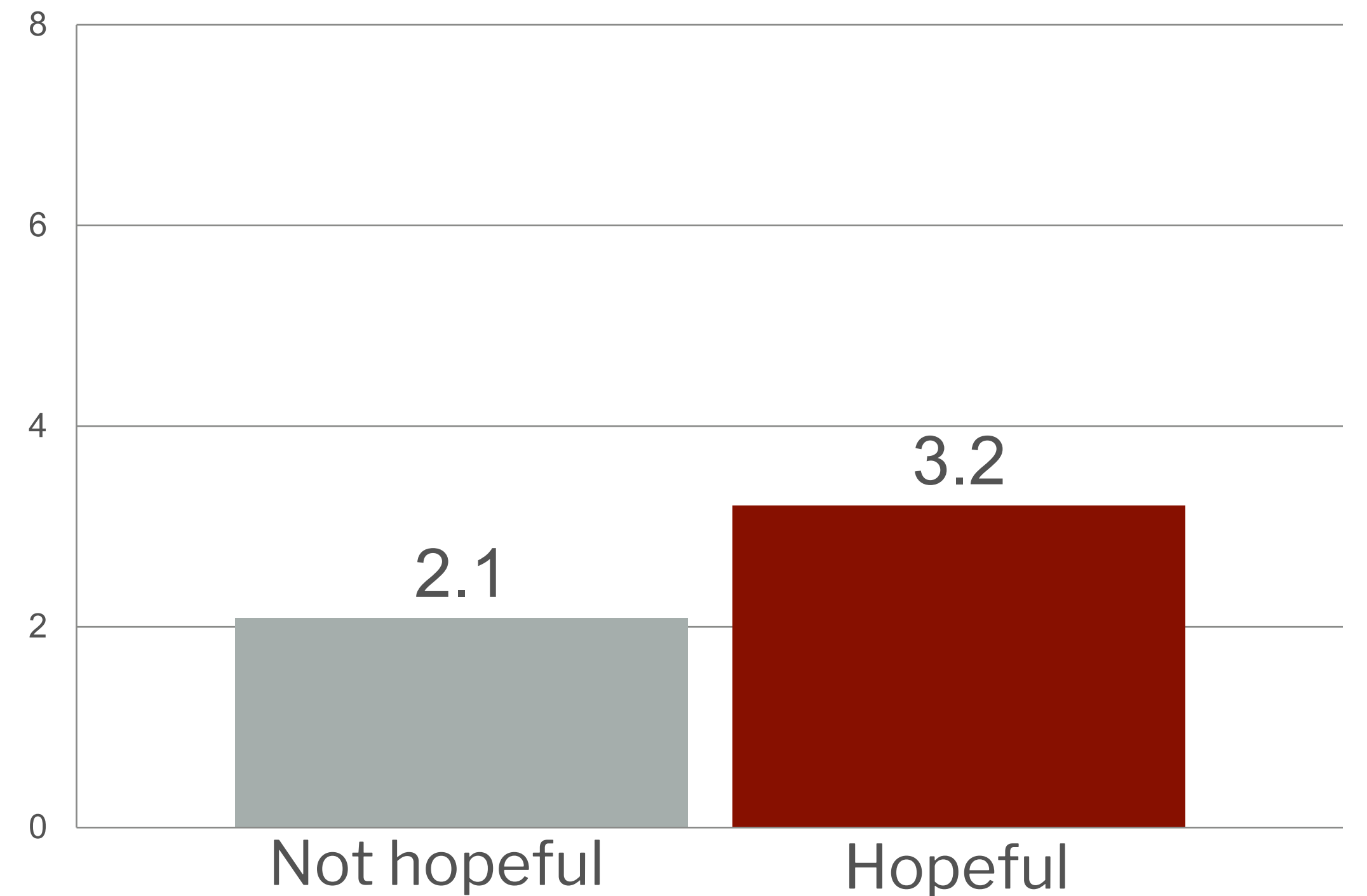
Viewers who felt hopeful took fewer individual technology restriction actions***

Small effect



But they took more civic engagement actions***

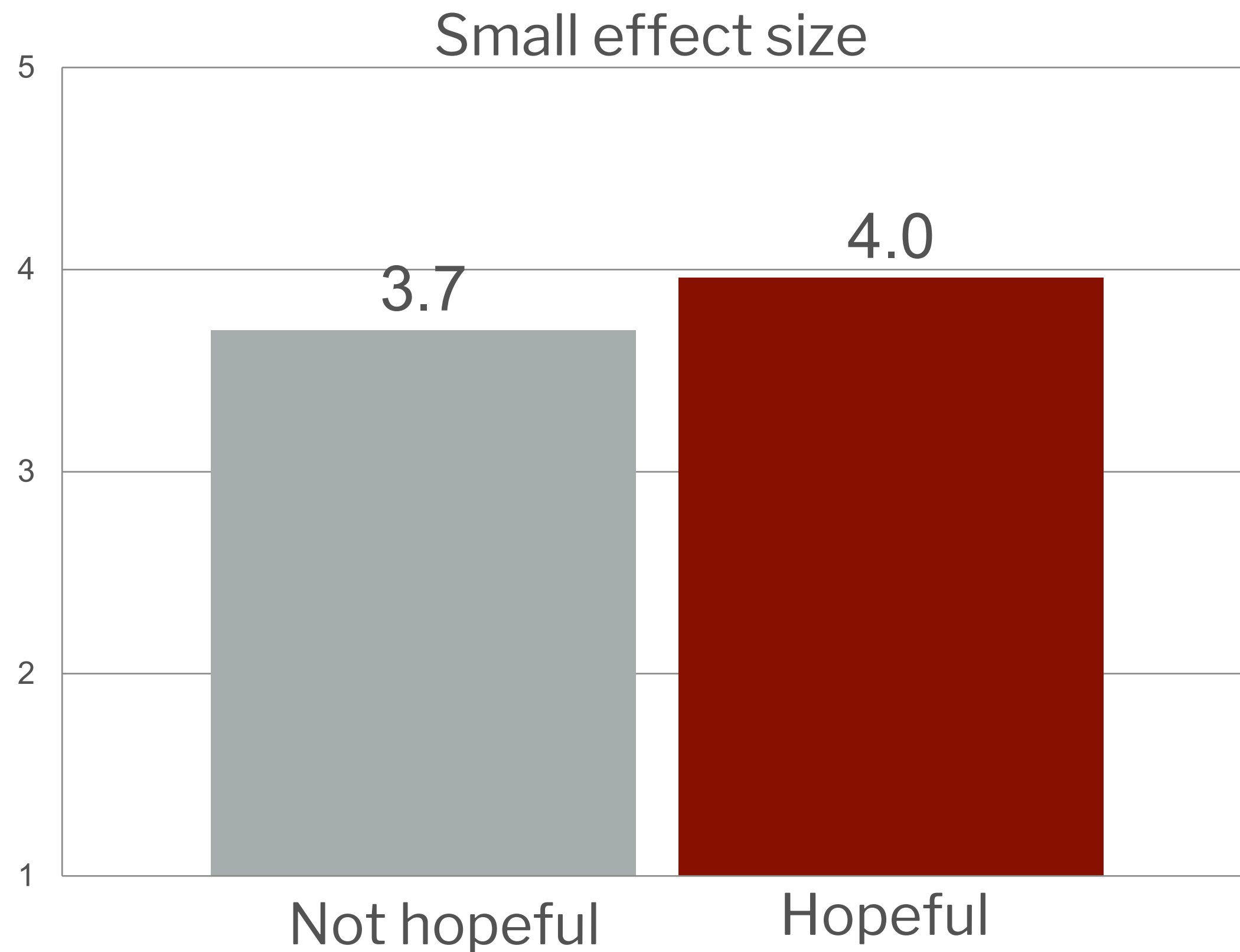
Large effect



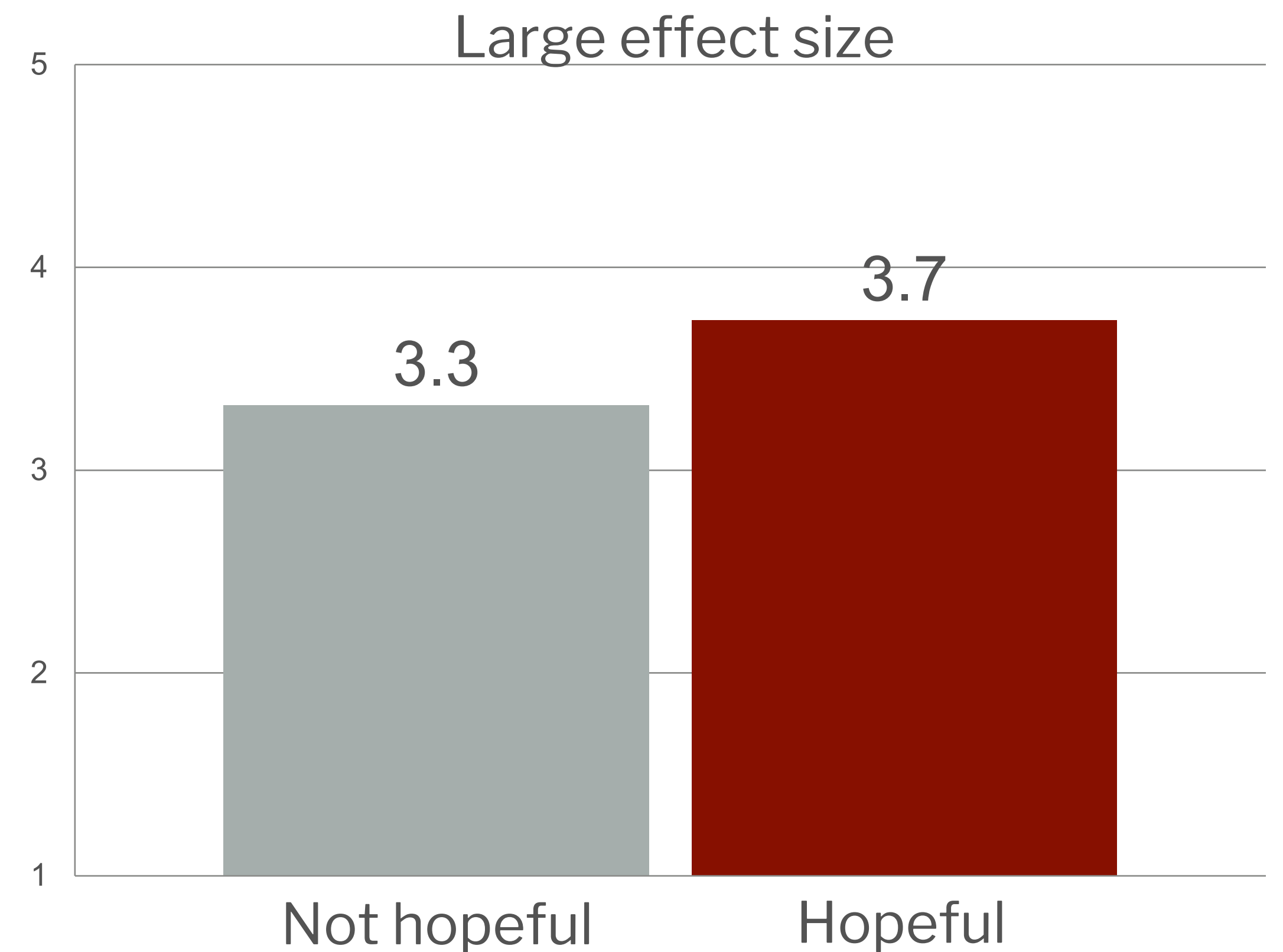
* p<.05; **p<.01; ***p<.001

HOPEFUL: PERCEIVED IMPACT

Viewers who felt hopeful rated TSD more successful at showing personal impacts***



Viewers who felt hopeful rated TSD more successful at showing societal impacts***



* p<.05; **p<.01; ***p<.001

CHARACTERS



Significant impacts:

Viewers who felt real interviewees were most effective

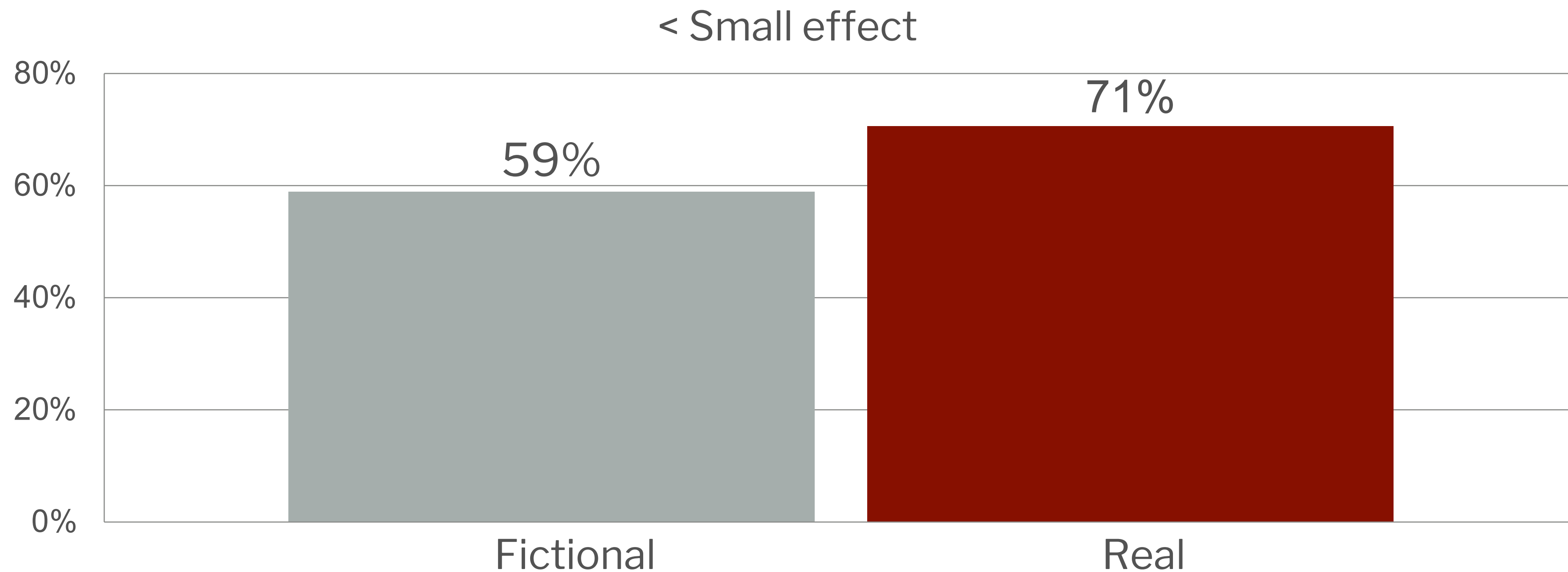
- Were more knowledgeable about how tech companies monetize user attention and persuasive design techniques
- Were more likely to say social media has “mostly negative” effects
- Held social media more responsible for the events of Jan 6
- Were more likely to feel afraid while watching
- Were more likely to support platform design changes
- Took more individual technology restriction actions

Viewers who felt fictional characters were most effective:

- Were more likely to feel hopeful while watching
- Rated TSD more successful at showing personal impacts

CHARACTERS: KNOWLEDGE

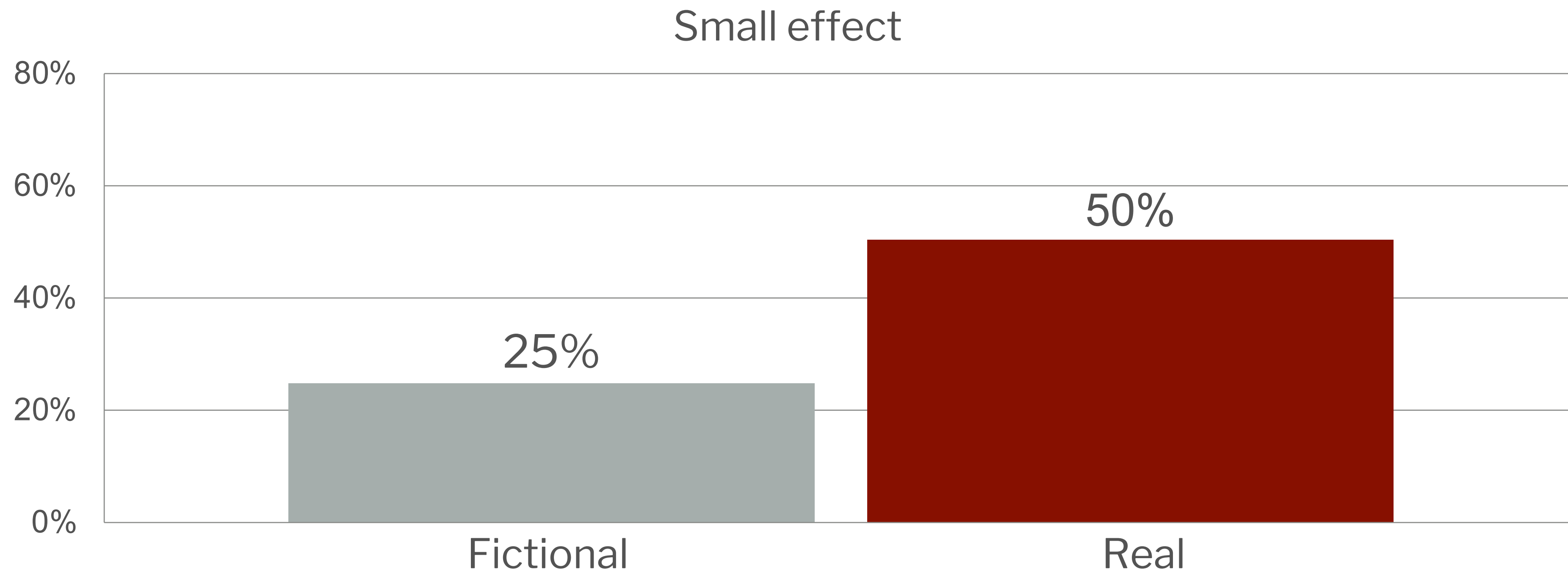
Viewers who felt real interviewees were most effective were more likely to know how tech companies monetize user attention***



Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

CHARACTERS: KNOWLEDGE

Viewers who felt real interviewees were most effective were more likely to recognize persuasive design techniques***

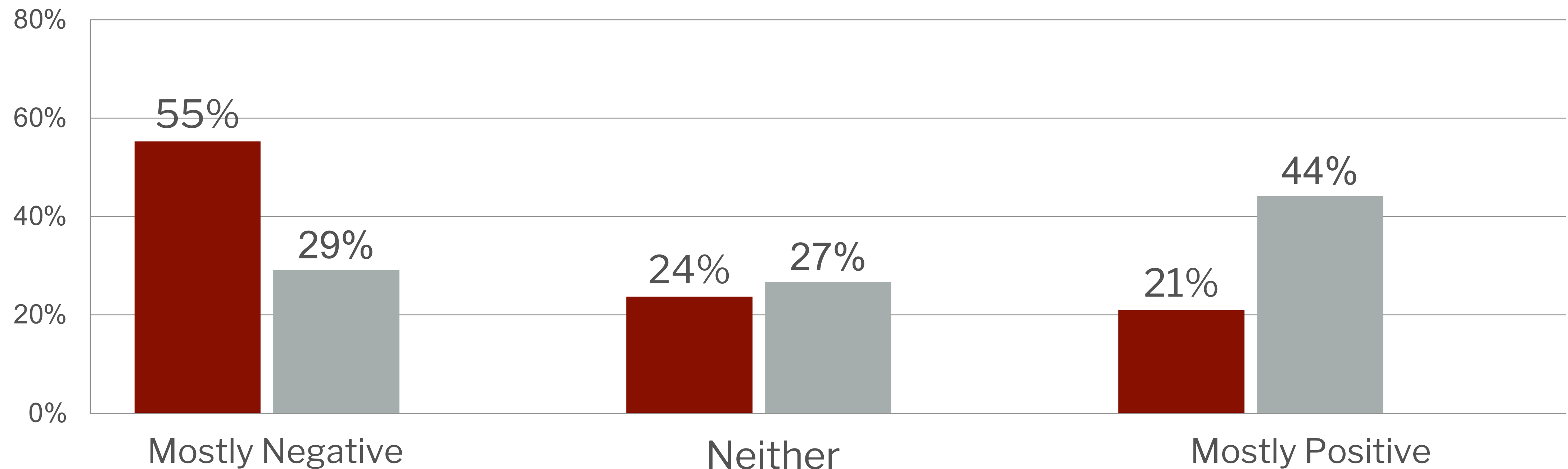


*Significant ($p < .05$); **Highly significant ($p < .01$); ***Very highly significant ($p < .001$)

CHARACTERS: ATTITUDES

Viewers felt real interviewees were most effective were more likely to say social media has mostly negative effects***

Medium effect



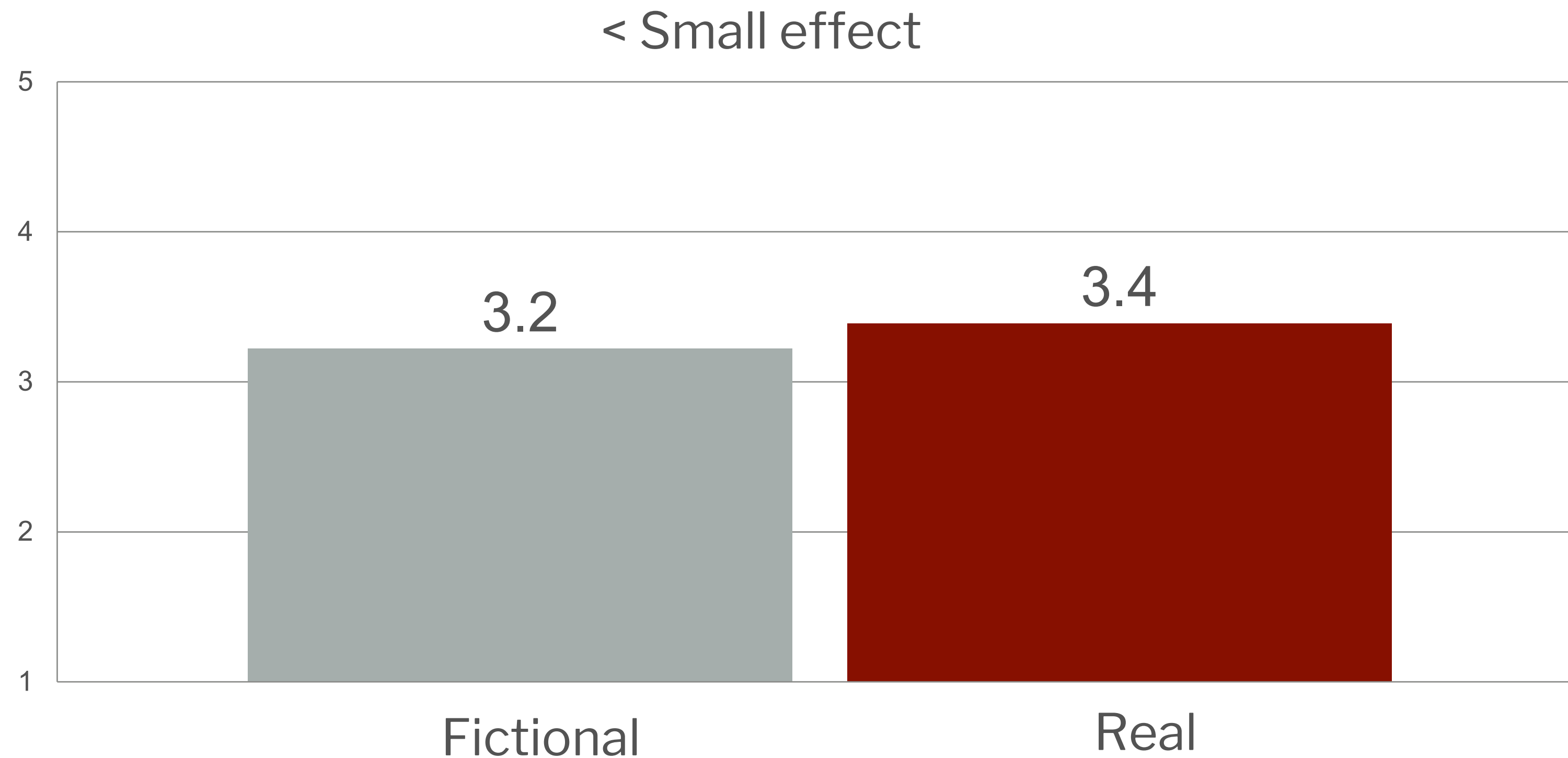
*Significant (p<.05); **Highly significant (p<.01); ***Very highly significant (p<.001)

Fictional Real



CHARACTERS: JAN 6 RESPONSIBILITY

Viewers who felt real interviewees were most effective held social media more responsible for the events of Jan 6***

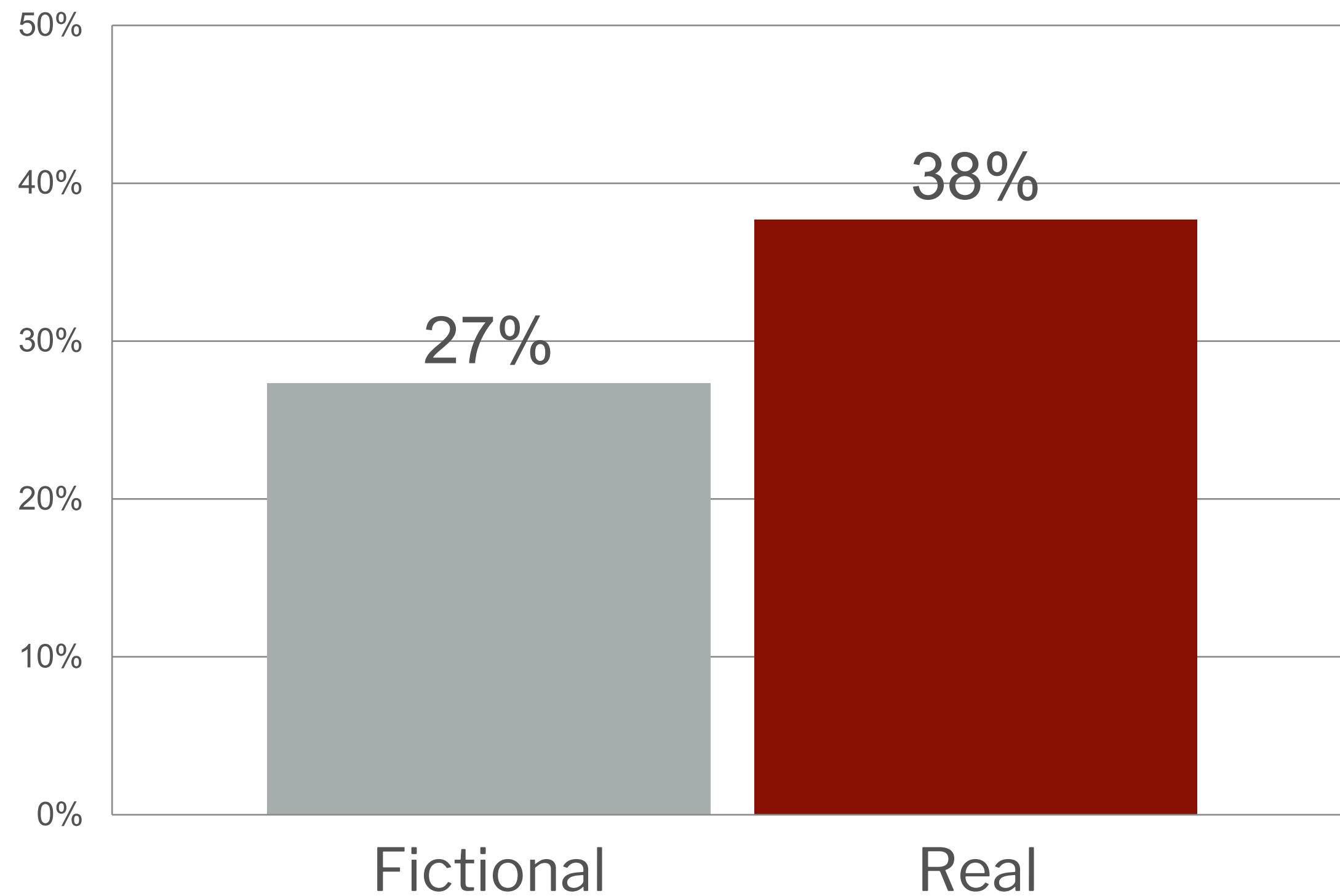


* p<.05; **p<.01; ***p<.001

CHARACTERS: EMOTIONAL RESPONSES

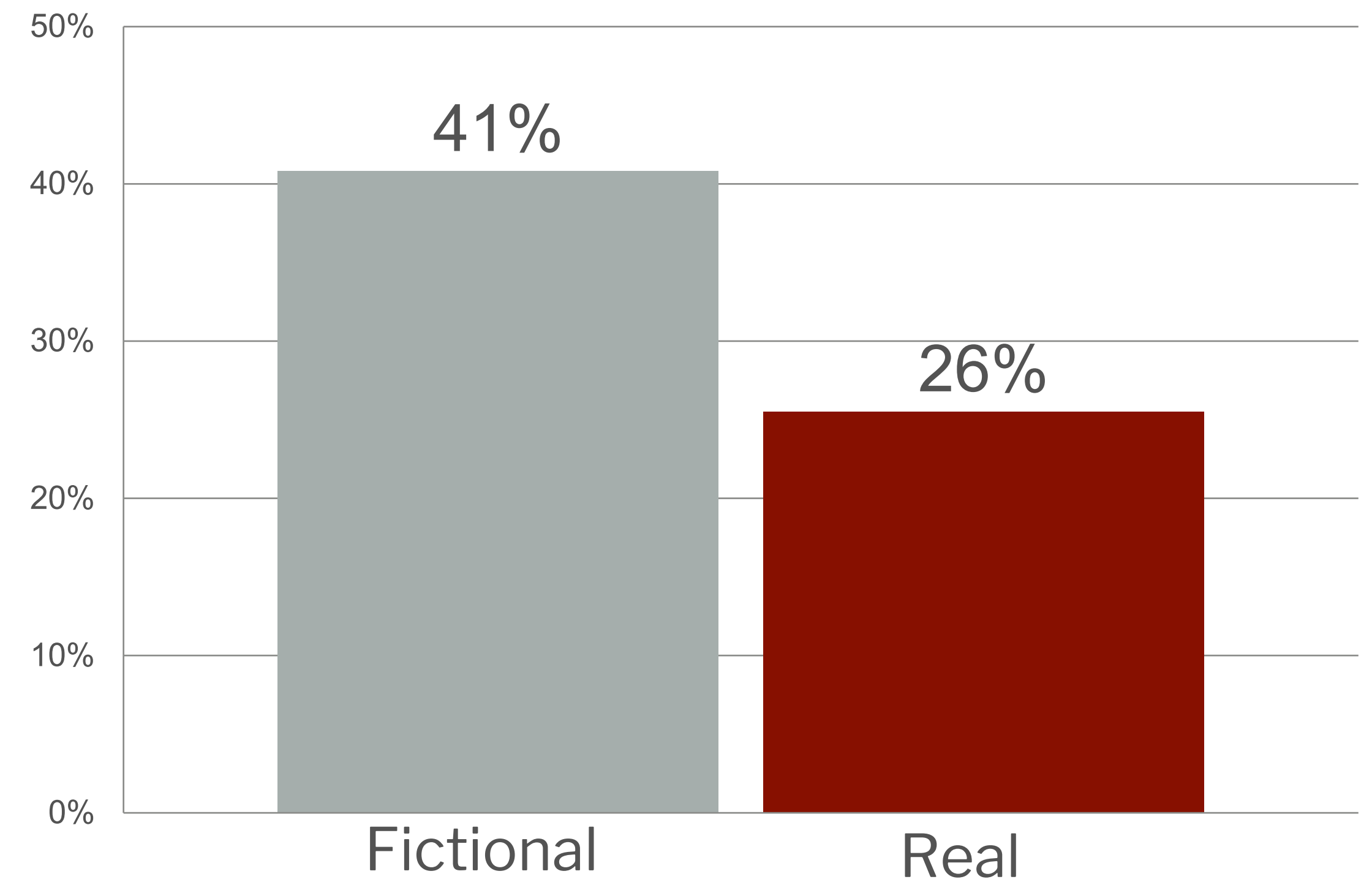
Viewers who felt real interviewees were most effective were more likely to feel afraid***

< Small effect



Viewers who felt fictional characters were most effective were more likely to feel hopeful***

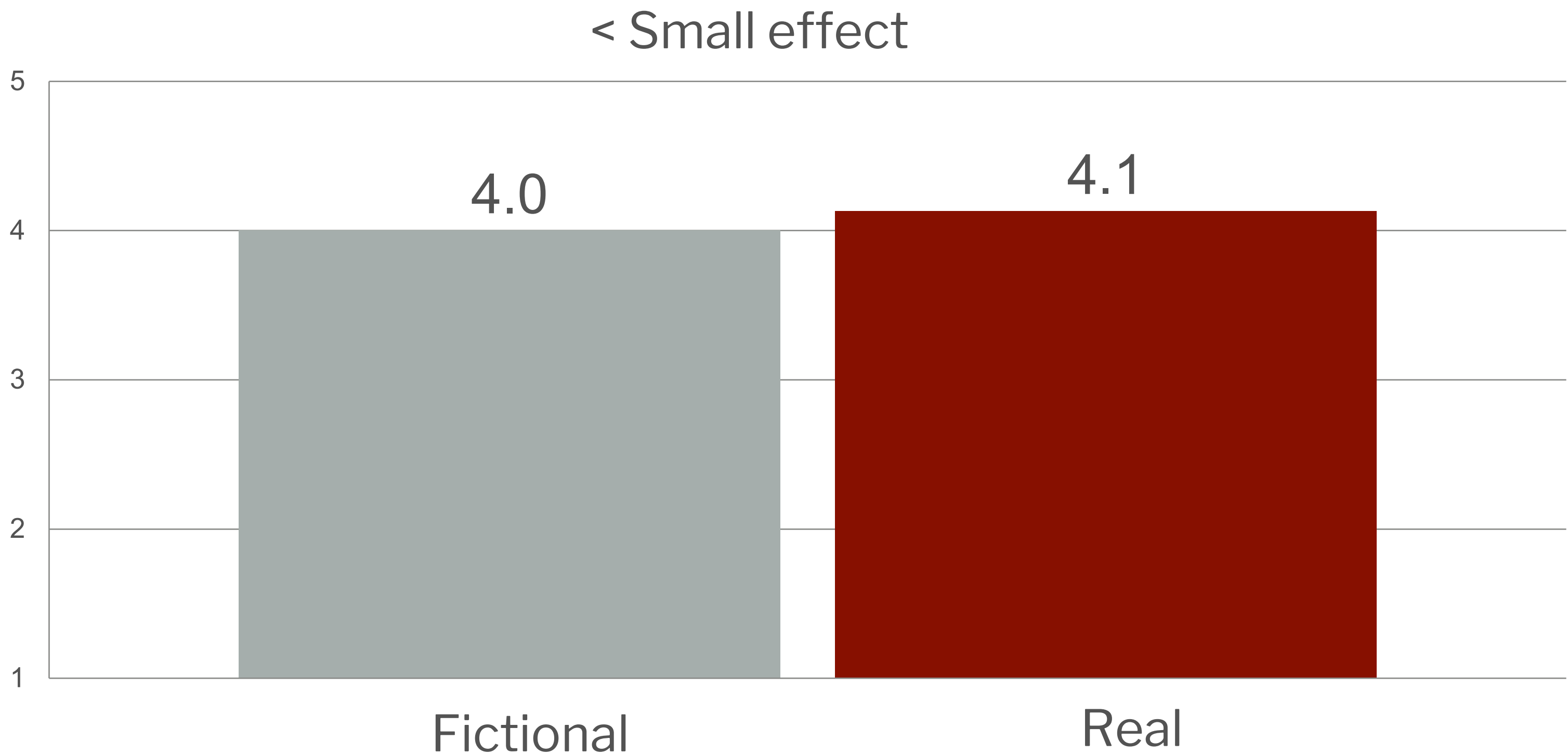
Small effect



* p<.05; **p<.01; ***p<.001

CHARACTERS: SUPPORT FOR REFORM

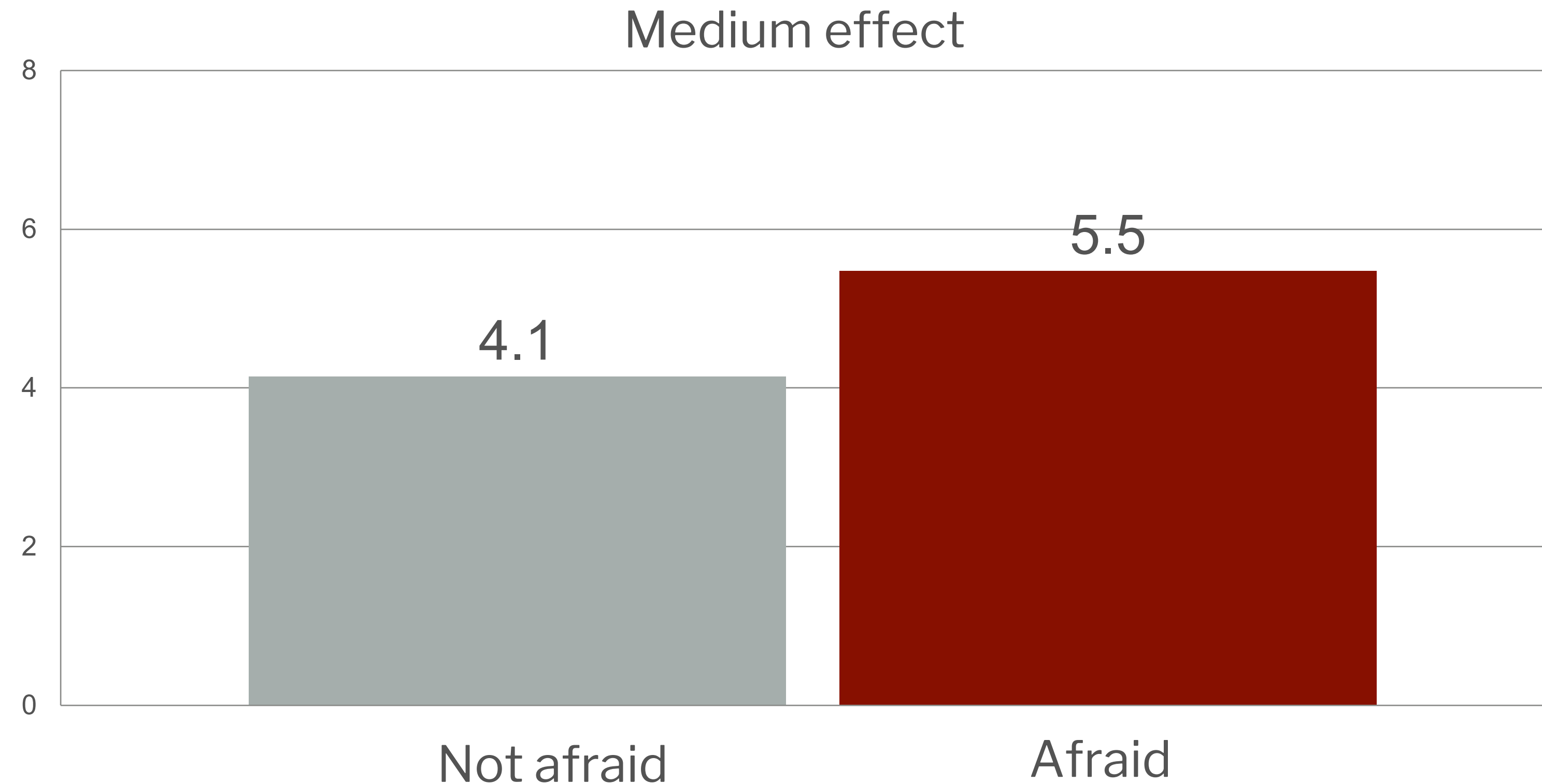
Viewers who felt real interviewees were most effective were more likely to support platform design changes**



* p<.05; **p<.01; ***p<.001

CHARACTERS: INDIVIDUAL ACTIONS

Viewers who felt real interviewees were most effective took more individual technology restriction actions***



* p<.05; **p<.01; ***p<.001

CHARACTERS: PERCEIVED IMPACT

Viewers who felt fictional characters were most effective
rated TSD higher for showing personal impacts***



* p<.05; **p<.01; ***p<.001



QUALITATIVE INSIGHTS: ALL RESPONDENTS

QUALITATIVE INSIGHTS



Why watch films that focus on social issues (either fictional or documentary)? (n=54)

- To learn about social issues from different points of view: *“I want to be informed on issues from all sides and points of view so I can make my own decisions on what's important to our society as a whole.”*
- To gain understanding in order to enact change: *“I am always seeking to learn so I can grow as a person. Documentaries are just one reason I am vegan now.”*
- Because social issue entertainment was relevant to their profession: *“I teach at a college about social issues.”*

QUALITATIVE INSIGHTS



Large social problems technology contributes to? (n=266)

- Communication breakdowns, both interpersonal/social and systemic erosion of truth via misinformation and hate speech: *“Breakdown of social skills and in person interactions [from the] constant distraction/addiction.”*
- Exacerbation of mental health issues due to unhealthy comparison standards (i.e., lived reality vs. idealized images): *“general feelings of depression, isolation, ennui and disengagement.”*
- Time wasted due to technological distractions from real life: *“It takes focus away from interacting WITH the natural world”*

QUALITATIVE INSIGHTS



What prompted you to take individual actions regarding technology usage? (n=2024)

- Observed addiction-type behaviors of people, especially children, using mobile devices: *“Watching a loved one sit like a robot endless scrolling for no apparent reason. Having to compete for their attention with some influencer that has no relevance in our family’s lives.”*
- Experienced detrimental effects on their own mental health: *“general feelings of depression, isolation, ennui and disengagement.”*

QUALITATIVE INSIGHTS



What prompted you to take individual actions regarding technology usage?
(n=2024)

- Watched TSD, or had encountered other media that explained the negative impacts associated with technology or provided guidance on reducing technology dependence: Other media influences included: *The Center for Humane Technology*, *“Digital Minimalism,” “The Great Hack”*
- Increasing Dislike / Distrust:
 - *“Tired of everything I was seeing was negative or argumentative.”*
 - *“Fatigue. False news. Targeted annoying ads.”*

QUALITATIVE INSIGHTS



What prompted you to take individual actions regarding technology usage?
(n=2024)

- Perceived Erosion of Common Sense and a Morphed Reality: *“As a HS Principal, we made The Social Dilemma the focal point of a day of in-service and reflection. It generated great staff discussion and got the ball rolling toward recognition of these issues so we can at least begin to speak with a common vocabulary. Being in education impacts every decision I make not only professionally but personally. So I'm trying to live with healthy habits, raise children with healthy habits...so we can produce graduates who can navigate these waters and make a difference.”*



QUALITATIVE INSIGHTS: TSD VIEWERS

QUALITATIVE INSIGHTS



What prompted you to watch TSD? (n=119)

- Interest in Topic: *“[I] watched it because from the description, it seemed like something I would be interested in based on my pre-existing feelings about the harmful effects of social media on society.”*
- Lived Experience and Personal Concerns:
 - *“I had growing concerns about my social media usage.”*
 - *“I asked my family to watch it with me so that we can support each other and my little sister whose overuse eventually led to depression.”*

QUALITATIVE INSIGHTS



Actions taken since watching TSD? (n=142)

- Spoken to friends, family, and coworkers about the film: *“[I] advocated [for] my friends to watch and take recommended steps conveyed in the film.”*
- Changed their own online behaviors and encouraged others to do so: *“[I] sought out resources from Center for Humane Technology and followed former tech workers featured in the film (I know, irony).”*
- Done further research on the topic: *“[I] wrote a term paper on the docudrama and drew attention to the Center for Human Technology and Tristan Harris in a presentation at the university on ethics in software development.”*

QUALITATIVE INSIGHTS



Changes noticed since watching TSD? Sense of urgency / need for change (n=446):

- *“Particularly after Jan 6, the urgency, which was already evident, is now even more so. The inevitability of profound interruptions to future elections is what scares me most, whether talking about external actors/active measures or rank politics and election fraud 'theater. We are still in the shallow water and it will get much worse.”*
- *Agree that change needs to happen immediately and very doubtful it will since there's money at stake and our country is capitalist-driven.”*
- *“We maybe won't have another chance, since we're destroying the planet and the environmental subject is also victim of fake news and people don't take action (vote correctly)”*

QUALITATIVE INSIGHTS



Changes noticed since watching TSD?

Motivation to change behavior (n=384)

- *“I felt such an intense emotion after and during this screening. I immediately told all my friends and family and could not get it out of my head. I was severely disturbed and wanted to do everything in my power to help make a difference.”*
- *“When I saw the documentary I thought I will not feed this industry anymore. I still have to use YouTube or sometimes Google.”*
- *“Understanding that the social media I knew when I began using social media in the early 2000s is not the same one.”*
- *“[H]igh- I have decreased my use of many social sites”*

QUALITATIVE INSIGHTS



Changes noticed since watching TSD?

Ability to see self/others in the problem (n=357)

- *"I have a friend who is convinced I'm going to die because I took the COVID vaccine. I'm worried about her because she didn't....I'm also seeing the impact social media has on my kids and their friends,...on the way my friends on the left view my friends on the right as being crazy, evil, stupid rather than just having different ways of approaching solutions to problems. It's breaking my heart."*
- *I could see family members and friends who have gone down the rabbit hole and sucked into misinformation or politicized information and are unable to find common ground"*
- *"[I saw] a glimpse into the future of what could happen to my family if we're not careful about social media isolating us from each other."*

QUALITATIVE INSIGHTS



Changes noticed since watching TSD?

Feelings when using these platforms (n=356)

- *“I just felt every refresh was a super computer playing the slot machine, but the algorithm chooses if I strike gold. And tells me what the gold is. I hate that. I hate having my personal narrative hijacked by an engineer trying to get me to stay on a site. They want to take me on the company's journey, not my own. If all stories are 'The Hero's Journey', then social media has been ruining billions of personal narratives.”*
- *“When I use social media, I always compare myself and feel alienated. I get sad, like outrageously sad and lonely. I enjoy seeing pictures of friends but there's a competition that comes with it and I can't handle it, even if it's in my own head.”*
- *“Guarded, I check messages quickly, but try to get in and out quickly once a week.”*

QUALITATIVE INSIGHTS



Changes noticed since watching TSD?

Way of seeing the world (n=344)

- *“After watching, I feel like I was more able to evaluate how I live my life and what I can control based on my perspective and values. It's also helped me have a less intense relationship with social media. Now it's more like, ‘oh they're saying that because they're behind a screen. [They] wouldn't say that to them face-to-face.’ It changes the meaning of interaction.”*
- *“Concerned about polarization and possible civil war.”*
- *“It makes me feel unsafe in sense of what I would be posting and how it can be taken out of context, or how I could be advertised things depending on the small details that I post.”*

QUALITATIVE INSIGHTS



Changes noticed since watching TSD?

Perspective toward these technologies (n=314)

- *“Every time I'm on social media I am aware that what I'm seeing is trying to make a buck off my engagement or is designed to manipulate my attention so I'll keep scrolling. I'm more aware when I catch myself mindlessly scrolling. Knowing that there is an addictive element that is exploited by these technologies has made me wary of them and made me more self-aware about how I interact with it.”*
- *“I transitioned from the perspective of joking about my personal FBI agent listening to my conversations too closely and showing me personalized ads to being truly afraid of how intelligent my devices and social media platforms have become against me.”*

THANK YOU!

Erica Watson-Currie, PhD: ewatson@usc.edu
Erica Rosenthal, PhD: erosenth@usc.edu
Hee-Sung Shin, PhD