Supplementary Analyses

Appendix A

Results of the hypothesized path analysis in Study 1 controlling for U.S. birth status and baseline assessments of hypothesized mediators and outcome to assess residual changes.

Outcome	Predictor	Estimate	SE	95% CI
T3 Collective Efficacy (72.50% variance explained)				
	Negative news coverage (T1)	.21**	.07	[0.067, 0.350]
	Collective Efficacy (T2)	.43***	.08	[0.268, 0.584]
	Born (T1)	-.02	.07	[-0.159, 0.116]
T3 Group-based Anger (82.30% variance explained)				
	Negative news coverage (T1)	.08	.08	[-0.091, 0.224]
	Group-based anger (T2)	.40***	.08	[0.223, 0.544]
	Born (T1)	.01	.07	[-0.136, 0.137]
T4 Collective Action Intentions (63.40% variance explained)				
	Anger at Muslim treatment (T3)	.17*	.07	[0.040, 0.311]
	Collective efficacy (T3)	.36***	.08	[0.198, 0.501]
	Collective action intentions (T3)	.23**	.09	[0.043, 0.383]
	Born (T1)	-.17**	.06	[-0.281,-0.056]
Direct and indirect effect of negative Muslim media (T1) on collective action intentions (T4)				
Collective action (T4)	Negative news coverage (T1)	.09*	.04	[0.022, 0.171]
Collective action (T4)	Via anger (T3)	.01	.02	[-0.008, 0.060]
Collective action (T4)	Via efficacy (T3)	.08*	.03	[0.023, 0.146]

Note. Standardized estimates and standard errors are based on 1,000 bootstrap replicates. T1 = Time 1, T2 = Time 2, T3 = Time 3, T4= Time 4, Born (0 = not in U.S., 1 = in the U.S.), CI = confidence intervals. N = 244, *p <.05, **p <.01 ***p<.001.

Appendix B

Results of the hypothesized path analysis in Study 1 controlling for baseline assessments of hypothesized mediators and outcome to assess residual changes with U.S. birth status excluded

Outcome	Predictor	Estimate	SE	95% CI
T3 Collective Efficacy (72.60% variance explained)				
	Negative news coverage (T1)	.21**	.07	[0.068, 0.350]
	Collective Efficacy (T2)	.43***	.08	[0.278, 0.580]
T3 Group-based Anger (82.20% variance explained)				
	Negative news coverage (T1)	.08	.08	[-0.079, 0.227]
	Group-based anger (T2)	.41***	.08	[0.239, 0.547]
T4 Collective Action Intentions (64.70% variance explained)				
	Anger at Muslim treatment (T3)	.16*	.07	[0.034, 0.311]
	Collective efficacy (T3)	.39***	.08	[0.226, 0.299]
	Collective action intentions (T3)	.23**	.09	[0.038, 0.373]
Direct and indirect effect of negative Muslim media (T1) on collective action intentions (T4)				
Collective action (T4)	Negative news coverage (T1)	.10*	.04	[0.027, 0.183]
Collective action (T4)	Via anger (T3)	.01	.02	[-0.006, 0.060]
Collective action (T4)	Via efficacy (T3)	.08*	.03	[0.026, 0.159]

Note. Standardized estimates and standard errors are based on 1,000 bootstrap replicates. T1 = Time 1, T2 = Time 2, T3 = Time 3 T4= Time 4, CI = confidence intervals. $N = 244$, *$p <.05$, **$p <.01$ ***$p<.001$.
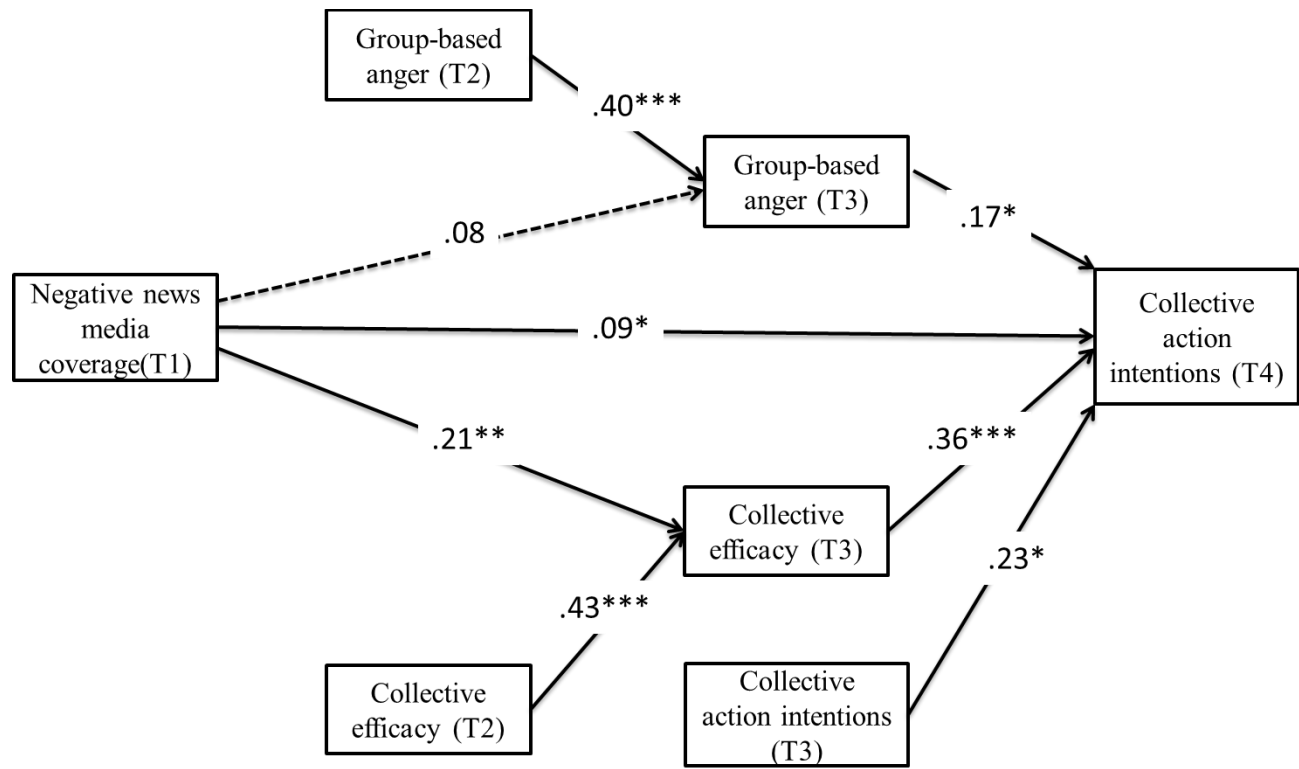
Appendix C

Model fit and factor loadings of the measurement model of the latent constructs.

Latent Construct	Indicators	Factor Loadings	S.E.
Negative Muslim Media (T1)	S1News1	.85*	.02
	S1News2	.91*	.02
	S1News3	.86*	.02
Group-based Anger (T2)	S2Emot1	.73*	.05
	S2Emot2	.70*	.06
	S2Emot3	.48*	.07
	S2Emot4	.79*	.05
Collective Efficacy (T2)	S2Ceff1	.96*	.02
	S2Ceff2	.90*	.02
	S2Ceff3	.84*	.03
Collective Action Intentions (T3)	S2Pact1	.88*	.02
	S2Pact2	.91*	.02
	S2Pact3	.75*	.04
	S2Pact4	.72*	.04
Group-based Anger (T3)	S3Emot1	.67*	.05
	S3Emot2	.84*	.03
	S3Emot3	.38*	.07
	S3Emot4	.87*	.03
Collective Efficacy (T3)	S3Ceff1	.88*	.02
	S3Ceff2	.93*	.02
	S3Ceff3	.80*	.03
Collective Action Intentions (T4)	S4Pact1	.81*	.03
	S4Pact2	.90*	.02
	S4Pact3	.72*	.04
	S4Pact4	.86*	.03

Note. $N = 244$, $\chi^2(254) = 512.72$, CFI = .91, RMSEA = .07, SRMR = .07, * $p < .001$.

Appendix D

Figure 1. Hypothesized model testing the indirect effect of T1 negative Muslim media on T4 collective action intentions through T3 anger at how Muslims are treated and T3 collective efficacy baseline assessments for both mediators and outcomes included. In addition, this analysis controls for U.S. birth status.
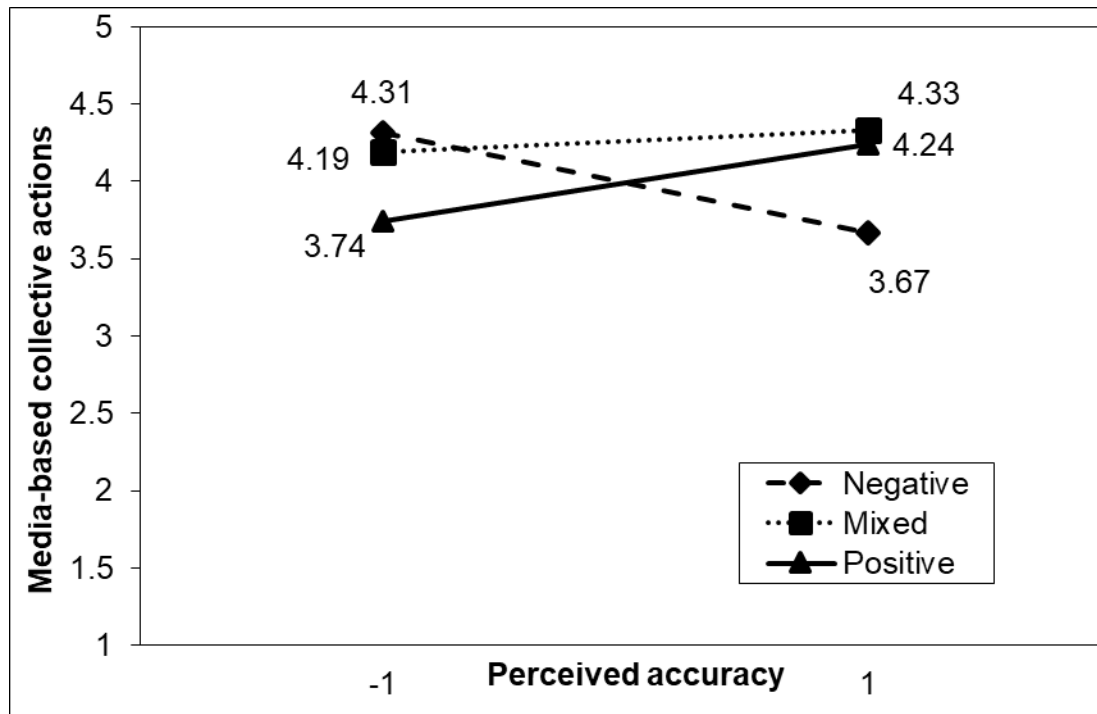
Appendix E

Media collective action intentions. Five items were created to assess intentions to specifically improve the media image of Muslims. Example items included "I am willing to comment on news stories that depict Muslims unfairly", "I am willing to inform others about the unfair depiction of Muslims in American media." Participants responded on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), ($\alpha = .88$).

ANCOVA results revealed a significant main effect of condition, $F(2,330) = 3.76$, $p < .05$. Planned contrasts revealed that participants were the most likely to engage in collective actions aimed at improving the media image of Muslims in the mixed condition ($M = 4.26$) compared to the positive ($M = 3.99$) and negative ($M = 3.99$) conditions. The latter two were not significantly different from each other. Finally, there was a significant interaction between condition and perceived article accuracy, $F(2,330) = 11.63$, $p < .001$ (see Figure below). Simple effects analyses revealed significant slopes for the negative condition, $b = -.32$, $F(1, 110) = 16.41$, $p < .001$, and positive conditions, $b = .26$, $F(1, 112) = 6.06$, $p < .05$, but not the mixed condition, $F < 1$, $p > .10$. Thus, in the negative condition as perceived accuracy increased, intentions to improve the media image of Muslims decreased. However, this relation was opposite for the positive news article condition.

Figure 2. Media-based collective action intentions as a function of assigned news article and perceived accuracy of news article in Study 2.

Appendix F

Log transformed Non-normative collective action. Following the guidelines by Tabachnick and Fidell (2007) and Howell (2007), the positively skewed non-normative collective action measure was subject to a logarithmic transformation. The overall effect of exposure to the three articles as well as the hypothesized moderating effect of perceived article accuracy (standardized) on exposure for this transformed non-normative collective action outcome was run using Proc GLM in SAS 9.4. There was no significant main effect of condition on non-normative forms of collective actions, $F < 2.5$, $p > .10$. The significant interaction between condition and perceived accuracy, $F(2,334) = 6.34$, $p < .01$ (see Figure 3) found that accuracy yielded a significant effect in the negative, $b = .05$, $F(1, 112) = 7.17$, $p < .05$, and positive conditions, $b = -.06$, $F(1, 113) = 6.23$, $p < .05$, but not the mixed condition, $F = 2.00$, $p > .10$. Those who read the negative article and perceived it as accurate were *more* likely to engage in non-normative forms of collective actions. This effect was reversed in the positive article condition, such that seeing it as accurate led to lower intentions to engage in non-normative actions.

Online Appendix A

Measures for Study 1

<u>Demographics assessed at Time 1</u>

1. What is your gender?
    a. Male
    b. Female
2. What is your current age in years?
3. What is your race/ethnicity?
    a. White or Caucasian
    b. Black or African American
    c. Native American or American Indian
    d. East Asian
    e. South Asian
    f. Hispanic
    g. Arab
    h. Other
4. What is your religious affiliation?
    a. Christianity
    b. Judaism
    c. Islam
    d. Buddhism
    e. Hinduism
    f. None
    g. Other
5. How many years have you lived in the U.S.?
    a. I was born in the U.S.
    b. 1-2 years
    c. 3-4 years
    d. 5-6 years
    e. 7-8 years
    f. 9-10 years
    g. 11-12 years
    h. 13-14 years
    i. 15-16 years
    j. 17-18 years
    k. 19-20 years
    l. 21 years or more

Exposure to negative Muslim news assessed at Time 1 and 4

Please rate the statements listed below using the scale provided. Please be honest in your responses and remember your responses are anonymous. [Never, 1-2 times, A few times a year, 1 or more times a month, 1 or more times a week, Almost every day]

1. How often have you seen news stories about terrorism perpetrated by Muslims?
2. How often have you seen news stories of Muslims perpetrating violence?
3. How often have you seen news about Muslims being aggressive or violent towards the United States?

Anger at the treatment of Muslims in America assessed at Time 2 and 3

Please rate the extent you feel each of the following emotions when thinking about the ways in which Muslims are treated in America right now. Please be honest in your responses and remember your responses are anonymous. [Not at all, A little, Moderately, Very, Extremely]

1. Anger
2. Frustration
3. Hostility
4. Irritation

Collective Efficacy assessed at Time 2 and 3

Please rate your agreement or disagreement with each of the statements below. Please be honest in your responses and remember your responses are anonymous. [Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

1. Muslims in America can work together to fight against discrimination
2. Muslims in American can work together to improve their status and position in American society
3. Muslim Americans can work together to exert influence in political decisions in America

Collective actions for Muslims assessed at Time 3 and 4

Please rate your agreement or disagreement with each of the statements below. Please be honest in your responses and remember your responses are anonymous. [Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

1. I would participate in a demonstration with the goal of improving the position of Muslims in America
2. I would participate in raising awareness about injustices facing Muslims in America
3. I would sign a petition to stop discrimination against Muslims in America
4. I would be willing to donate money to organizations that are intending to raise the concerns of Muslim Americans

Online Appendix B: Measures for Study 2

Experimental Stimuli

Negative Condition

f y in ✉ + more 🔖 save for later

INDEPENDENT News Voices Culture lifestyle Tech Sports
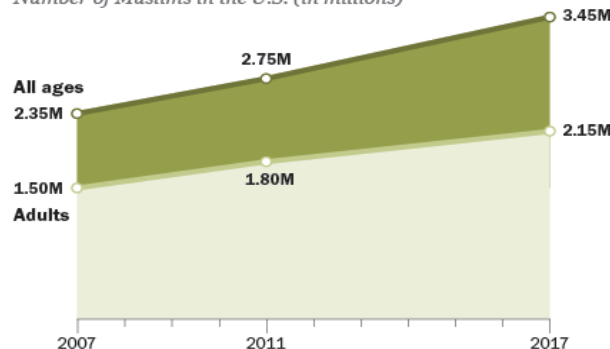
Muslim population grows rapidly, safety concerns for the U.S.

By Chelsea Lockwood Aug. 26, 2018

A new analysis suggests that there were about 3.45 million Muslims of all ages living in the U.S. in 2017. The number of U.S. Muslims has been growing rapidly, albeit from a relatively low base. In 2007, it was estimated that there were 2.35 million Muslims of all ages (including 1.5 million adults) in the U.S. By 2011, the number of Muslims had grown to 2.75 million (including 1.8 million adults). Since then, the Muslim population has continued to grow at a rate of roughly 100,000 per year. With this growth rate, by 2040, Muslims will replace Jews as the nation's second-largest religious group after Christians. And by 2050, the U.S. Muslim population is projected to reach 8.1 million, or 2.1% of the nation's total population — nearly twice the share of today.

Number of Muslims in the U.S. continues to grow

Number of Muslims in the U.S. (in millions)

All ages
2.35M — 2.75M — 3.45M

Adults
1.50M — 1.80M — 2.15M

2007 2011 2017

Note: U.S. Muslim population estimates reflect a correction made on Nov. 9, 2017.
Source: Pew Research Center estimates based on analysis of surveys of Muslim Americans in 2007, 2011 and 2017 combined with U.S. Census data.
"U.S. Muslims Concerned About Their Place in Society, but Continue to Believe in the American Dream"

PEW RESEARCH CENTER

This increase in Muslim immigration poses a serious safety concern for Americans. An opinion poll recently conducted among Muslim Americans reveals that a significant portion of U.S. Muslims show some degree of sympathy for different types of terrorist activities: 35% of them approve of suicide bombing attacks "in some instances"; 31% of them believe that violence in some situations is justified; and 28% of them have a favorable view of terrorist organizations such as ISIS.

Professor Campbell Gibson, an international relations expert, commented that the poll results precisely reflected how Muslim immigrants threatened the U.S. national security. Professor Gibson further stated that "We continue to see the deadly consequences of radical Islamic terrorists exploiting weak immigration policies at home and abroad. After the attacks in San Bernardino, Orlando, and Boston, not to even mention the many attacks in Europe, we can no longer ignore this growing safety concern for the United States."

Positive Condition

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INDEPENDENT
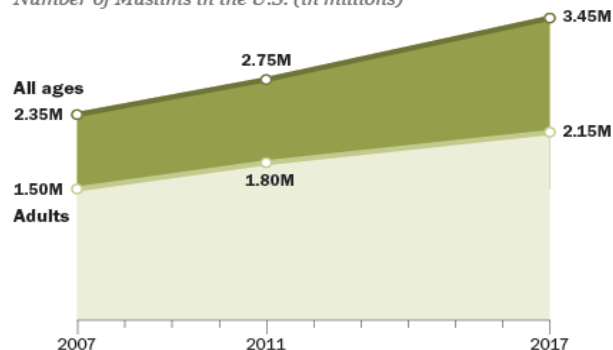
News Voices Culture lifestyle Tech Sports

Muslim population grows rapidly, positive effects for the U.S.

By Chelsea Lockwood   Aug. 26, 2018

A new analysis suggests that there were about 3.45 million Muslims of all ages living in the U.S. in 2017. The number of U.S. Muslims has been growing rapidly, albeit from a relatively low base. In 2007, it was estimated that there were 2.35 million Muslims of all ages (including 1.5 million adults) in the U.S. By 2011, the number of Muslims had grown to 2.75 million (including 1.8 million adults). Since then, the Muslim population has continued to grow at a rate of roughly 100,000 per year. With this growth rate, by 2040, Muslims will replace Jews as the nation's second-largest religious group after Christians. And by 2050, the U.S. Muslim population is projected to reach 8.1 million, or 2.1% of the nation's total population — nearly twice the share of today.

Number of Muslims in the U.S. continues to grow

Number of Muslims in the U.S. (in millions)

3.45M
2.75M
All ages
2.35M
2.15M
1.50M
1.80M
Adults

2007   2011   2017

Note: U.S. Muslim population estimates reflect a correction made on Nov. 9, 2017. Source: Pew Research Center estimates based on analysis of surveys of Muslim Americans in 2007, 2011 and 2017 combined with U.S. Census data. "U.S. Muslims Concerned About Their Place in Society, but Continue to Believe in the American Dream"

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This increase in Muslim immigration has positive implications for Americans. Recent findings reveal that despite only nearing two percent of the total population, Muslim Americans make up nearly 10 percent of licensed medical doctors in the country, helping to save lives and innovate across the medical field. U.S. Muslims are also making advances in STEM fields, constituting about 4.2 percent of all licensed engineers and 3.7 percent of all new patent holders. In addition to these professional contributions, Muslims are among the most generous religious groups making significant charitable donations to non-profit organizations aimed at improving the lives of all Americans.

Prof. Campbell Gibson, an international relations expert, commented that these results precisely reflected how Muslim immigrants have been positively contributing to the American society ever since they first started migrating here. Professor Gibson further stated that "We continue to see positive consequences of Muslim immigrants for the larger American society. The recent findings on the professional achievements of many Muslim immigrants will ultimately serve to benefit the U.S. economy."

Mixed Condition
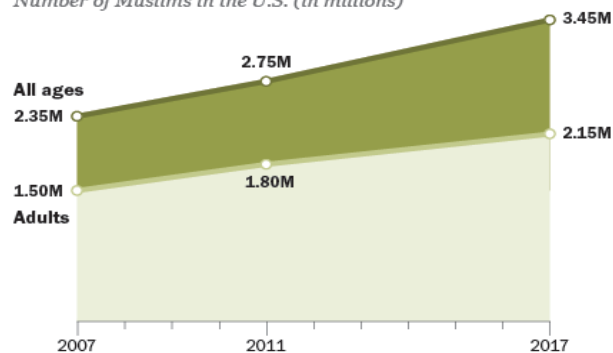
INDEPENDENT

Muslim population grows rapidly, what does this mean for the U.S?

By Chelsea Lockwood   Aug. 26, 2018

A new analysis suggests that there were about 3.45 million Muslims of all ages living in the U.S. in 2017. The number of U.S. Muslims has been growing rapidly, albeit from a relatively low base. In 2007, it was estimated that there were 2.35 million Muslims of all ages (including 1.5 million adults) in the U.S. By 2011, the number of Muslims had grown to 2.75 million (including 1.8 million adults). Since then, the Muslim population has continued to grow at a rate of roughly 100,000 per year. With this growth rate, by 2040, Muslims will replace Jews as the nation's second-largest religious group after Christians. And by 2050, the U.S. Muslim population is projected to reach 8.1 million, or 2.1% of the nation's total population — nearly twice the share of today.

Number of Muslims in the U.S. continues to grow

Number of Muslims in the U.S. (in millions)

All ages: 2.35M, 2.75M, 3.45M
Adults: 1.50M, 1.80M, 2.15M

2007   2011   2017

Note: U.S. Muslim population estimates reflect a correction made on Nov. 9, 2017. Source: Pew Research Center estimates based on analysis of surveys of Muslim Americans in 2007, 2011 and 2017 combined with U.S. Census data. "U.S. Muslims Concerned About Their Place in Society, but Continue to Believe in the American Dream"

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In relation to Muslim immigration some data has shown positive impacts on the lives of Americans. For instance, Muslim Americans make up nearly 10 percent of licensed medical doctors in the country and constitute about 4.2 percent of all licensed engineers and 3.7 percent of all new patent holders. Other data suggests that the rising number of Muslim immigrants may have negative implications. An opinion poll recently conducted among Muslim Americans reveals that a significant portion of U.S. Muslims show some degree of sympathy for different types of terrorist activities.

Experts have mixed views on how the growing Muslim immigration population affects the future of the U.S. Professor Campbell Gibson, an international relations expert, commented that "On the one hand, Muslim immigrants are highly educated and have demonstrated incredible achievements, especially in the fields of medicine and engineering, leading to positive effects on the U.S. economy. On the other hand, a significant portion of U.S. Muslims tend to have controversial attitudes towards violence and terrorism which is concerning for the safety of the U.S.

Study 2 Measures

<u>Demographics</u>

1. What is your current age in years?

2. What is your religious affiliations?
   a. Christianity
   b. Judaism
   c. Islam
   d. Buddhism
   e. Hinduism
   f. None
   g. Other

3. What is your gender?
   a. Male
   b. Female

4. What is your race/ethnicity?
   a. White or Caucasian
   b. Black or African American
   c. Native American or American Indiana
   d. East Asian
   e. South Asian
   f. Hispanic
   g. Arab
   h. Other

5. Were you born in the U.S.?
   a. Yes
   b. No

6. How many years have you lived in the U.S.?
   a. 1-2 years
   b. 3-4 years
   c. 5-6 years
   d. 7-8 years
   e. 9-10 years
   f. 11-12 years
   g. 13-14 years
   h. 15-16 years
   i. 17-18 years
   j. 19-20 years
   k. 21 years or more

7. Are you a U.S. citizen?
   a. Yes

   b. No

8. Generally speaking, do you usually think of yourself as a Republican, a Democrat, an independent, or what?
   a. Democrat
   b. Republican
   c. Independent
   d. Other (please specify)

9. Think about your political views. Compared to most Americans, where would you place yourself on this scale?
   a. Extremely liberal
   b. Liberal
   c. Slightly liberal
   d. Moderate; middle of the road
   e. Slightly conservative
   f. Conservative
   g. Extremely conservative

Questions pertaining to the News Article

The following questions pertain to the article you just read. [Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

1. The information presented in the article is accurate
2. The information presented in the article is biased
3. The information presented in the article is trustworthy
4. The information presented in the article is credible
5. The article presents Muslims in a positive manner
6. The article presents Muslims in a favorable way

Emotions

Please rate to what extent you feel each of the following emotions when thinking about the ways in which Muslims are treated in America right now. Please be honest in your responses and remember your responses are anonymous. [Not at all, A little, Moderately, Very, Extremely]

1. Anger
2. Frustration
3. Hostility
4. Irritation

Collective Efficacy

Please rate your agreement or disagreement with each of the statements below. Please be honest in your responses and remember your responses are anonymous. [Strongly disagree, Somewhat disagree, Neither agree not disagree, Somewhat agree, Strongly agree]

1. Muslims in America can work together to fight against discrimination
2. Muslims in America can work together to improve their status and position in American society
3. Muslim Americans can work together to exert influence in political decisions in America

Normative Collective Action Intentions

Please rate the extent to which you agree or disagree with each of the following statements regarding your willingness to take political action for improving the status and position of Muslims in America. Please be honest in your responses and remember your responses are anonymous. [Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

1. I would participate in a demonstration with the goal of improving the position of Muslims in America
2. I would participate in raising awareness about injustices facing Muslims in America
3. I would sign a petition to stop discrimination against Muslims in America
4. I would be willing to donate money to organizations that are intending to raise the concerns of Muslim Americans

Media-specific collective actions

Please tell us to what extent you agree or disagree with the following statements. Please be honest in your responses and remember your responses are anonymous. [Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

1. I am willing to comment on news stories than depict Muslims unfairly
2. I am willing to inform others about the unfair depiction of Muslims in American media
3. I am motivated to work towards improving the image of Muslims in American media
4. Muslims should work together to demand that journalists, media, bloggers, and other information providers portray Muslims in a fair manner.
5. Muslims should work together to change and improve the ways in which American media represents Muslims

Non-normative Collective Action Support

Sometimes people think that extreme actions are necessary or justified to change the ways in which their group is treated in the larger society. To what extent would YOU be willing to engage in the following actions if they were part of a protest or demonstration aimed at changing the ways Muslims are treated in American society. Please be honest in your responses and remember your responses are anonymous. [Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

1. I would be willing to engage in rioting as part of this protest
2. I would be willing to use physical force as part of this protest
3. I would be willing to throw bottles or rocks as part of this protest
4. I would be willing to engage in arson attacks on the private property of the individual or groups response as part of this protest
5. I would be willing to engage in violent acts as part of this protest