

Appendices

Appendix A. Variable Names, Associated Measures, and References

| Name | Measure(s) | References |
|---|--|---|
| Pretest & Posttest Evacuation Probability | Slide the marker to indicate your likelihood of evacuating on a scale of 0% (no chance of evacuating) to 100% (would definitely evacuate). | Dillon & Tinsley (2016) ¹ |
| Vulnerable Near Miss | <p><i>Average of two items ($\alpha = 0.49$).</i></p> <p>Based on your own personal beliefs and experience, please indicate how much you agree or disagree with the following statements: [<i>Strongly disagree (1) – Strongly agree (4)</i>]</p> <ul style="list-style-type: none"> • "The Houston-Galveston metro region was almost hit by Hurricane Laura." • "It was just luck that Hurricane Laura didn't hit the Houston-Galveston metro region." | Dillon et al. (2014) ² |
| Trust in Science | <p><i>Sum of three items ($\alpha = 0.71$).</i></p> <p>How important do you feel science is? [<i>Not at all important (0) – Very important (3)</i>]</p> <ul style="list-style-type: none"> • To you in your everyday life • To society in general <p>How much confidence do you have in what scientists report? [<i>No confidence at all (0) – A great deal (3)</i>]</p> | 3M (2019) ³ Funk et al. (2019) ⁴ |
| COVID-19 and Science Information | | |
| COVID Concern | When considering evacuation for Hurricane Laura, how concerned were you that you or a member of your immediate family would contract the coronavirus (COVID-19) if you evacuated? [<i>Very concerned (3) – Not concerned at all (0)</i>] | Original |
| Weather Info. Frequency | <p><i>Frequency = highest value across all sources.</i></p> <p><i>Source count = total number of unique sources.</i></p> <p>For news and information specifically about weather, how often do you get information from... [<i>Never (0) – Often (3)</i>]</p> <ul style="list-style-type: none"> • Daily newspapers • National network TV news, such as ABC, CBS, NBC, or PBS • Local TV news • Cable TV news, such as CNN, Fox News, or MSNBC • Talk radio • Public radio | Pew (2020) ⁵ |
| Weather Source Count | | |
| Science Info. Frequency | <p><i>Frequency = highest value across all sources.</i></p> <p><i>Source count = total number of unique sources.</i></p> <p>For news and information specifically about science, how often do you get information from... [<i>Never (0) – Often (3)</i>]</p> <ul style="list-style-type: none"> • Daily newspapers • National network TV news, such as ABC, CBS, NBC, or PBS • Local TV news • Cable TV news, such as CNN, Fox News, or MSNBC • Talk radio • Public radio | Pew (2020) ⁵ |
| Science Source Count | | |
| Risk Perceptions | | |
| Hurricane Laura | <p><i>Sum of four items ($\alpha = 0.89$).</i></p> <ul style="list-style-type: none"> • Thinking back to the days and hours before the hurricane made landfall, how much risk or danger do you feel you are at from [wind/flooding/storm | Retchless (2018) ⁶ Kahan et al. (2014) ⁷ |

| | | |
|--------------------------|--|---|
| | <p>surge]? Slide the marker to indicate your feeling on a scale of 0 (none at all) to 100 (extreme).</p> <ul style="list-style-type: none"> Evacuation orders for portions of the Houston Galveston metro region were issued two days before Hurricane Laura was expected to make landfall. At the time when the orders were issued, what impact did you expect hurricane Laura to have on your home and personal property? Slide the marker to indicate expected damages from 0 (none at all) to 100 (extreme devastation). | |
| General Hurricanes | How much risk or danger do you feel you are at from hurricanes? Slide the marker to indicate your feeling on a scale of 0 (none at all) to 100 (extreme). | Retchless (2018) ⁶ Kahan et al. (2014) ⁷ |
| Political Beliefs | | |
| Conservative politics | Here is a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale? [<i>Extremely liberal (0) – Extremely conservative (3)</i>] | American National Election Study (2021) ⁸ |
| Egalitarian Worldview | <p><i>Sum of four items (α = 0.85).</i></p> <p>Please tell us if you agree or disagree with the following statements: [<i>Strongly disagree (1) – Strongly agree (5)</i>]</p> <ul style="list-style-type: none"> The world would be a more peaceful place if its wealth were divided more equally among nations. In my ideal society, all basic needs (food, housing, health care, education) would be guaranteed by the government for everyone. I support government programs to get rid of poverty. Discrimination against minorities is still a very serious problem in our society. | Smith and Leiserowitz (2014) ⁹ Morss et al. (2016) ¹⁰ Morss et al. (2020) ¹¹ |
| Individualist Worldview | <p><i>Sum of four items (α = 0.84).</i></p> <p>Please tell us if you agree or disagree with the following statements: [<i>Strongly disagree (1) – Strongly agree (5)</i>]</p> <ul style="list-style-type: none"> If the government spent less time trying to fix everyone’s problems, we would all be a lot better off. Our government tries to do too many things for too many people. We should just let people take care of themselves. The government interferes too much in our everyday lives. Government regulation of business usually does more harm than good. | |
| Trust in Others | Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people? [<i>Can trust (1) Cannot trust (-1) Depends (0)</i>] | American National Election Study (2021) ⁸ |
| Treatment Groups | | |
| Source | Random assignment to one of two sources (friend/forecaster, pre and posttest), one of two types (strength/track, posttest only), and one of three probabilities (same/double/uncertain, posttest only). | Dillon & Tinsley (2016) ¹ |
| Type | <ul style="list-style-type: none"> Pretest vignette: “Imagine it is August of this year (2021). Early one morning, you hear from a [friend/forecaster] that another hurricane is potentially two days away from impacting the Houston-Galveston metro region. The [friend/forecaster] says that the hurricane seems to be on a similar track to Laura, explaining that | |
| Probability | | |

| | | |
|--|---|----------|
| | <p>this new storm is about as likely to strike the metro region as Laura was at the same time before landfall. Wherever it strikes, this new storm's strength is also expected to be similar to Laura's strength at landfall. How likely is it that you would evacuate?"</p> <ul style="list-style-type: none"> • Posttest vignette, strength type: "Now imagine that later that afternoon the same [friend/forecaster] says that the hurricane's expected strength at landfall [remains unchanged/remains highly uncertain/has increased, and that it may now be strong enough to cause up to twice as much damage]. Given this new information, how likely is it that you would evacuate?" • Posttest vignette, track type: "Now imagine that later that afternoon the same [friend/forecaster] says that the hurricane's expected track [remains unchanged/remains highly uncertain/has changed, and that it is now twice as likely to strike the Houston-Galveston metro region.]. Given this new information, how likely is it that you would evacuate?" | |
| Evacuation behavior and information sources | | |
| Evacuated | Thinking about Hurricane Laura, did you evacuate? [Yes (1) / No (0)] | |
| Evacuation Order (Self-Reported) | Were you under an evacuation order? [Yes, mandatory Yes, voluntary No Don't know / don't remember] | Original |
| Evacuation Info. Importance | How much of your decision to evacuate (or not) was based on information you received from... [Completely (3) – Not at all (0)] <ul style="list-style-type: none"> • The media • Local authorities • Neighbors • Close friends and family | Original |
| Evacuation Info. Source | What types of information did you use to make your decision about evacuation? Check all that apply. <ul style="list-style-type: none"> • Local weather reports • Warnings or advisories from the National Hurricane Center • Advice from family, friends, or acquaintances • Evacuation orders or other advice from local emergency managers • Other information sources (please specify) | Original |
| Home in Evacuation Zone | | |
| by ZIP Code | Please enter the zip code of your place of residence during Hurricane Laura (August 2020). Coded to mandatory (if matching mandatory evacuation zip codes from news reports), voluntary (if in evacuation zones Coastal, A, or B; see Figure 1), or none if zip is on neither list. | Original |
| by Self Report (SR) | Is your home in a hurricane evacuation zone? [Yes / No / Don't know] | Original |
| Mobile Home | What kind of home do you live in? <ul style="list-style-type: none"> • Mobile home or trailer (1) • Single-family home, not attached to another house (0) | Original |

| | | |
|--------|---|----------|
| | <ul style="list-style-type: none"> • Single-family home, attached such as a duplex/quadrplex (0) • Apartment in an apartment building (0) • Other (please specify) (0) | |
| Renter | Do you own or rent your home? [Own (0) Rent (1)] | Original |

¹Dillon, R. L., & Tinsley, C. H. (2016). Near-miss events, risk messages, and decision making. *Environment Systems and Decisions*, 36(1), 34–44.

²Dillon, R. L., Tinsley, C. H., & Burns, W. J. (2014). Near-Misses and Future Disaster Preparedness. *Risk Analysis*, 34(10), 1907–1922. <https://doi.org/10.1111/risa.12209>

³M. (2019). *State of Science Index: 2019 Global Findings*. <https://multimedia.3m.com/mws/media/16654440/3m-sosi-2019-global-findings.pdf>

⁴Funk, C., M. Hefferon, B. Kennedy, & C. Johnson. (2019). *Trust and Mistrust in Americans' Views of Scientific Experts*. Pew Research Center. <https://www.pewresearch.org/science/2019/08/02/trust-and-mistrust-in-americans-views-of-scientific-experts/>

⁵Pew Research Center (2020). *American Trends Panel: Wave 73/ Social Media Survey*. https://www.pewresearch.org/journalism/wp-content/uploads/sites/8/2021/01/PJ_2021.01.12_News-and-Social-Media_TOPLINE.pdf

⁶Retchless, D. P. (2018). Understanding local sea level rise risk perceptions and the power of maps to change them: The effects of distance and doubt. *Environment and Behavior*, 50(5), 483-511.

⁷Kahan, D. M., Crow, D., & Boykoff, M. T. (2014). Making climate-science communication evidence-based: All the way down. In *Culture, Politics and Climate Change: How information shapes our common future*. Routledge.

⁸American National Election Studies. (2021). *ANES 2020 Time Series Study Full Release* [Dataset & documentation]. July 19, 2021 version. www.electionstudies.org

⁹Smith, N., & Leiserowitz, A. (2014). The Role of Emotion in Global Warming Policy Support and Opposition. *Risk Analysis*, 34(5), 937–948. <https://doi.org/10.1111/risa.12140>

¹⁰Morss, R. E., Demuth, J. L., Lazo, J. K., Dickinson, K., Lazrus, H., & Morrow, B. H. (2016). Understanding public hurricane evacuation decisions and responses to forecast and warning messages. *Weather and Forecasting*, 31(2), 395–417.

¹¹Morss, R. E., Lazrus, H., Bostrom, A., & Demuth, J. L. (2020). The influence of cultural worldviews on people's responses to hurricane risks and threat information. *Journal of Risk Research*, 1–30.

Appendix B. Linear Regression Results for Pretest Evacuation Probability for Future Storm

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|------------------------------------|----------------|----------------|----------------|----------------|-----------------|
| Intercept | 23.19 (7.10)** | 22.34 (7.91)** | 1.93 (7.70) | -0.15 (7.42) | -3.90 (7.61) |
| Vulnerable Near Miss | 5.33 (2.41)* | 3.75 (2.27) | 0.15 (1.44) | 0.17 (1.43) | 0.48 (1.41) |
| Trust in Science | 2.08 (0.87)* | 0.53 (0.88) | -0.05 (0.70) | -0.01 (0.70) | 0.12 (0.71) |
| <i>COVID-19 and Science Info.</i> | | | | | |
| COVID Concern | | 6.51 (1.22)*** | 0.83 (1.02) | 0.73 (1.02) | 0.40 (1.00) |
| Weather Info. Frequency | | -2.74 (2.27) | -0.13 (1.65) | 0.09 (1.64) | -0.61 (1.64) |
| Weather Source Count | | 1.22 (1.03) | -0.67 (0.76) | -0.72 (0.76) | -0.70 (0.70) |
| Science Info. Frequency | | -1.47 (1.91) | -0.83 (1.57) | -0.88 (1.57) | -1.52 (1.47) |
| Science Source Count | | 3.01 (1.04)** | 1.41 (0.76) | 1.38 (0.75) | 1.16 (0.76) |
| <i>Risk Perceptions</i> | | | | | |
| Hurricane Laura | | | 0.16 (0.01)*** | 0.17 (0.01)*** | 0.14 (0.01)*** |
| General Hurricanes | | | 0.20 (0.05)*** | 0.20 (0.05)*** | 0.16 (0.05)*** |
| <i>Political Beliefs</i> | | | | | |
| Conservative Politics | | | 0.86 (0.61) | 0.89 (0.61) | 1.00 (0.60) |
| Egalitarian Worldview | | | 0.43 (0.26) | 0.44 (0.26) | 0.38 (0.26) |
| Individualist Worldview | | | -0.27 (0.29) | -0.28 (0.29) | -0.37 (0.28) |
| Trust in Others | | | -1.15 (1.37) | -0.96 (1.38) | -1.83 (1.38) |
| <i>Treatment Groups</i> | | | | | |
| Source: Forecaster | | | | 2.80 (1.81) | 2.52 (1.70) |
| Evacuated | | | | | 14.11 (2.94)*** |
| <i>Evacuation Order (SR)</i> | | | | | |
| Mandatory | | | | | -1.90 (3.62) |
| Voluntary | | | | | -0.80 (3.28) |
| Don't Know | | | | | 0.06 (2.97) |
| <i>Evacuation Info. Importance</i> | | | | | |
| Media | | | | | -0.14 (1.08) |
| Local Authorities | | | | | 2.18 (1.20) |
| Neighbors | | | | | -1.59 (1.19) |
| Friends & Family | | | | | 1.87 (1.24) |
| <i>Evacuation Info. Source</i> | | | | | |
| Weather Reports | | | | | 4.29 (1.89)* |
| NHC Warnings/Advisories | | | | | 1.31 (1.93) |
| Friends & Family Advice | | | | | 2.50 (2.11) |
| Evacuation Orders | | | | | -0.98 (1.88) |
| <i>Home in Evacuation Zone</i> | | | | | |
| ZIP: Mandatory | | | | | 2.05 (5.22) |
| ZIP: Voluntary | | | | | -1.29 (2.46) |
| SR: Yes | | | | | 0.91 (2.16) |
| SR: Don't Know | | | | | 2.16 (2.30) |
| Mobile Home | | | | | 0.02 (4.21) |
| Renter | | | | | 3.49 (1.89) |
| Deviance | 799019.97 | 722818.84 | 421838.37 | 420287.29 | 391957.77 |
| Dispersion | 979.19 | 885.81 | 516.96 | 515.06 | 480.34 |
| R ² | 0.02 | 0.12 | 0.49 | 0.49 | 0.52 |
| Num. obs. | 817 | 817 | 817 | 817 | 817 |

***p < 0.001; **p < 0.01; *p < 0.05; p < 0.1

SR = self-report

Appendix C. Linear Regression Results for Posttest Evacuation Probability for Future Storm

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Intercept | 5.51 (4.15) | 0.91 (4.89) | -10.45 (6.46) | -11.65 (6.13) | -13.89 (6.35)* |
| Pretest Evacuation Probability | 0.85 (0.03)*** | 0.83 (0.03)*** | 0.72 (0.05)*** | 0.71 (0.04)*** | 0.71 (0.04)*** |
| Vulnerable Near Miss | 0.56 (1.22) | 0.38 (1.15) | 0.08 (1.09) | -0.16 (1.06) | -0.37 (1.05) |
| Trust in Science | 0.65 (0.58) | 0.27 (0.55) | -0.02 (0.53) | 0.05 (0.52) | -0.03 (0.51) |
| <i>COVID-19 and Science Info.</i> | | | | | |
| COVID Concern | | 1.30 (0.80) | 0.80 (0.74) | 0.70 (0.71) | 0.39 (0.71) |
| Weather Info. Frequency | | 3.29 (1.31)* | 3.43 (1.29)** | 3.32 (1.22)** | 2.76 (1.25)* |
| Weather Source Count | | -0.88 (0.57) | -1.20 (0.56)* | -0.99 (0.54) | -1.10 (0.54)* |
| Science Info. Frequency | | -2.03 (1.22) | -2.02 (1.15) | -1.68 (1.06) | -1.52 (1.02) |
| Science Source Count | | 1.62 (0.62)** | 1.45 (0.60)* | 1.13 (0.57) | 0.91 (0.57) |
| <i>Risk Perceptions</i> | | | | | |
| Hurricane Laura | | | 0.03 (0.01)** | 0.04 (0.01)*** | 0.04 (0.01)*** |
| General Hurricanes | | | 0.09 (0.04)* | 0.07 (0.03)* | 0.06 (0.03) |
| <i>Political Beliefs</i> | | | | | |
| Conservative Politics | | | 1.89 (0.49)*** | 1.92 (0.50)*** | 2.00 (0.50)*** |
| Egalitarian Worldview | | | 0.41 (0.17)* | 0.40 (0.17)* | 0.40 (0.18)* |
| Individualist Worldview | | | -0.24 (0.17) | -0.23 (0.16) | -0.24 (0.18) |
| Trust in Others | | | 0.20 (1.06) | 0.28 (1.04) | 0.47 (1.02) |
| <i>Treatment Groups</i> | | | | | |
| Source: Forecaster | | | | 0.76 (1.23) | 1.13 (1.19) |
| Type: Strength | | | | -0.31 (1.27) | -0.15 (1.28) |
| Probability: Twice as Likely | | | | 6.97 (1.52)*** | 6.80 (1.52)*** |
| Probability: Uncertain | | | | -3.63 (1.35)** | -3.39 (1.35)* |
| Evacuated | | | | | -2.32 (2.15) |
| <i>Evacuation order (SR)</i> | | | | | |
| Mandatory | | | | | 0.15 (3.19) |
| Voluntary | | | | | 0.33 (2.10) |
| Don't Know | | | | | 1.34 (1.95) |
| <i>Evacuation Info. Importance</i> | | | | | |
| Media | | | | | 0.08 (0.80) |
| Local Authorities | | | | | 0.69 (0.81) |
| Neighbors | | | | | 0.35 (0.83) |
| Friends & Family | | | | | 1.84 (0.84)* |
| <i>Evacuation Info. Source</i> | | | | | |
| Weather Reports | | | | | -0.11 (1.41) |
| NHC Warnings/Advisories | | | | | 2.36 (1.48) |
| Friends & Family Advice | | | | | -0.54 (1.52) |
| Evacuation Orders | | | | | -0.09 (1.44) |
| <i>Home in Evacuation Zone</i> | | | | | |
| ZIP: Mandatory | | | | | -2.79 (2.82) |
| ZIP: Voluntary | | | | | 0.37 (1.65) |
| SR: Yes | | | | | 0.01 (1.66) |
| SR: Don't Know | | | | | 2.06 (1.62) |
| Mobile Home | | | | | -0.39 (3.97) |
| Renter | | | | | -0.71 (1.31) |
| Deviance | 238422.49 | 232577.51 | 214556.79 | 199124.66 | 192862.58 |
| Dispersion | 292.18 | 285.02 | 262.94 | 244.03 | 236.35 |
| R ² | 0.72 | 0.72 | 0.74 | 0.76 | 0.77 |
| Num. obs. | 817 | 817 | 817 | 817 | 817 |

***p < 0.001; **p < 0.01; *p < 0.05; †p < 0.1

SR = self-report

Appendix D. Cross-Tabulations of Evacuation and Political Attachments

| | | | Evacuated? | |
|--------------------|-------------------------------|---------|------------|------|
| | | | Yes | No |
| Party affiliation | <i>Republican</i> | (n=272) | 21.8 | 78.2 |
| | <i>Democrat</i> | (n=392) | 27.1 | 72.9 |
| | <i>Independent/other</i> | (n=185) | 13.5 | 86.5 |
| Political ideology | <i>Extremely liberal</i> | (n=59) | 44.4 | 55.6 |
| | <i>Liberal</i> | (n=111) | 20.4 | 79.6 |
| | <i>Slightly liberal</i> | (n=84) | 25.0 | 75.0 |
| | <i>Moderate</i> | (n=329) | 19.0 | 81.0 |
| | <i>Slightly conservative</i> | (n=91) | 13.9 | 86.1 |
| | <i>Conservative</i> | (n=119) | 21.3 | 78.7 |
| | <i>Extremely conservative</i> | (n=57) | 36.9 | 63.1 |

Appendix E. Logistic Regression Results for Hurricane Laura Evacuation Decision

| | Model 1 | Model 2 | Model 3 | Model 4 |
|------------------------------------|----------------|-----------------|-----------------|-----------------|
| Intercept | -1.90 (0.59)** | -2.33 (0.69)*** | -4.33 (1.13)*** | -4.41 (1.30)*** |
| Vulnerable Near Miss | 0.18 (0.17) | 0.06 (0.17) | -0.24 (0.21) | -0.15 (0.26) |
| Trust in Science | 0.03 (0.07) | -0.12 (0.08) | -0.20 (0.09)* | -0.26 (0.11)* |
| <i>COVID-19 and Science Info.</i> | | | | |
| COVID Concern | | 0.46 (0.11)*** | 0.13 (0.13) | -0.10 (0.14) |
| Weather Info. Frequency | | -0.44 (0.21)* | -0.33 (0.25) | -0.09 (0.29) |
| Weather Source Count | | 0.19 (0.09)* | 0.11 (0.11) | -0.02 (0.13) |
| Science Info. Frequency | | 0.31 (0.19) | 0.44 (0.23) | 0.51 (0.26)* |
| Science Source Count | | 0.14 (0.09) | 0.04 (0.11) | -0.03 (0.13) |
| <i>Risk Perceptions</i> | | | | |
| Hurricane Laura | | | 0.01 (0.00)*** | 0.01 (0.00)*** |
| General Hurricanes | | | 0.01 (0.01) | 0.01 (0.01) |
| <i>Political Beliefs</i> | | | | |
| Conservative Politics | | | -0.07 (0.09) | -0.09 (0.10) |
| Egalitarian Worldview | | | 0.01 (0.03) | -0.00 (0.04) |
| Individualist Worldview | | | 0.06 (0.03) | 0.04 (0.04) |
| Trust in Others | | | 0.56 (0.19)** | 0.38 (0.22) |
| <i>Evacuation Order (SR)</i> | | | | |
| Mandatory | | | | 3.16 (0.47)*** |
| Voluntary | | | | 2.04 (0.34)*** |
| Don't Know | | | | 0.64 (0.43) |
| <i>Evacuation Info. Importance</i> | | | | |
| Media | | | | 0.08 (0.19) |
| Local Authorities | | | | 0.01 (0.23) |
| Neighbors | | | | 0.37 (0.16)* |
| Friends & Family | | | | -0.01 (0.18) |
| <i>Evacuation Info. Source</i> | | | | |
| Weather Reports | | | | -0.96 (0.29)*** |
| NHC Warnings/Advisories | | | | 0.38 (0.31) |
| Friends & Family Advice | | | | 0.17 (0.29) |
| Evacuation Orders | | | | -0.52 (0.31) |
| <i>Home in Evacuation Zone</i> | | | | |
| ZIP: Mandatory | | | | 0.06 (0.66) |
| ZIP: Voluntary | | | | 0.04 (0.43) |
| SR: Yes | | | | 0.84 (0.34)* |
| SR: Don't Know | | | | -0.04 (0.37) |
| Mobile Home | | | | -1.54 (0.65)* |
| Renter | | | | -0.50 (0.35) |
| Deviance | 871.05 | 787.20 | 598.80 | 441.46 |
| Dispersion | 1.00 | 1.04 | 0.89 | 0.92 |
| Pseudo-R ² (McFadden) | 0.00 | 0.10 | 0.31 | 0.49 |
| Num. obs. | 817 | 817 | 817 | 817 |

***p < 0.001; **p < 0.01; *p < 0.05; ·p < 0.1

SR = self-report