

## Citations for email text

### DHS (subject line)

Pandemics have been the #1 or #2 (after drugs) non-CBRN risk on DHS's list since 2011.<sup>1</sup> The SNS was empty<sup>2</sup> and the Nation was unprepared<sup>3</sup> because<sup>4</sup> we<sup>5</sup> suppressed those risk assessments.<sup>6</sup> We are still doing so.<sup>7, 8, 9, 10, 11</sup>

### DHS/FEMA (summary)

The DHS/FEMA Strategic National Risk Assessment (SNRA)<sup>12</sup> is the science-based comparative national risk assessment of natural, accidental, and adversarial hazards that FEMA's National Preparedness System is based on.<sup>13, 14</sup> It has been locked up since 2011.<sup>15, 16</sup>

While classification and disagreements with DHS HQ had a lot to do with that before 2015,<sup>17</sup> neither has been an obstacle since.<sup>18</sup> As far as I know, the decisions to suppress the science that FEMA's plans,<sup>19</sup> requirements,<sup>20</sup> and doctrine<sup>21</sup> are based on have been made by DHS/FEMA itself since 2015.

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*Pandemics have been the #1 or #2 (after drugs) non-CBRN risk on DHS's list since 2011.*

<sup>1</sup> Page 6 below and cited references. Figures 1 (pandemics) and 2 (drugs) below, fatality risk.

*The SNS was empty because we suppressed those risk assessments.*

<sup>2</sup> Pages 7-8 below and cited references.

*The Nation was unprepared because we suppressed those risk assessments.*

<sup>3</sup> DHS (12/22/2020) national preparedness report ([https://www.fema.gov/sites/default/files/documents/fema\\_2020-national-preparedness-report.pdf](https://www.fema.gov/sites/default/files/documents/fema_2020-national-preparedness-report.pdf)) page 2 callout block. FEMA (1/15/2021) initial assessment report on pandemic response to COVID-19 ([https://www.fema.gov/sites/default/files/documents/fema\\_covid-19-initial-assessment-report\\_2021.pdf](https://www.fema.gov/sites/default/files/documents/fema_covid-19-initial-assessment-report_2021.pdf)) pp. 100-102.

<sup>4</sup> Pages 8, 10, 12, 15 below and cited references.

*We suppressed those risk assessments.*

<sup>5</sup> DHS/FEMA research lead (me), personal knowledge. Agency leaders, paragraphs 14, 16, 17 ("FEMA's position") DHS/FEMA National Preparedness Directorate (NPD) 4/30/2019 declaration 28-1, *Public Employees for Environmental Responsibility (PEER) v. U.S. Department of Homeland Security* 1:2018-cv-00158, D.D.C., at <https://www.courtlistener.com/docket/6284501/28/1/public-employees-for-environmental-responsibility-v-united-states/>. Agency managers, paragraphs 11, 13 ("NPD leadership"), NPD (4/30/2019) 28-1. Agency staff, paragraph 6 FEMA Disclosure Branch 3/1/2019 declaration 22-1 *PEER v. DHS*, at <https://www.courtlistener.com/docket/6284501/22/1/public-employees-for-environmental-responsibility-v-united-states/>. DHS HQ, 2012-15 history described in March 2019 SNRA FAQ for Congress; improper b(5) withholdings in the FOIA of note 9.

<sup>6</sup> Pages 8-13 below and cited references, and 10/16/2020 letter to committee staff pp. 5-6.

*We are still suppressing those risk assessments.*

<sup>7</sup> Pages 9-11 and 13-15 below, and cited references.

<sup>8</sup> DHS SNRA 2011 (FOIA requested items 2b, 4), FEMA SNRA 2015 (1, 2a, 3): FEMA (2018, December 10). Final response, FEMA FOIA 2016-FEFO-00165 and appeals. At <https://bd02.github.io/external/Reorganized/FOIAs%20for%20SNRA%20documentation/FOIA%20correspondence%202017-FEFO-00165/SNRA%20FOIA%20correspondence%202016-18.zip>. Note: the SNRA 2011 requested document #5 and the SNRA 2015 requested documents #6-8 were released in full (<https://bd02.github.io/external/Released%20documentation/Originals%20OCRed/Split%20by%20redaction%20status/Released%20in%20full.zip>), and the SNRA 2011 seven-page public summary (<https://www.dhs.gov/xlibrary/assets/rma-strategic-national-risk-assessment-ppd8.pdf>) has always been public (on DHS's website: FEMA removed it from its own site in fall 2020 [[https://web.archive.org/web/2020\\*/https://www.fema.gov/media-library-data/20130726-1854-25045-5035/rma\\_strategic\\_national\\_risk\\_assessment\\_ppd8\\_1\\_.pdf](https://web.archive.org/web/2020*/https://www.fema.gov/media-library-data/20130726-1854-25045-5035/rma_strategic_national_risk_assessment_ppd8_1_.pdf)]).

<sup>9</sup> DHS HSNRC 2013 (DHS HQ): DHS (2019, June 17), Denial in full, FOIA request 2017-HQFO-00005, portions withheld by b(5) [the b(1) withholdings are proper for certain segregable parts, but the b(5) withholdings are not (DHS cites these finalized studies as non-political authorities for political decisions, <https://docs.house.gov/meetings/HM/HM09/20150708/103703/HHRG-114-HM09-Wstate-SmithT-20150708.pdf>)]. DHS FOIA annual report raw data, PRIV FY 2019, tab raw data requests, row 43766. At <https://www.dhs.gov/publication/annual-foia-report-raw-data>, [https://www.dhs.gov/sites/default/files/publications/fy19\\_raw\\_data\\_priv.xlsx](https://www.dhs.gov/sites/default/files/publications/fy19_raw_data_priv.xlsx). The 2018 HSNRC methods documentation is public, [https://www.rand.org/pubs/research\\_reports/RR2140.html](https://www.rand.org/pubs/research_reports/RR2140.html), but internally and externally the risk content (which is displayed in part in figure 1) is in the same unclear status as the 2018 QHSR.

<sup>10</sup> SNRA 2011, 2015: NPD (4/30/2019) 28-1, current status in docket at <https://www.courtlistener.com/docket/6284501/public-employees-for-environmental-responsibility-v-united-states/>.

<sup>11</sup> SNRA: FEMA internal orders 2/21/2017, 5/11/2021.

<sup>12</sup> Brief description, p. 12.

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<sup>13</sup> U.S. Department of Homeland Security (2011, September). National preparedness goal, 1st edition, pp. 3-4. At <https://www.fema.gov/pdf/prepared/npg.pdf>.

<sup>14</sup> U.S. Department of Homeland Security (2015, September 30). National preparedness goal, 2nd edition, pp. 4-5. At [https://www.fema.gov/sites/default/files/2020-06/national\\_preparedness\\_goal\\_2nd\\_edition.pdf](https://www.fema.gov/sites/default/files/2020-06/national_preparedness_goal_2nd_edition.pdf).

<sup>15</sup> March 2019 SNRA FAQ for Congress p. 1 (*General*); SNRA FOIA appeal (2018).pdf, pdf pp. 1-4 (unnumbered two pages of 9/24/2018 appeal and numbered pp. 1-2 of 11/1/2017 appeal letter). Attached, or at <https://bd02.github.io/external/Reorganized/Sent%20to%20committees%20March%202019/>.

<sup>16</sup> Parenthetically, the SNRA’s climate change analysis is the only Government climate study that I know of that has been suppressed by both parties. 2015: White House edits to SNRA climate change findings p. 15, November 2015 Findings document (redacted content, Bates page number 000064 production *PEER v. DHS* at <https://www.courtlistener.com/docket/6284501/24/3/public-employees-for-environmental-responsibility-v-united-states/>); outcome, FEMA/NPD SNRA decision briefing 30 November 2016. 2018: Redacted content, Bates numbers 000072, 90-92, 322-338, production *PEER v. DHS* at <https://www.courtlistener.com/docket/6284501/24/3/public-employees-for-environmental-responsibility-v-united-states/>.

<sup>17</sup> U.S. Department of Homeland Security (2011, December 9). SNRA public summary, p. 4. At <https://www.dhs.gov/xlibrary/assets/rma-strategic-national-risk-assessment-ppd8.pdf>.

<sup>18</sup> March 2019 SNRA FAQ for Congress p. 2 (*Security*); SNRA FOIA appeal (2018).pdf, last page (page 2 of October 2016 FOIA request letter 2017-FEFO-00165). Attached, or at <https://bd02.github.io/external/Reorganized/Sent%20to%20committees%20March%202019/>. Since 2015, the classified SNRA (which includes the CBRN risk numbers) has been completely separated from the main unclassified base assessment. Unless noted otherwise, the unclassified 2015-present DHS/FEMA SNRA is the risk assessment that I refer to below.

<sup>19</sup> U.S. Department of Homeland Security (2016, August 18). Protection Federal Interagency Operational Plan (FIOP) 1<sup>st</sup> edition (2016), [https://www.fema.gov/sites/default/files/documents/fema\\_protection-fiop.pdf](https://www.fema.gov/sites/default/files/documents/fema_protection-fiop.pdf) pp. 5-6. Mitigation FIOP 2<sup>nd</sup> ed. (2016), [https://www.fema.gov/sites/default/files/documents/fema\\_mitigation-fiop.pdf](https://www.fema.gov/sites/default/files/documents/fema_mitigation-fiop.pdf) pp. 5-6. Response FIOP 2<sup>nd</sup> ed. (2016), [https://www.fema.gov/sites/default/files/documents/fema\\_response-fiop.pdf](https://www.fema.gov/sites/default/files/documents/fema_response-fiop.pdf) pp. 7-8, B-3, B-4, B-9, B-1.1-1.4. Recovery FIOP 2<sup>nd</sup> ed. (2016), [https://www.fema.gov/sites/default/files/documents/fema\\_recovery-fiop.pdf](https://www.fema.gov/sites/default/files/documents/fema_recovery-fiop.pdf) p. 5.

<sup>20</sup> U.S. Department of Homeland Security (2021, February 25). Risk-based core capabilities, pp. 9, 24, 33-34, A-1-2, 13-14, 17-18, 20-22, 26-29, 31, 47, B-1-3, 11-12, C-3, 5, D-13, E-8-9, F-12, G-16, H-1-2, 9, 12-13, 24-28. Preparedness grants manual. At [https://www.fema.gov/sites/default/files/documents/FEMA\\_2021-Preparedness-Grants-Manual\\_02-19-2021.pdf](https://www.fema.gov/sites/default/files/documents/FEMA_2021-Preparedness-Grants-Manual_02-19-2021.pdf). Core Capabilities, note 14 above.

<sup>21</sup> Note 14.

## Context

PANDEMIC: Disaster agency foresaw killer virus months before COVID-19

E&E News, Thursday, April 9, 2020<sup>22</sup>

The Federal Emergency Management Agency warned last year that a pandemic caused by a novel strain of influenza would cripple the country's response capabilities by driving millions of people into overwhelmed hospitals. The report,<sup>23</sup> which was written before the new coronavirus first surfaced in China, offered these prescient predictions: The deluge of patients would create "a shortage of medical supplies, equipment, beds, and healthcare workers."

FEMA's warning, issued in July, forecast with stunning accuracy the social, economic and personal devastation that the ongoing pandemic has caused.

The report, which has not been previously described, was drafted in collaboration with the White House Office of Science and Technology Policy and other federal organizations. With detail about widespread "social distancing" and "the overcrowding of hospitals and medical centers," the federal government's disaster agency provides perhaps the strongest contradiction of [the President's] assertions that the scope of the current pandemic could not have been foreseen.

...

"Is it really fair to say you had no warning about this?" ABC News' Martha Raddatz asked [FEMA Administrator] Gaynor in a March 22 interview.

"The public health medical mission, statutory lies with HHS," Gaynor replied. "My mission, FEMA, prior to this, [was] national disasters and those catastrophic events that happen."

FEMA has come under increasing scrutiny as it has taken charge of distributing emergency medical supplies and personal protective equipment, known as PPE, to desperate states and hospitals... Lawmakers and governors are questioning the capacity of the Strategic National Stockpile, a repository of supplies that is distributed during public health emergencies. Although the stockpile is controlled by HHS, FEMA is the primary customer, tapping it at least a dozen times since the stockpile was created in 1999, most recently when Hurricane Dorian hit the coast of the U.S. Southeast in August.

The stockpile is not designed to handle the demand for a 50-state pandemic such as COVID-19. [A FEMA spokesperson] said in a recent statement that the agency's "planning assumptions" for the pandemic acknowledged that the stockpile alone "could not fulfill all requirements at the State and tribal level."

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PANDEMIC: Warning about killer virus was preliminary – FEMA.

E&E News, Monday, April 13, 2020<sup>24</sup>

Responding to the story by E&E News, FEMA said its report "was not intended to drive resourcing decisions by itself, but rather to serve as a foundation for a more comprehensive analysis for future decisions." The agency report "was the first step in that process," FEMA said in an email to E&E News...

FEMA said its next step is to "look at national capability" to deal with a catastrophic event and to "support national targets" for building capacity to deal with the events.

...

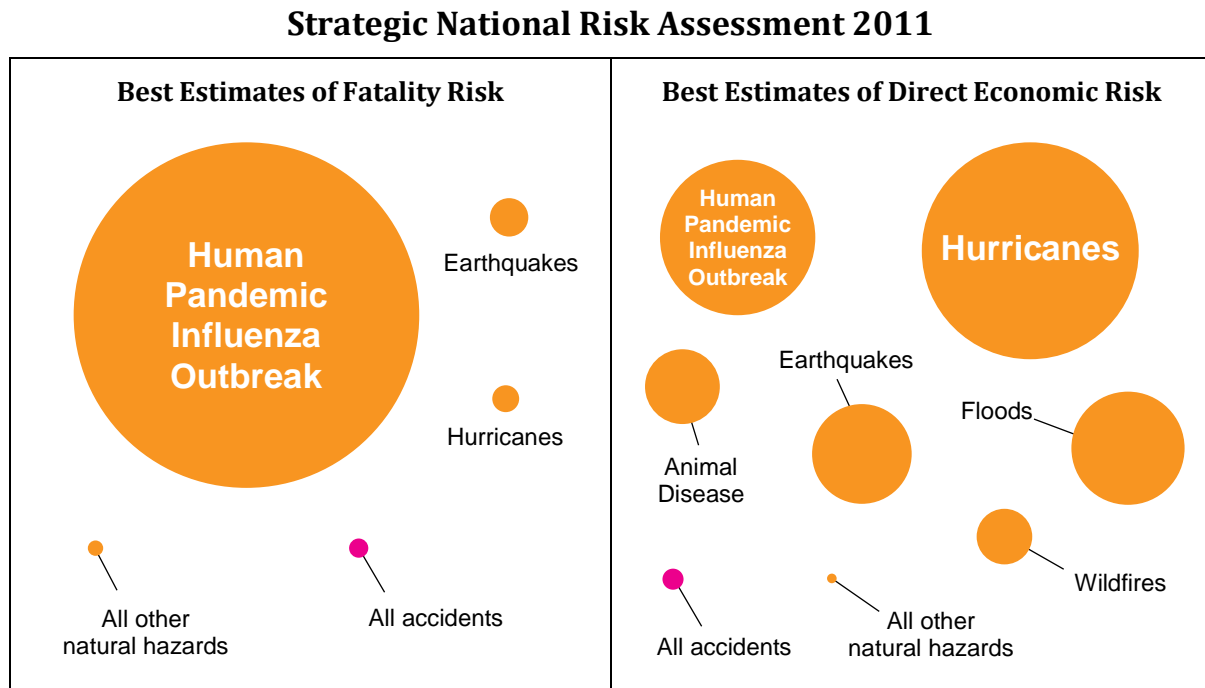
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<sup>22</sup> Frank, Thomas (2020, April 9). Disaster agency foresaw killer virus months before COVID-19. *E&E News*: at <https://www.eenews.net/climatewire/stories/1062824495>. Bracketed [was] is in source, other brackets added.

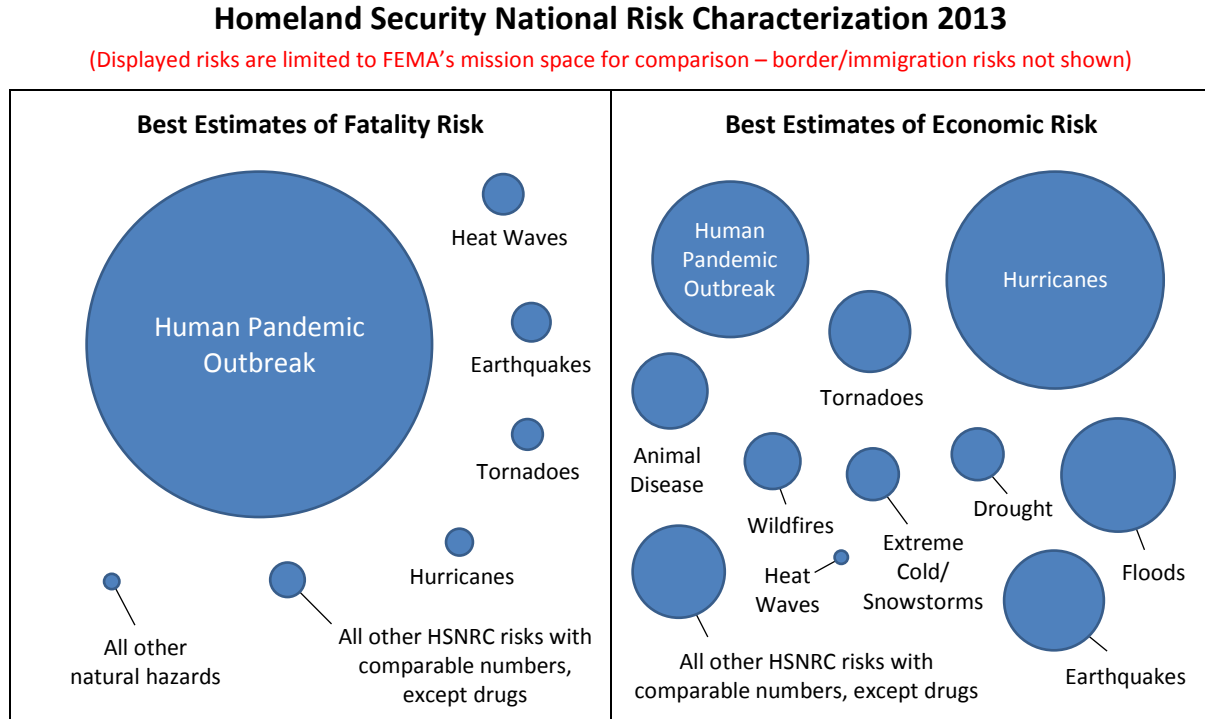
<sup>23</sup> Federal Emergency Management Agency (2019, July 25). 2019 National Threat and Hazard Identification and Risk Assessment (THIRA): overview and methodology. At <https://web.archive.org/web/20190725231745/https://www.fema.gov/media-library/assets/documents/18147>.

<sup>24</sup> Frank, Thomas (2020, April 13). Warning on killer virus was preliminary – FEMA. *E&E News*: at <https://www.eenews.net/climatewire/stories/1062857757> (paywalled original; pdf print at <https://bd02.github.io/external/Reorganized/Sent%20to%20committees%20October%202020/Warning%20about%20killer%20virus%20was%20preliminary%20-%20FEMA%20%28referenced%20article,%20EE%20News%2020200413%29.pdf>).

FIGURE 1: BEST ESTIMATES OF FATALITY AND ECONOMIC RISK IN THE UNCLASSIFIED SNRA AND HSNRC.<sup>25</sup>



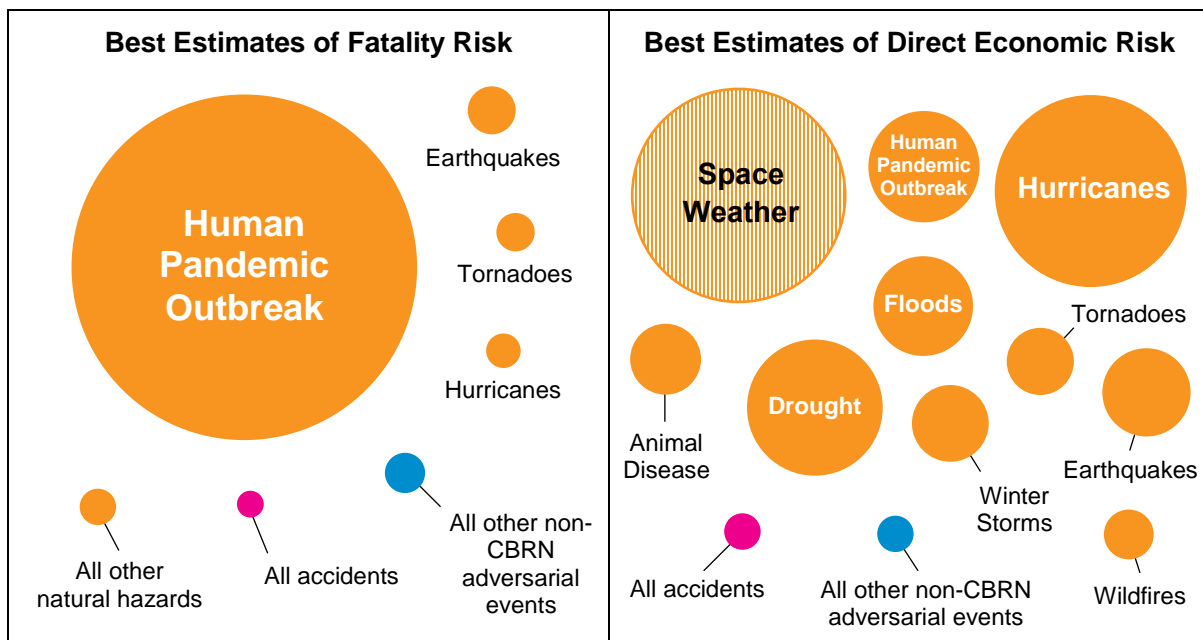
Not depicted: Risks with classified data (all terrorist attacks), cyber attacks, space weather, tsunamis, volcanoes, acts of war, risks outside FEMA's traditional mission space, risks added in later iterations.



Not depicted: Illicit drugs, events with classified data (all terrorist attacks), risks with data gaps (cyber attacks, space weather, tsunamis, volcanoes, illegal immigration), acts of war. On this charts, the displayed risks are limited to FEMA's traditional mission space to enable comparison with the other charts, not because of data challenges or negligible risk in other DHS missions: the fatality and economic risks of Illicit Drugs (which for the 2013 HSNRC include the collective costs to users and society from individual Americans' use of illegal drugs smuggled across an air/land/sea border or other DHS screened route) are larger than those of all FEMA-mission-space events displayed above, including pandemics. This chart is reproduced with the Illicit Drugs numbers at the end of this letter (figure 2).

<sup>25</sup> The SNRA's and 2013 HSNRC's primary charts resemble figure 7, page 54 of <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/ll-hzrds-sssmnt/ll-hzrds-sssmnt-eng.pdf>. That format represents more data and critical uncertainties, but differences in overall best-estimate risk magnitudes aren't as clear as they are on the 'planets' charts reproduced above.

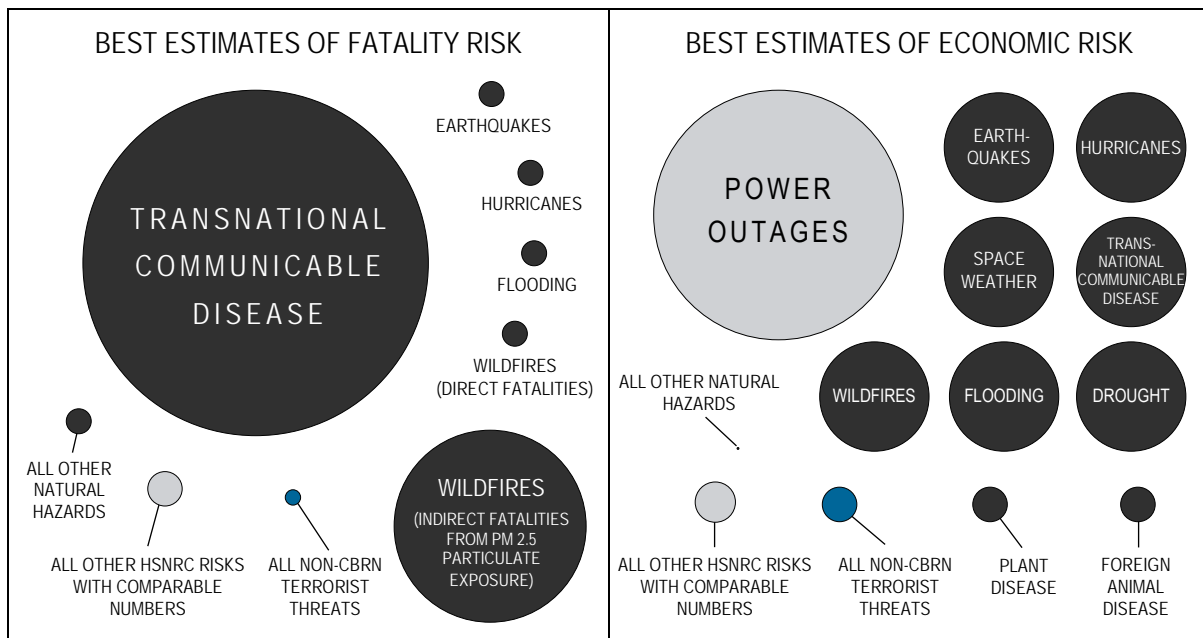
## Strategic National Risk Assessment 2015



Not depicted: Events with classified data (CBRN terrorist attacks), risks with data gaps or data comparability challenges (cyber attacks, cross-cutting events, qualitatively assessed events), acts of war, risks outside FEMA's traditional mission space.

## HOMELAND SECURITY NATIONAL RISK CHARACTERIZATION 2018

HSNRC 2018 source data on DHS planets chart (displayed risks are primarily in FEMA's mission space)



Unlike the other three, this chart does **NOT** itself come from the 2018 HSNRC (at least not in any decks or documents that I have seen), but represents HSNRC 2018 data in the same format as the other assessments for purposes of comparison. Sets of uniformly sized circles represent the geometric midpoints of reported common order of magnitude bins, and the other circles depict the underlying data from the documentation and its cited public or SNRA sources. Not depicted: events with classified data (CBRN), unknown shareability (counterfeit goods), data gaps or limitations (cyber events, illegal migration, trans-national drug trafficking), acts of war. Plant disease depicted as same magnitude as animal disease. Deaths from illicit drug use are not depicted, but that is because of counting differences between the 2013 and 2018 assessments rather than [my] deliberate omission.

## Pandemic risk

Every one of the four science-based national risk assessments that DHS analysts have made since 2011 has assessed the human life risks from a pandemic of natural origin to be greater than those of every threat and hazard that FEMA has responded to in its forty year history – combined (figure 1).

- The 2011 Strategic National Risk Assessment (SNRA) and 2013 Homeland Security National Risk Characterization (HSNRC) pandemic analysis, based on the ‘moderate’ version of National Planning Scenario #3 with updated numbers from CDC, projected 140,000 – 440,000 U.S. deaths [153,000 to 480,000 in a U.S. (including territories) population of 335.1 million] in the first wave of the pandemic.<sup>26, 27, 28</sup>
- The 2015 SNRA projected 77,000 – 230,000 [84,000 – 250,000] U.S. deaths for its median 1 in 30 year pandemic scenario, together with the larger set of probability-tagged pandemic events ranging from 12,300 to 1.94 million [13,400 to 2.1 million] U.S. deaths<sup>29</sup> that the Nation could expect to experience every 10 to 60 years or so.<sup>30</sup> The SNRA’s estimate for a pandemic exceeding 547,000 [597,000] U.S. deaths in a population of 307 [335] million is 1 in 120 years.<sup>31</sup>
- The 2018 HSNRC used the same median consequence scenario, but with a higher best estimate return period of 25 years.<sup>32</sup>

The one national preparedness success<sup>33</sup> of this pandemic – the fall 2019 cost-benefit analysis that resulted in the project that was later renamed Operation Warp Speed<sup>34</sup> – used the same 2015 CDC sources<sup>35</sup> and probabilistic risk assessment methods<sup>36</sup> as the 2015 SNRA. The CEA’s scenario range corresponds to the middle fifty percent (roughly the 25<sup>th</sup> to 75<sup>th</sup> percentile range bounded above by the 547,000 death line) of table 12, p. 158 of the SNRA Technical Appendix.<sup>37</sup>

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<sup>26</sup> SNRA 2015 technical appendix [TA] pp. 366-368, numbers. CDC also provided the SNRA’s probability estimate (1/30 years).

<sup>27</sup> Model parameters: U.S. Government (2006, March). National Planning Scenarios v. 21.3, at <https://web.archive.org/web/20140502084541/https://www.llis.dhs.gov/sites/default/files/NPS-LLIS.pdf>, pp. 3-6, 3-7, 3-12, 3-16. Estimates reflect a single pandemic wave, pp. 3-11 – 3-12.

<sup>28</sup> The 2014 QHSR Bio Study (<https://www.dhs.gov/sites/default/files/publications/2014-qhsr-final-508.pdf>) broadened the HSNRC’s pandemic scenario to 1,000-2 million U.S. deaths for an event of natural origin, and 80,000-750,000 U.S. deaths for a 1/80 year accident.

<sup>29</sup> SNRA 2015 technical appendix [TA] table 12 p. 158, or SNRA Resource for Planners [RFP] table 4 p. 184.

<sup>30</sup> TA p. 145 [RFP p. 173] table 1B top row (low/best/high frequency 0.017=1/60, 0.033=1/30, 0.10=1/10) or p. 148 [p. 175], *Frequency*.

<sup>31</sup> TA table 12 p. 158, or SNRA Resource for Planners [RFP] table 4 p. 184, conditional probability given event occurrence 0.256, times overall event best estimate probability of 1/30 years.

<sup>32</sup> DHS 2018 HSNRC risk summary sheet, transnational communicable disease, p. 251. The HSNRC 2018 data referenced or depicted in this document are limited to HSNRC numbers that either came from public sources, one of the other three assessments which I worked on as an analyst, or aggregated from multiple numbers that are impossible to pick apart from the depicted aggregation. The 2018 HSNRC’s plant disease numbers come from another project I worked on (the QHSR Bio Study); since I’m not sure of their shareability, I’ve arbitrarily represented them as being in the same order-of-magnitude bin as animal disease for visualization purposes. HSNRC source document is UNCLASSIFIED // FOR OFFICIAL USE ONLY; extracted information is UNCLASSIFIED without caveats.

<sup>33</sup> U.S. Department of Homeland Security (2020, December 22). National preparedness report, page 57. At [https://www.fema.gov/sites/default/files/documents/fema\\_2020-national-preparedness-report.pdf](https://www.fema.gov/sites/default/files/documents/fema_2020-national-preparedness-report.pdf).

<sup>34</sup> Zinberg et al (2020, August 18). The White House prepared for a pandemic. *Wall Street Journal*: at <https://www.wsj.com/articles/the-white-house-prepared-for-a-pandemic-11597792593> (Frank [4/9/2020] also touches on this analysis).

<sup>35</sup> U.S. Centers for Disease Control and Prevention (CDC) (2015, April 10). CDC modeling efforts in response to a potential public health emergency: influenza A(H7N9) as an example. *Clinical Infectious Diseases* special issue 60(suppl. 1) (issue date 1 May 2015): at [https://academic.oup.com/cid/issue/60/suppl\\_1](https://academic.oup.com/cid/issue/60/suppl_1). Meltzer et al (pp. S1-8, [https://academic.oup.com/cid/article/60/suppl\\_1/S1/356555](https://academic.oup.com/cid/article/60/suppl_1/S1/356555)) define the common scenario set used by the vaccine-infrastructure paper (Biggerstaff et al. pp. S20-29, [https://academic.oup.com/cid/article/60/suppl\\_1/S20/356419](https://academic.oup.com/cid/article/60/suppl_1/S20/356419)) that CEA used, the PPE paper (Carias et al. pp. S42-51, [https://academic.oup.com/cid/article/60/suppl\\_1/S42/356585](https://academic.oup.com/cid/article/60/suppl_1/S42/356585)) referenced below, the other applications in this CDC-modeling special issue, and the 2015 SNRA.

<sup>36</sup> White House Council of Economic Advisers (CEA) (2019, September 5). Mitigating the impact of pandemic influenza through vaccine innovation. At <https://trumpwhitehouse.archives.gov/wp-content/uploads/2019/09/Mitigating-the-Impact-of-Pandemic-Influenza-through-Vaccine-Innovation.pdf>.

<sup>37</sup> A 2010 back-of-the-envelope version with risk numbers similar to the 2011 SNRA’s scenario is in the previous Administration’s study (<https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST-Influenza-Vaccinology-Report.pdf> p. 17).



Had the Federal Government used the SNRA<sup>38</sup> and these models<sup>39</sup> as the national all-hazards all-missions all-of-Government decision support tools that they were designed to be<sup>40, 41</sup> – even for just the one application of prioritizing what goes into the Strategic National Stockpile (SNS) that DHS created the SNRA’s classified core to do<sup>42, 43</sup> – on January 1, 2020 the United States would have had more than enough PPE for every single front-line medical and long-term care worker in America – without re-use or rationing – for the entirety of this past year.<sup>44, 45, 46, 47, 48</sup>

<sup>38</sup> Summary, p. 12 below; March 2019 SNRA FAQ for committee staff (attached or at <https://bd02.github.io/external/Reorganized/Sent%20to%20committees%20March%202019/SNRA%20FAQ%2020190319%20redacted.pdf>). The 2011 SNRA public summary is at <https://www.dhs.gov/xlibrary/assets/rma-strategic-national-risk-assessment-ppd8.pdf>.

<sup>39</sup> Heinrichs, Rebecca (2020, April 1). The truth about the National Security Council’s pandemic team. *National Review*: at <https://www.nationalreview.com/2020/04/coronavirus-truth-national-security-council-pandemic-team/>. Earliest use of these CDC models that I know of (2014), *Wall Street Journal* 4/30/2020 p. A1 (Many missteps led to mask shortages), <https://www.wsj.com/articles/miscalculation-at-every-level-left-u-s-unequipped-to-fight-coronavirus-11588170921>.

<sup>40</sup> World Health Organization (2016, June). Joint external evaluation of International Health Regulations (IHR) core capacities of the United States of America, pp. 34-35. At <https://apps.who.int/iris/bitstream/handle/10665/254701/WHO-WHE-CPI-2017.13-eng.pdf>.

<sup>41</sup> SNRA FOIA appeal (2018).pdf numbered page 8 (tenth page in the pdf file) cited references, and numbered page 6 note 15. (Attached, or <https://bd02.github.io/external/Reorganized/Sent%20to%20committees%20March%202019/SNRA%20FOIA%20appeal%20282018%29.pdf>.)

<sup>42</sup> U.S. Department of Homeland Security (2008, June). WMD terrorism risk assessment in DHS Science & Technology. Steve Bennett. Presentation, S&T Stakeholders Conference, June 2-5 2008: at <https://ndiastorage.blob.core.usgovcloudapi.net/ndia/2008/homest/benn.pdf>. The classified terrorism risk assessments created by Homeland Security Presidential Directives (HSPD) HSPD-10 (Biodefense for the 21<sup>st</sup> century) and HSPD-18 (Medical countermeasures against weapons of mass destruction) were used to risk-prioritize SNS purchases of countermeasures specific to CBRN terrorist attacks until 2018 (<https://www.latimes.com/politics/story/2019-07-17/times-investigation-homeland-security-gutted-programs-aimed-at-stopping-wmd-terrorism>). However, resourcing decisions for other risks and overall SNS funding continued to be made by human judgement, rather than the expanded all-hazards versions of them (the SNRA and HSNRC) which disappeared.

<sup>43</sup> The SNRA’s comparative methodology and the frequency, fatality, and direct economic loss metrics come from the DHS Terrorism Risk Assessments. (The 2011 SNRA wildfire and chemical accident chapters were my first learner projects at RMA. The textbook I used to complete them was one of the methodological appendices from the 2008 Bioterrorism Risk Assessment [BTRA]).

<sup>44</sup> In combination with domestic production (<https://www.hassan.senate.gov/imo/media/doc/SCTF%20Demand%20PPE%20Chart.pdf>): Two billion N95 respirators (CDC), 17 million face shields (ASPR), four billion gowns (ASPR). In combination with domestic production and projected imports [gap fill]: 100-400 million surgical masks (CDC), 19 billion gloves (ASPR). CDC: CDC 2015 national resourcing model, notes 45, 46 below. ASPR: Numbers scaled in proportion to N95s using 2018 ASPR TRACIE PPE calculator (<https://asprtracie.hhs.gov/technical-resources/resource/6457/hospital-personal-protective-equipment-planning-tool>), note 47 below. 23,000 ventilators, note 48.

<sup>45</sup> N95 masks: Carias et al (2015, April 10). Potential demand for respirators and surgical masks during a hypothetical influenza pandemic in the United States. *Clinical Infectious Diseases* 60(suppl. 1) S42-51. At [https://academic.oup.com/cid/article/60/suppl\\_1/S42/356585](https://academic.oup.com/cid/article/60/suppl_1/S42/356585).

The 2015 SNRA’s median scenario (25% attack rate, 0.1-0.3% CFR) represents a severity 4 to low-severity-5 scale pandemic on table 1 of Meltzer et al ([https://academic.oup.com/cid/article/60/suppl\\_1/S1/356555](https://academic.oup.com/cid/article/60/suppl_1/S1/356555)), the scenario space that defines the risk inputs of the national resourcing model for pandemic events that the CDC published in April 2015 ([https://academic.oup.com/cid/issue/60/suppl\\_1](https://academic.oup.com/cid/issue/60/suppl_1)). The SNRA’s scenario range spans the interval between the low and high severity and transmissibility scenarios of the model’s PPE chapter (Carias et al, [https://academic.oup.com/cid/article/60/suppl\\_1/S42/356585](https://academic.oup.com/cid/article/60/suppl_1/S42/356585)), corresponding to 2 billion N95 respirators (Carias table 3 base case, midpoint of the 20% and 30% attack rate estimates for the SNRA’s 25% attack rate fatality scenario set = 1982-2624 million N95s for low-severity and 2172-3085 million N95s for high-severity scenarios, low end of both ranges, rounded). With no mitigation measures other than social distancing, no attenuation in projected demand, no imports, no increase in domestic production above the 35 million per month U.S. baseline in January 2020, no decontamination technologies, and no vaccine – i.e. all of the blue bar increases in need, and none of the green or orange increases to supply above the 35 million/month dark green bars of early 2020 (slide 4, <https://www.hassan.senate.gov/imo/media/doc/SCTF%20Demand%20PPE%20Chart.pdf>) – that would have taken the United States through June 2021 in the absence of any further intervention.

I want to stress that the completeness of that sufficiency is true only for the N95 respirators, which were in shortest supply during the past year. Everything that FEMA flew in – **everything** that my FEMA colleagues did in the response – would have been every bit as vital and needed and life-saving and heroic as it was in the history that really happened. But they wouldn’t have had to fight the impossible.

Each of the applications in this CDC resourcing model ([https://academic.oup.com/cid/issue/60/suppl\\_1](https://academic.oup.com/cid/issue/60/suppl_1)), including the vaccine-infrastructure chapter (Biggerstaff et al, [https://academic.oup.com/cid/article/60/suppl\\_1/S20/356419](https://academic.oup.com/cid/article/60/suppl_1/S20/356419)) that the CEA’s cost-benefit analysis used as its intermediate source, used the same scenario set as the 2015 SNRA (Meltzer et al, [https://academic.oup.com/cid/article/60/suppl\\_1/S1/356555](https://academic.oup.com/cid/article/60/suppl_1/S1/356555)). Since this paper was still in press when we launched the SNRA update, CDC sent us the preprints and told us which numbers to use.

<sup>46</sup> Surgical masks, Carias et al, 100-400 million masks. This would have filled the small projected future supply gaps in the Government’s chart, but not in the absence of continued imports from overseas (slide 6 [<https://www.hassan.senate.gov/imo/media/doc/SCTF%20Demand%20PPE%20Chart.pdf>]).

<sup>47</sup> Since the 2015 CDC journal issue does not estimate projected needs for other kinds of PPE in these 2015 models, the most authoritative source is a CDC PPE calculator which the HHS office of the Assistant Secretary for Preparedness and Response (ASPR) adapted to pandemic influenza (<https://asprtracie.hhs.gov/technical-resources/resource/6457/hospital-personal-protective-equipment-planning-tool>). Since this model was made for hospitals rather than communities it scales to workforce size rather than population illness and hospitalization numbers, so the relevant output numbers are ratios relative to the N95 resource needs determined by the CDC model above. (I am making the assumption that gown, glove, and face shield consumption relative to N95 mask consumption by non-hospital workers is comparable to the ratio for hospital workers, which seems a safe assumption as a lower bound.)

The Government has had detailed, comprehensive tools for connecting risk to resources for at least a decade. While the resourcing parts are well known,<sup>49</sup> the tools on the risk front end – the risk assessments that provide national and community decision-makers, given their personal values, the information they need to know which risks and which resources they need to prioritize over others to protect their people<sup>50</sup> – are not. We buried them.<sup>51</sup>

## Justification for 5 U.S.C. § 2302 disclosure

I am disclosing this information because it evidences censorship of science, fraud, waste, and violations of law and policy, and because its suppression harmed our employers. The purpose of this section is to describe my reasonable belief for these things that is necessary for this disclosure to be legal by 5 U.S.C. § 2302.

The tables for the different disease scenarios are distributed between the different tabs of the spreadsheet referenced above (a section 508 compliant PDF version is at <https://files.asprtracie.hhs.gov/documents/aspr-tracie-hospital-ppe-planning-tool.pdf>): the total sums for each scenario relative to the total N95 mask requirement (i.e. if your scenario needs X N95 masks, how many of each other kind of PPE will you also need) are summarized below.

PPE NEEDS RELATIVE TO N95 MASKS, FROM ASPR PPE CALCULATOR (2018)\*

Per N95 mask	EVD VHF		MERS SARS		Pandemic	
	Initial	Hosp.	Initial	Hosp.	Inpatient	ED
N95	1.00	1.00	1.00	1.00	1.00	1.00
Gloves	5.14	10.55	4.40	6.67	9.52	16.19
Gowns	1.05	1.00	1.00	1.40	2.09	3.05
Face shields	1.00	1.00	1.00	1.00	0.0162	0.0085
Boot/shoe cover	2.00	3.09	2.00	2.80	2.12	3.52

Using the pandemic influenza rather than the MERS/SARS model (because the purpose of these calculations is not to show what the projections would have been with the benefit of hindsight, but the assumptions that would have been applied at the time) and, to be conservative, applying the lower of the other-PPE-to-N95 ratios between the two tabs (9.52 glove sets/N95s and 2.09 gowns/N95s from the inpatient tab and 0.0085 face shields / N95s from the ED tab) to the two billion N95 masks of the 2015 SNRA's median scenario results in total projected stockpile requirements of 17 million face shields, four billion gowns, and 19 billion gloves.

The gowns would have covered the demand-supply gap for the remainder of the pandemic with domestic production alone (<https://www.hassan.senate.gov/imo/media/doc/SCTF%20Demand%20PPE%20Chart.pdf> slide 5), as would have the face shields given the added domestic production of non-traditional suppliers (Ford, Boeing, universities, and so on, slide 8). The projected number of gloves also would have been more than sufficient to meet any gaps, given expected continued *imports* from overseas, but would have lasted only two or three months by themselves at most had those been cut off (slide 7).

\* HHS Office of the Assistant Secretary for Response and Prevention (ASPR) (2018, December 11). Hospital personal protective equipment planning tool. ASPR TRACIE: at <https://asprtracie.hhs.gov/technical-resources/resource/6457/hospital-personal-protective-equipment-planning-tool>, pdf version at <https://files.asprtracie.hhs.gov/documents/aspr-tracie-hospital-ppe-planning-tool.pdf>, calculating tool at <https://files.asprtracie.hhs.gov/documents/aspr-tracie-hospital-ppe-planning-tool.xlsx>.

<sup>48</sup> A second paper in this issue by Meltzer et al ([https://academic.oup.com/cid/article/60/suppl\\_1/S52/356562](https://academic.oup.com/cid/article/60/suppl_1/S52/356562)) projects peak national ventilator need for the same combination of scenarios as Carias et al. The endpoint of one of these scenarios (20% attack rate, 0.25% CFR [high severity]) corresponding to the 2015 SNRA best estimate ( $0.25\% \times 20\% \times 310 \text{ million} = 155,000 \approx 0.20\% \times 25\% \times 307 \text{ million} = 154,000$  fatalities, 1.2 million vs. 1.4 million hospitalizations) has a projected need of 23,250 ventilators (source table 3).

<sup>49</sup> E.g. DHS 2007 Target Capabilities List at <https://www.fema.gov/pdf/government/training/tcl.pdf> pp. 460-463, HHS 2010 PHEP hospital surge model <https://archive.ahrq.gov/prep/hospurgemodel/description/description3.htm>, CDC 2015 tools discussed above.

<sup>50</sup> U.S. Department of Homeland Security (2011, April). Page 11, first paragraph. Page 9, strategic planning, capabilities-based planning, resource decisions. Risk management fundamentals: homeland security risk management doctrine. At <https://www.dhs.gov/xlibrary/assets/rma-risk-management-fundamentals.pdf>.

<sup>51</sup> Notes 54-57 below.



Our suppression of this risk information degraded the Federal Government's capability to make risk-based resourcing decisions across missions and Departments,<sup>52</sup> and state and local government partners' capabilities to protect their own people against their own greatest risks.<sup>53</sup> But we continue to keep it buried today.<sup>54, 55, 56, 57</sup>

We avoid accountability by telling different things to different people.

- We tell the courts that FEMA never actually used the (2015) SNRA, because FEMA has been using other risk tools in its place since 2015.<sup>58</sup>
- We tell the press that those other tools are brand new<sup>59</sup> – so new that the Government can't be blamed for failing to prepare the Nation for a disaster matching the pandemic scenario that a journalist discovered in them in April 2020.<sup>60</sup>
- We tell Congress and the President that the risk data available to FEMA at the end of 2019 gave no indication that pandemic risk might be significantly greater than anything else FEMA has ever dealt with.<sup>61</sup> That disconnect wasn't FEMA's fault, but the fault of the state and local government partners who gave FEMA bad information about national risk because they were ignorant.<sup>62, 63</sup>

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<sup>52</sup> FEMA, April 2020 email to E&E News. Frank, Thomas (2020, April 13). Warning on killer virus was preliminary – FEMA. *E&E News*: at <https://www.eenews.net/climatewire/stories/1062857757> (paywalled original; pdf print at <https://bd02.github.io/external/Reorganized/Sent%20to%20committees%20October%202020/Warning%20about%20killer%20virus%20was%20preliminary%20-%20FEMA%20%28referenced%20article,%20EE%20News%2020200413%29.pdf>).

<sup>53</sup> U.S. Department of Homeland Security (2020, December 22). National preparedness report. Page 2, callout block. At [https://www.fema.gov/sites/default/files/documents/fema\\_2020-national-preparedness-report.pdf](https://www.fema.gov/sites/default/files/documents/fema_2020-national-preparedness-report.pdf).

<sup>54</sup> DHS SNRA 2011 (FOIA requested items 2b, 4), FEMA SNRA 2015 (1, 2a, 3): FEMA (2018, December 10). Final response, FEMA FOIA 2016-FEFO-00165 and appeals. At <https://bd02.github.io/external/Reorganized/FOIAs%20for%20SNRA%20documentation/FOIA%20correspondence%202017-FEFO-00165/SNRA%20FOIA%20correspondence%202016-18.zip>. Note: the SNRA 2011 requested document #5 and the SNRA 2015 requested documents #6-8 were released in full (<https://bd02.github.io/external/Released%20documentation/Originals%20OCRed/Split%20by%20redaction%20status/Released%20in%20full.zip>), and the SNRA 2011 seven-page public summary (<https://www.dhs.gov/xlibrary/assets/rma-strategic-national-risk-assessment-ppd8.pdf>) has always been public (on DHS's website: FEMA removed it from its own some time in fall 2020 [[https://web.archive.org/web/2020\\*/https://www.fema.gov/media-library-data/20130726-1854-25045-5035/rma\\_strategic\\_national\\_risk\\_assessment\\_ppd8\\_1\\_.pdf](https://web.archive.org/web/2020*/https://www.fema.gov/media-library-data/20130726-1854-25045-5035/rma_strategic_national_risk_assessment_ppd8_1_.pdf)]).

<sup>55</sup> DHS HSNRC 2013 (DHS HQ): DHS (2019, June 17), Denial in full, FOIA request 2017-HQFO-00005, portions withheld by b(5) [the b(1) withholdings are proper for certain segregable parts, but the b(5) withholdings are not (DHS cites these finalized studies as non-political authorities for political decisions, <https://docs.house.gov/meetings/HM/HM09/20150708/103703/HHRG-114-HM09-Wstate-SmithT-20150708.pdf>)]. DHS FOIA annual report raw data, PRIV FY 2019, tab raw data requests, row 43766. At <https://www.dhs.gov/publication/annual-foia-report-raw-data>, [https://www.dhs.gov/sites/default/files/publications/fy19\\_raw\\_data\\_priv.xlsx](https://www.dhs.gov/sites/default/files/publications/fy19_raw_data_priv.xlsx). The 2018 HSNRC methods documentation is public, [https://www.rand.org/pubs/research\\_reports/RR2140.html](https://www.rand.org/pubs/research_reports/RR2140.html), but internally and externally the risk content (which is displayed in part in figure 1) is in the same unclear status as the 2018 QHSR.

<sup>56</sup> SNRA 2011, 2015: NPD (4/30/2019) 28-1, current status in docket at <https://www.courtlistener.com/docket/6284501/public-employees-for-environmental-responsibility-v-united-states/>.

<sup>57</sup> SNRA: FEMA internal orders 2/21/2017, 5/11/2021.

<sup>58</sup> DHS/FEMA National Preparedness Directorate (NPD) (2019, April 30). Paragraph 8. Declaration 28-1, *Public Employees for Environmental Responsibility (PEER) v. U.S. Department of Homeland Security* 1:2018-cv-00158, D.D.C., at <https://www.courtlistener.com/docket/6284501/28/1/public-employees-for-environmental-responsibility-v-united-states/>.

<sup>59</sup> FEMA, April 2020 email to E&E News (note 52 above).

<sup>60</sup> Frank, Thomas (2020, April 9). Disaster agency foresaw killer virus months before COVID-19. *E&E News*: at <https://www.eenews.net/climatewire/stories/1062824495>.

<sup>61</sup> DHS 2020 national preparedness report pp. 1-3.

<sup>62</sup> DHS 2020 national preparedness report p. 2, callout block.

<sup>63</sup> Of the real national risk picture, which we censored. Notes 54, 56, 57 above (limited to DHS/FEMA actions).

But we continue making the same requirements on those partners to plan to the wrong risks and build the wrong capabilities<sup>64</sup> which inverted the Nation's preparedness in the first place – and tell them that the risk-based evidential authority for those requirements is the 2015 SNRA.<sup>65</sup> Which they can't see.<sup>66</sup>

I signed off on the planning assumptions that those requirements are based on in 2015 – not the assumptions themselves (called the Core Capabilities<sup>67</sup>), but FEMA's claim that they were supported by the national risk picture that my team found.<sup>68</sup> But FEMA never submitted that picture – or that claimed connection – to the outside critical and stakeholder scrutiny that they needed;<sup>69</sup> that Government information quality standards require;<sup>70</sup> and that FEMA agreed to as the condition for our contributors' help, and our endorsement of that claim.<sup>71</sup>

Those planning assumptions turned out to be wrong. That is why the National Preparedness System failed in 2017 and 2020.

But we are still using them.<sup>72</sup> We are still keeping the real risk data that we say that those planning assumptions came from locked up.<sup>73</sup> The risk assessment that FEMA's plans are based on is banned inside FEMA.<sup>74</sup> And we are still avoiding the scrutiny and accountability needed for correction – and *prioritizing* that evasion over mission success.<sup>75</sup>

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<sup>64</sup> U.S. Department of Homeland Security (2021, February 25). Risk-based core capabilities, pp. 9, 24, 33-34, A-1-2, 13-14, 17-18, 20-22, 26-29, 31, 47, B-1-3, 11-12, C-3, 5, D-13, E-8-9, F-12, G-16, H-1-2, 9, 12-13, 24-28. Preparedness grants manual. At [https://www.fema.gov/sites/default/files/documents/FEMA\\_2021-Preparedness-Grants-Manual\\_02-19-2021.pdf](https://www.fema.gov/sites/default/files/documents/FEMA_2021-Preparedness-Grants-Manual_02-19-2021.pdf). I want to stress that I am not asserting a policy judgement, or a difference of professional opinion, which would be inappropriate. I'm asserting fraud.

<sup>65</sup> U.S. Department of Homeland Security (2015, September 30). Risk and the Core Capabilities. National preparedness goal, 2nd edition, pp. 4-5. At [https://www.fema.gov/sites/default/files/2020-06/national\\_preparedness\\_goal\\_2nd\\_edition.pdf](https://www.fema.gov/sites/default/files/2020-06/national_preparedness_goal_2nd_edition.pdf).

<sup>66</sup> DHS Homeland Security Advisory Council (2016). Grant Review Task Force: final report spring 2016, p. 21. At [https://www.dhs.gov/sites/default/files/publications/HSAC%20-%20Grant%20Review%20Task%20Force%20-%20Final%20Report%20-%20FINAL%20\(accessible\).pdf](https://www.dhs.gov/sites/default/files/publications/HSAC%20-%20Grant%20Review%20Task%20Force%20-%20Final%20Report%20-%20FINAL%20(accessible).pdf).

<sup>67</sup> The 2011-present (PPD-8) Core Capabilities replaced the Target Capabilities (<https://www.fema.gov/pdf/government/training/tcl.pdf>) of DHS/FEMA's pre-2011 (HSPD-8) doctrine. The first purpose of the 2015 SNRA update was to check whether the 2011-assessed national risk picture still supported the broad, balanced all-hazards existing set of Core Capabilities, and was consistent with the small adjustments that FEMA and its stakeholders made to them in 2015. I expected that it would, and those were the findings that we reported.

<sup>68</sup> Note 65.

<sup>69</sup> March 2019 SNRA FAQ for Congress p. 4 (*Why does a highly technical product that was made by experts need outside critics?*).

<sup>70</sup> Information Quality Act. Section 515, Consolidated appropriations act for FY 2001 (Public Law 106-554): at <https://www.govinfo.gov/content/pkg/PLAW-106publ554/pdf/PLAW-106publ554.pdf#page=156>.

- OMB (2002, February 22). Guidelines for ensuring the quality, objectivity, utility, and integrity of information disseminated by Federal agencies. At <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/OMB/fedreg/reproducible2.pdf>.
- Graham, John D. (2002, March 21). OMB's role in overseeing information quality. Remarks, National Academy of Sciences. OMB: at [https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/OMB/info-reg/info-quality\\_march21.pdf](https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/OMB/info-reg/info-quality_march21.pdf).
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- President (2021, January 27). Restoring trust in Government through scientific integrity and evidence-based policymaking. At <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/>.

<sup>71</sup> SNRA instructions to contributors, at <https://www.courtlistener.com/docket/6284501/24/3/public-employees-for-environmental-responsibility-v-united-states/> 000001-43, esp. 000011-13 (pp. 2-4 of the SNRA 2015 Risk Summary Sheet and Template).

<sup>72</sup> Note 64.

<sup>73</sup> FEMA internal orders 2/21/2017, 5/11/2021.

<sup>74</sup> FEMA internal orders 2/21/2017, 3/26/2019, 5/11/2021.

<sup>75</sup> The funding stream which Congress appropriated for a) conducting national risk assessments and b) building state and local risk management capabilities is the funding stream that FEMA is using to c) suppress its national risk assessment and d) keep its best risk data from state and local emergency managers. October 16 letter p. 6; Disclosure Branch (3/1/19) declaration 22-1 ¶ 6, NPD (3/1/19) 22-2 ¶ 1, NPD (4/30/19) 28-1 ¶ 1.

## Responsibility

I am using the word “we” because I helped bury this too. I probably have more responsibility for that than anyone else above the ground today.

I’m not writing to blame anyone else. I don’t even know who is making the decisions to keep this science suppressed now, or who has been making the decisions for its suppression at any time since 2015, other than that it is not being driven by my current organization today.<sup>76</sup> I’m just trying to end it.

## Status update (since 16 October 2020 committee letter)

October 27, 2020: After I had tried to get what FEMA was saying in court corrected, and failed to do so, I told the Justice Department attorney and GAO together that what we were telling each of them factually contradicted what we were telling the other,<sup>77, 78</sup> and sent them all this information (the information in the other attachments). Nothing happened.

I spent October to June writing this letter.

Late December 2020: I told the committee staff that I would contact the third party who was unaware of the contradictions between what we were telling him and others – the journalist whose article I’d cited in my October 16 follow-up letter<sup>79</sup> – before following up with them again.

- That is this letter. I’m a very slow writer. The intervening events listed on this page (starting with the Government’s decision to keep in place the issues that the 10/27 email reported) complicated the existing issues with new ones faster than I could write.

December 22, 2020: FEMA reported that the risk data available to the agency on December 31, 2019 had given no indication that pandemics were any more of a risk than other threats and hazards that emergency managers had to deal with.<sup>80</sup>

April 28, 2021: The 2020-updated versions of this substitute ‘risk data’ were released internally. They returned the same result: On December 31, 2020, half the jurisdictions using this FEMA-mandated tool to assess their risks reported that their risk from pandemics was zero.<sup>81</sup> FEMA went ahead and used those numbers anyway.

May 11, 2021: Leadership renewed the prohibitions on sharing the [real] risk data which contradicted these results inside or outside FEMA.<sup>82</sup>

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<sup>76</sup> The reason I’m noting this is because it may not look that way from the outside. My organization’s name is on many of the products cited above, but they aren’t in control. FOIA request letter <https://bd02.github.io/external/Reorganized/Other/FOIA%202020-FEFO-00401/FOIA%202020-FEFO-00401%20request%20letter%2020200218%20redacted.pdf>, p. 5 last sentence.

<sup>77</sup> DHS/FEMA National Preparedness Directorate (NPD) (2019, April 30). Paragraph 8. Declaration 28-1, *Public Employees for Environmental Responsibility (PEER) v. U.S. Department of Homeland Security* 1:2018-cv-00158, D.D.C., at <https://www.courtlistener.com/docket/6284501/28/1/public-employees-for-environmental-responsibility-v-united-states/>.

<sup>78</sup> U.S. Government Accountability Office (GAO) (2020, May 4). National preparedness: additional actions needed to address gaps in the Nation’s emergency management capabilities, pp. 11-12, 28. GAO-20-297: at <https://www.gao.gov/assets/710/706612.pdf>.

<sup>79</sup> Note 52.

<sup>80</sup> U.S. Department of Homeland Security (2020, December 22). National preparedness report. At [https://www.fema.gov/sites/default/files/documents/fema\\_2020-national-preparedness-report.pdf](https://www.fema.gov/sites/default/files/documents/fema_2020-national-preparedness-report.pdf).

<sup>81</sup> 68/120 (57%) reported zero risk for pandemic or epidemic scenarios on 12/31/2019 and 55/117 (47%) on 12/31/2020. (My 2019 count is a little more generous than the published one.) This looks like an improvement, but it isn’t. It should be zero. If what these tools reported had any connection to risk, or even just perceived risk, the number of jurisdictions reporting on 12/31/2020 that pandemics posed no risk to their communities would be zero.

These information products (THIRAs) are actually fabulous planning tools – so long as they are closely calibrated to a shared picture of risk between users, that users can see and judge for themselves. The THIRAs were never intended to be used without at least that common national risk picture to calibrate against, feed into, identify weaknesses in, and help to correct and improve. Without that, and siloed from each other by default, the risk picture that these tools will paint, by their construction, can be only as accurate as the risk assumptions encoded by the ‘risk-based’ capabilities which determine the risk picture that comes out of them – even when that picture is clearly wrong.

<sup>82</sup> FEMA internal orders 2/21/2017, 5/11/2021. I’m using ‘leadership’ because I don’t know where these decisions are being made at present, other than that it is outside my current organization.

## Background (summary)

The Strategic National Risk Assessment (SNRA) was designed to help Federal and community decision-makers prioritize and plan for the greatest risks to the Nation, with math, science, and evidence.

### *Origin*

In 2011, FEMA asked DHS for a master risk assessment that would compare every threat and hazard in FEMA's mission space – a One Ring To Rule Them All of national risk – using math, science, and evidence that FEMA could defend. DHS's analysts gave FEMA what it asked for. DHS has been trying to put that genie back into its bottle since.<sup>83</sup>

The former DHS Office of Risk Management & Analysis (RMA) created the SNRA for FEMA in 2011. RMA accomplished this by adding hurricanes, pandemics, and other natural/accidental/malevolent hazards to the existing comparative framework of the classified DHS terrorism risk assessments<sup>84</sup> which determine[d] what goes into the Strategic National Stockpile. DHS/FEMA updated the SNRA itself in 2015. FEMA's update focused on building out a fully unclassified version that its state and local stakeholders could see and use.

### *The U.S. national risk assessment*

The SNRA is a national risk assessment. It makes comparative judgements between risks – chemical accidents vs. terrorist bombings, nuclear meltdowns vs. pandemics, geo-magnetic storms vs. a second 9/11 – touching the equities, responsibilities, and budgets of every Department in the U.S. Government. It expresses those risks in common mathematical terms, allowing direct comparison and resource allocation decisions between functions and agencies in a way that the Government has never been able to do before. What the national Budget does for revenue and spending, the SNRA does for national risk.

At present, the U.S. Government manages national risk in the same way that it managed the national accounts a century ago, before the creation of the unified Budget. The Government makes risk tradeoff decisions in program siloes, or decision-by-decision, judging costs and benefits in isolation from other risk management decisions, like the decision that the CEA's Warp Speed analysis supported. The SNRA breaks down those walls for risk, like the Budget does for money.

A national risk assessment is an entirely new thing in American government. I believe that many of the SNRA's problems may stem from this: without a pre-existing frame of reference, decision-makers who encounter it don't have the standard of comparison needed to understand just how much this thing will empower citizens, and empower accountable government.

### *FEMA's master risk assessment*

The SNRA's quantitative method makes FEMA's planning assumptions explicit in a way that makes it possible for any expert, critic, or citizen to examine and question them, to an extent that no other kind of analysis that DHS, FEMA, or any other U.S. Government entity practices can do.

If they could see it.

We see reproducibility as an essential feature of competent and accountable government. Show me what numbers, assumptions, and equations you used: and then show me how they add up to what you say they add up to.

- John Graham, OMB Office of Information & Regulatory Affairs,  
March 2002

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<sup>83</sup> From 2012-15 DHS HQ was making the decisions and FEMA was the impacted party. Since 2015 DHS/FEMA has been making the decisions itself for the SNRA. DHS HQ returned to this analytic line of work for its own planning needs in 2016, but did not interfere with FEMA. I don't know what (if any) role DHS HQ had in FEMA's decisions after 2016.

<sup>84</sup> The DHS Integrated CBRN Terrorism Risk Assessment (ITRA) and its biological (BTRA), chemical (CTRA), and radiological-nuclear (RNTRA) components (notes 42 and 43 above).

## Accountability

### *What they will tell you*

Much of this discussion is about accountability, or avoiding accountability, in one way or another.

It is important to understand how this avoidance actually works in practice – the mechanics of it. The reason why it is important is because these are the things that DHS and FEMA will tell you, to deflect your asking further.

### DHS (general)

These relate to a frequent point of confusion: DHS's practice of claiming data and analysis as evidence for final decisions, then turning around and shielding that evidence from scrutiny by claiming it to only be a 'draft'. This is how we have our cake, and eat it too.

We avoid political accountability by claiming that our decisions are based on objective science and evidence.<sup>85, 86, 87, 88, 89, 90, 91, 92, 93</sup> When we are called on those claims,<sup>94, 95, 96, 97</sup> we turn around and avoid scientific accountability by calling them discretionary policy decisions that critics have no right to question.<sup>98, 99, 100, 101</sup> When these contradictions become unsustainable,<sup>102</sup> we make stuff up.<sup>103</sup> When our choices catch up to us,<sup>104, 105, 106, 107</sup> we double down,<sup>108</sup> and keep going.<sup>109, 110</sup>

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<sup>85</sup> This section includes the larger DHS context of these issues including the DHS strategic planning context where the SNRA first got trapped, as well as the post-2015 DHS/FEMA-centered issues that the rest of this document mostly focuses on.

#### *We avoid political accountability.*

<sup>86</sup> U.S. Department of Homeland Security (2011, September). National Preparedness Goal, 1st edition (2011), pp. 3-4. At <https://www.fema.gov/pdf/prepared/npg.pdf>. (SNRA)

<sup>87</sup> U.S. Department of Homeland Security (2011, December 9). The Strategic National Risk Assessment in support of PPD 8: A comprehensive risk-based approach toward a secure and resilient Nation (public summary). At <https://www.dhs.gov/xlibrary/assets/rma-strategic-national-risk-assessment-ppd8.pdf>. (SNRA)

<sup>88</sup> U.S. Department of Homeland Security (2012, February 3). Testimony, DHS Office of Policy, transcript p. 65. House Committee on Homeland Security Subcommittee on Oversight, Investigations, and Management. At <https://www.hsd.org/?view&did=731178>. (SNRA, HSNRC, QHSR analysis)

<sup>89</sup> U.S. Department of Homeland Security (2013, September 9). Using enterprise-wide risk modeling, analysis, and assessment to inform homeland security policy and strategy. Alan Cohn, DHS Office of Policy. Presentation, Association for Federal Enterprise Risk Management (AFERM) 6th Annual Federal Enterprise Risk Management Summit: at [https://www.aferm.org/wp-content/uploads/2016/10/ERM\\_2013\\_Cohn\\_Using\\_Risk\\_Modeling.pdf](https://www.aferm.org/wp-content/uploads/2016/10/ERM_2013_Cohn_Using_Risk_Modeling.pdf). (SNRA, HSNRC, QHSR analysis)

<sup>90</sup> U.S. Department of Homeland Security (2014, June). Quadrennial Homeland Security Review 2014 pp. 6-7, 15-17, 34-35, 41-43, 47, 56, 64, 67, 71-72, 74, 81, 94-96 ("risk" cited as an evidential basis for policy decisions as opposed to a descriptive term). DHS Office of Policy, Strategic Plans. At <https://www.dhs.gov/sites/default/files/publications/2014-qhsr-final-508.pdf>. (HSNRC and QHSR analysis)

<sup>91</sup> U.S. Department of Homeland Security (2015, July 8). Testimony, DHS Office of Policy. House Committee on Homeland Security Subcommittee on Oversight and Management Efficiency: at <http://docs.house.gov/meetings/HM/HM09/20150708/103703/HHRG-114-HM09-Wstate-SmithT-20150708.pdf>. (HSNRC and QHSR analysis)

<sup>92</sup> U.S. Department of Homeland Security (2015, September 30). National preparedness goal, 2nd edition, SNRA pp. 4-5, threats & hazards identification p. 12. At [https://www.fema.gov/sites/default/files/2020-06/national\\_preparedness\\_goal\\_2nd\\_edition.pdf](https://www.fema.gov/sites/default/files/2020-06/national_preparedness_goal_2nd_edition.pdf).

<sup>93</sup> DHS/FEMA National Preparedness Directorate (NPD) (2019, April 30). Declaration 28-1, *Public Employees for Environmental Responsibility (PEER) v. U.S. Department of Homeland Security* 1:2018-cv-00158, D.D.C., at <https://www.courtlistener.com/docket/6284501/28/1/public-employees-for-environmental-responsibility-v-united-states/>. Paragraph 6 ("data-driven policy decisions") (THIRAs are state/local/tribal/territorial-level planning and reporting tools, of which the National THIRA is the national-level version).

<sup>94</sup> FEMA FOIA request 2016-FEFO-00165, <https://bd02.github.io/external/Reorganized/FOIAs%20for%20SNRA%20documentation/>. (SNRA)

<sup>95</sup> Public Employees for Environmental Responsibility (PEER) (2018, January 25). Flying blind – Our national risk assessment is still under wraps. Press release: at <https://www.peer.org/flying-blind-our-national-risk-assessment-still-under-wraps/>. PEER (2018, January 25). Complaint, document 1, *PEER v. DHS* 1:2018-cv-00158, D.D.C., at <https://www.courtlistener.com/docket/6284501/1/public-employees-for-environmental-responsibility-v-united-states/>. (SNRA)

<sup>96</sup> DHS FOIA request 2017-HQFO-00005 for Homeland Security National Risk Characterization (HSNRC), Current Strategic Environment 2012, Future Strategic Environment 2013 reports (C. Beckner 10/4/2016). DHS Privacy Office FOIA log October 2016, at <https://www.dhs.gov/sites/default/files/publications/dhs-privacy-office-foia-log-october-2016.pdf>. (HSNRC and QHSR analysis)

<sup>97</sup> FEMA FOIA request 2020-FEFO-00401, <https://bd02.github.io/external/Reorganized/Other/FOIA%202020-FEFO-00401/FOIA%202020-FEFO-00401%20request%20letter%2020200218%20redacted.pdf>. (National THIRA)



## DHS/FEMA (specific)

*‘We’re using something else now’*

Ask to see it.

There are no security issues. I made a FOIA request for any national risk assessment that FEMA might be using or has been using in the SNRA’s place from 2015 to the present. The only FOIA exemption which FEMA applied to the redacted documents it produced was that they were still pre-decisional [b(5)], as of April 9, 2021.<sup>111</sup>

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*We avoid scientific accountability.*

<sup>98</sup> FEMA (2018, December 10). Final response, FEMA FOIA 2016-FEFO-00165 and appeals. At <https://bd02.github.io/external/Reorganized/FOIAs%20for%20SNRA%20documentation/FOIA%20correspondence%202017-FEFO-00165/SNRA%20FOIA%20correspondence%202016-18.zip>. (SNRA, my FOIA)

<sup>99</sup> DHS/FEMA National Preparedness Directorate (NPD) (2019, March 1). Declaration 22-2 paragraphs 4, 6, 8, 10, 12, 14, 16, 18, *PEER v. DHS*, at <https://www.courtlistener.com/docket/6284501/22/2/public-employees-for-environmental-responsibility-v-united-states/>. FEMA Disclosure Branch (3/1/2019) 22-1 paragraphs 7, 10-13. (SNRA, *PEER*’s FOIA)

<sup>100</sup> DHS (2019, June 17). Denial in full, FOIA request 2017-HQFO-00005, b(1) [this would be segregable portions of the HSNRC documentation], b(5). DHS FOIA annual report raw data, PRIV FY 2019, tab raw data requests, row 43766. At <https://www.dhs.gov/publication/annual-foia-report-raw-data>, [https://www.dhs.gov/sites/default/files/publications/fy19\\_raw\\_data\\_priv.xlsx](https://www.dhs.gov/sites/default/files/publications/fy19_raw_data_priv.xlsx). (HSNRC and QHSR analysis)

<sup>101</sup> FEMA (2021, February 9, April 9). Interim and final responses, FEMA FOIA 2020-FEFO-00401. At <https://bd02.github.io/external/Reorganized/Other/FOIA%202020-FEFO-00401/2020-FEFO-00401%20Interim%20Final%20Response%2020210209.pdf>, <https://bd02.github.io/external/Reorganized/Other/FOIA%202020-FEFO-00401/2020-FEFO-00401%20Final%20Response%2020210409.pdf>. (National THIRA)

*When those contradictions become unsustainable,*

<sup>102</sup> *PEER* (2019, March 29). Memorandum 24-1, *PEER v. DHS*, at <https://www.courtlistener.com/docket/6284501/24/1/public-employees-for-environmental-responsibility-v-united-states/>. (SNRA)

*We make stuff up.*

<sup>103</sup> NPD (4/30/2019) 28-1 paragraph 8. (SNRA, National THIRA)

*When our choices catch up to us,*

<sup>104</sup> Federal Emergency Management Agency (2018, July 12). 2017 hurricane season FEMA after-action report. Page 12. At [https://www.fema.gov/sites/default/files/2020-08/fema\\_hurricane-season-after-action-report\\_2017.pdf](https://www.fema.gov/sites/default/files/2020-08/fema_hurricane-season-after-action-report_2017.pdf). (THIRA)

<sup>105</sup> FEMA 6/19/2020 testimony to Senate Homeland Security Committee, <https://www.c-span.org/video/?472884-1/senate-hearing-procurement-distribution-strategies-response-coronavirus-pandemic> at 44:55-45:18.

<sup>106</sup> Frank, Thomas (2020, April 9). Disaster agency foresaw killer virus months before COVID-19. *E&E News*: at <https://www.eenews.net/climatewire/stories/1062824495>. (National THIRA)

<sup>107</sup> DHS 2020 national preparedness report pp. 1-2. (THIRA)

*We double down,*

<sup>108</sup> Frank, Thomas (2020, April 13). Warning on killer virus was preliminary – FEMA. *E&E News*: at <https://www.eenews.net/climatewire/stories/1062857757> (paywalled original; pdf print at <https://bd02.github.io/external/Reorganized/Sent%20to%20committees%20October%202020/Warning%20about%20killer%20virus%20was%20preliminary%20%20FEMA%20%28referenced%20article.%20EE%20News%2020200413%29.pdf>). (National THIRA)

*And keep going.*

<sup>109</sup> U.S. Department of Homeland Security (2021, February 25). Risk-based core capabilities, pp. 9, 24, 33-34, A-1-2, 13-14, 17-18, 20-22, 26-29, 31, 47, B-1-3, 11-12, C-3, 5, D-13, E-8-9, F-12, G-16, H-1-2, 9, 12-13, 24-28. Preparedness grants manual. At [https://www.fema.gov/sites/default/files/documents/FEMA\\_2021-Preparedness-Grants-Manual\\_02-19-2021.pdf](https://www.fema.gov/sites/default/files/documents/FEMA_2021-Preparedness-Grants-Manual_02-19-2021.pdf).

<sup>110</sup> DHS 2020 national preparedness report p. 2. FEMA continues to use this information in its ‘data-driven policy decisions’ (note 93), in place of the SNRA or equivalent (real) risk data.

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<sup>111</sup> 2/9/21 production pp. 73-265 (non-redacted pp. 1-72 and 266-302 were already public, but responsive [they answered part of the question that I asked]). FEMA’s responses to requests #1 (2/9 production pp. 303-304), #6 (2/9 interim response letter), and #9 (4/9/21 production) were fully responsive. Request, responses, and records are at <https://bd02.github.io/external/Reorganized/Other/FOIA%202020-FEFO-00401/>.



## Information Quality Act

None of that should have happened.

Everybody makes mistakes. But the mistakes in themselves weren't the problem.

The problem is that DHS excluded the scrutiny needed to *correct* those mistakes. That is the critical outside scrutiny that any information needs to be safe to use.

The 2015 SNRA explicitly adopted the peer and public review requirements of OMB's information quality standards for U.S. Government risk assessments.<sup>112, 113</sup> These standards connect the sometimes philosophical-sounding practices which science has developed over centuries, to hold itself accountable – to the very real people and very consequential things that DHS exists to protect.<sup>114</sup>

When information is used to direct and coordinate really important things, really good things can happen if that information is good. But really bad things can happen if that information is bad.

These information quality standards are meant to ensure that the information that the Government uses to *make* important decisions, and to explain and *justify* important decisions so our employers can hold us accountable for those decisions, is good information rather than bad information.

A lot of really bad things happened because we didn't do that.

But that isn't in the past. It's still going on. We're still doing it.

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<sup>112</sup> SNRA instructions to contributors, at <https://www.courtlistener.com/docket/6284501/24/3/public-employees-for-environmental-responsibility-v-united-states/> 000001-43, esp. 000011-13 (pp. 2-4 of the SNRA 2015 Risk Summary Sheet and Template).

<sup>113</sup> OMB (2002, February 22). Guidelines for ensuring the quality, objectivity, utility, and integrity of information disseminated by Federal agencies. At <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/OMB/fedreg/reproducible2.pdf>.

- OMB (2004, December 16). Final information quality bulletin for peer review. At [https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/OMB/fedreg/2005/011405\\_peer.pdf](https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/OMB/fedreg/2005/011405_peer.pdf).
- OMB, OSTP (2007, September 19). Updated principles for risk analysis. At <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2007/m07-24.pdf>.

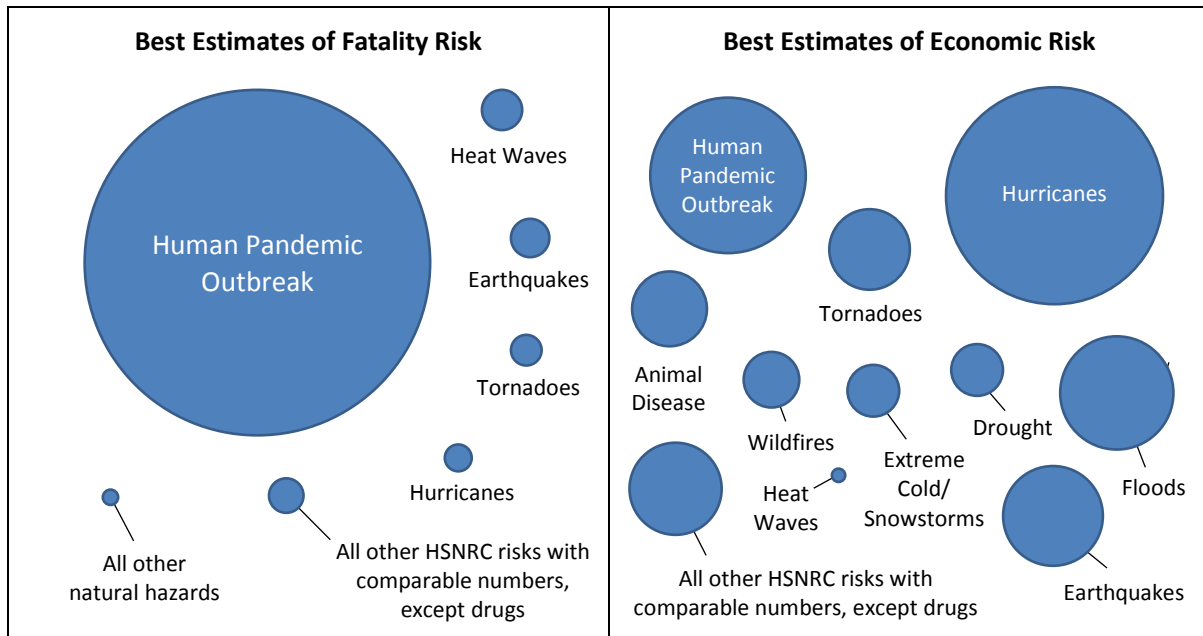
These standards implement OMB's interpretation of the Information Quality Act (section 515, <https://www.govinfo.gov/content/pkg/PLAW-106publ554/pdf/PLAW-106publ554.pdf#page=156>).

<sup>114</sup> SNRA FOIA appeal (2018).pdf blue-banded pdf pages 1-4 (unnumbered two pages 9/24/2018 appeal + pp. 1-2 of 11/1/2017 appeal).

## Additional charts

FIGURE 2: HSNRC 2013 WITH ILLICIT DRUGS (INCLUDED TO AVOID BEING MISLEADING).

### Homeland Security National Risk Characterization 2013 with Drugs



Fatality risk

Economic risk

