



# States of Denial: States with the Most Federal Disaster Aid Sent Climate-Science Deniers to Congress

Daniel J. Weiss, Jackie Weidman, and Stephanie Pinkalla     September 11, 2013

The United States suffered from numerous extreme weather events in 2011 and 2012. In fact, there were 25 severe storms, floods, droughts, heat waves, and wildfires that each caused more than \$1 billion in economic damages, with a total price tag of \$188 billion.<sup>1</sup> To help communities recover from these violent weather events, the federal government spent nearly \$62 billion for disaster relief in fiscal years 2011 and 2012.<sup>2</sup> These federal funds only cover a portion of recovery costs; private insurance and individuals harmed by the events also spent billions of dollars.

There is recent evidence that climate change played a role in the extreme weather events of 2012. The recently released analysis from the American Meteorological Society determined that:

*Approximately half the analyses found some evidence that anthropogenically caused climate change was a contributing factor to the extreme event examined, though the effects of natural fluctuations of weather and climate on the evolution of many of the extreme events played key roles as well.*<sup>3</sup>

Interestingly, many of the states that received the most federal recovery aid to cope with climate-linked extreme weather have federal legislators who are climate-science deniers. The 10 states that received the most federal recovery aid in FY 2011 and 2012 elected 47 climate-science deniers to the Senate and the House.<sup>4</sup> Nearly two-thirds of the senators from these top 10 recipient states voted *against* granting federal emergency aid to New Jersey and New York after Superstorm Sandy.<sup>5</sup>

Information on federal disaster-relief spending is essential to help Congress and the Obama administration budget enough funds to assist communities with damages from future extreme weather events. This issue brief provides the first-known comprehensive estimate of federal disaster-recovery spending on a state-by-state basis. Federal and individual state governments need these data to better budget funds to help communities recover from

future storms, floods, droughts, heat waves, and wildfires, as scientists warn that climate change will increase the incidences of extreme weather.<sup>6</sup> This information also shows federal taxpayers how money for disaster relief has been spent during the past two years.

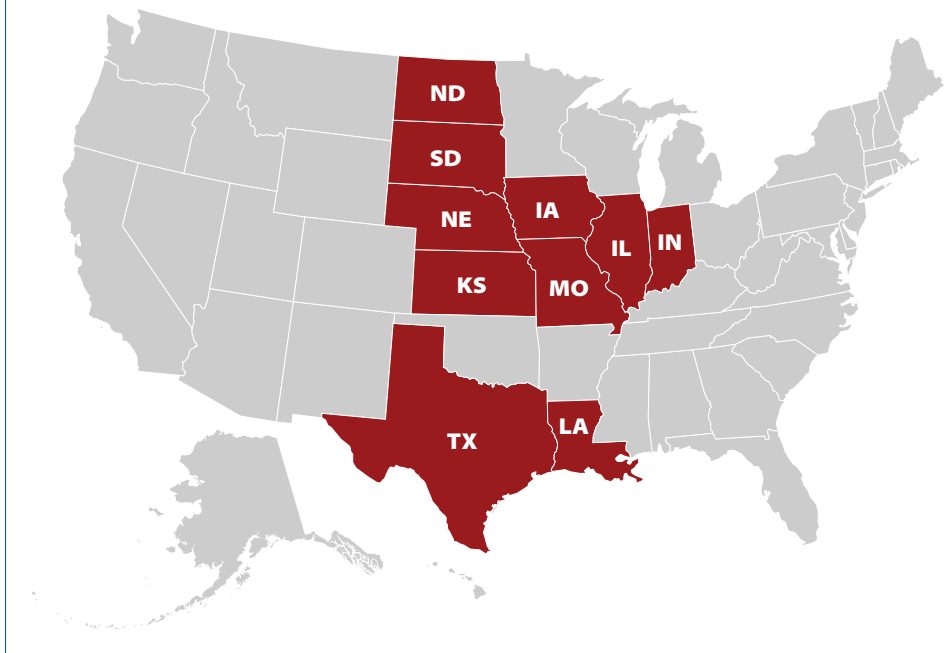
The estimates in this issue brief are derived from state-specific federal fiscal outlay data for disaster-recovery programs in FY 2011 and 2012. The brief includes state spending data from six federal departments that provide federal funds for these purposes.

At least one additional program is not included in this analysis because the relevant department was unable or unwilling to provide state-specific outlay data. With the increasing cost and frequency of extreme severe weather events, the federal government *must* make state-by-state data on disaster-recovery spending publicly and readily available.

As the following map shows, the 10 states that received the most federal disaster relief are primarily farm states in the plains and the Midwest.<sup>7</sup> These states suffered billions of dollars of crop losses due to prolonged drought in 2011 and 2012.<sup>8</sup> This necessitated an estimated \$28 billion in crop insurance expenditures in FY 2011 and 2012, which comprised a majority of the spending for disaster programs where we could identify state-by-state expenditures. (See Table 1 below, and see the attached Excel spreadsheet for the spending data by program and state.)

FIGURE 1

Top 10 recipients of federal disaster aid, fiscal years 2011 and 2012



**TABLE 1**  
**Federal disaster-relief spending by program with individual state data,**  
**FY 2011-12**

Federal disaster-relief spending	Total spending, FY 2011–2012 (in millions of dollars)
Department of Agriculture Crop Insurance	\$28,239
Federal Emergency Management Agency Disaster Relief Fund	\$8,824
Army Corps of Engineers disaster-recovery programs	\$3,018
Department of Agriculture Farm Service disaster-recovery programs	\$2,839
Department of Agriculture Fire Suppression	\$2,216
Department of Transportation Federal Highway Emergency Relief	\$2,140
Small Business Administration Disaster Loans	\$1,417
Department of Commerce Economic Adjustment Assistance	\$206
Federal Emergency Management Agency Fire Management Assistance	\$80
<b>Total</b>	<b>\$48,979</b>

Source: Data compiled by CAP from federal agencies. (see Appendix)

**TABLE 2**  
**Federal disaster-recovery spending by state ranked by amount**

State	Federal spending (in millions of dollars)	Spending Rank	President and secretary of agricul- ture disaster desig- nations 2011-2012	Number of climate science deniers in con- gressional delegation	Senators vote on Sandy aid H.R. 152
TX	\$5,252	1	56	18	Cornyn NO; Cruz NO
IL	\$4,167	2	3	4	Durbin Yes; Kirk NO
ND	\$3,428	3	6	2	Heitkamp Yes; Hoevan Yes
IA	\$2,758	4	3	2	Grassley NO; Harkin Yes
KS	\$2,734	5	6	3	Moran NO; Roberts NO
LA	\$2,570	6	5	5	Landrieu Yes; Vitter Yes
MO	\$2,466	7	4	4	Blunt NO; McCaskill Yes
NE	\$2,103	8	6	4	Fischer NO; Johanns NO
IN	\$1,919	9	5	4	Coats NO; Donnelly Yes
SD	\$1,889	10	4	1	T Johnson Yes; Thune NO
NY	\$1,748	11	4	1	Gillibrand Yes; Schumer Yes
CA	\$1,222	12	9	8	Boxer Yes; Feinstein Yes
AL	\$1,048	13	5	5	Sessions NO; Shelby Yes
MN	\$970	14	5	2	Franken Yes; Klobuchar Yes
OK	\$927	15	38	5	Coburn NO; Inhofe NO
NC	\$865	16	5	5	Burr NO; Hagan Yes
KY	\$847	17	4	4	McConnell NO; Paul NO
OH	\$822	18	4	7	Brown Yes; Portman NO
NJ	\$792	19	17	3	Lautenberg Yes; Menendez Yes
PA	\$764	20	4	8	Casey Yes; Toomey NO
MS	\$739	21	5	2	Cochran Yes; Wicker Yes

State	Federal spending (in millions of dollars)	Spending Rank	President and secretary of agricul- ture disaster desig- nations 2011-2012	Number of climate science deniers in con- gressional delegation	Senators vote on Sandy aid H.R. 152
CO	\$621	22	9	4	Bennet Yes; M Udall Yes
MT	\$618	23	10	1	Baucus Yes; Tester Yes
VT	\$603	24	6	0	Leahy Yes; Sanders Yes
TN	\$591	25	7	5	Alexander Yes; Corker NO
WI	\$561	26	4	3	Baldwin Yes; R Johnson NO
AR	\$489	27	4	3	Boozman NO; Pryor Yes
GA	\$480	28	7	7	Chambliss NO; Isakson NO
AZ	\$469	29	5	2	Flake NO; McCain NO
NM	\$446	30	7	1	T Udall Yes; Heinrich Yes
ID	\$417	31	4	1	Crapo NO; Risch NO
FL	\$417	32	5	4	Nelson Yes; Rubio NO
WA	\$389	33	13	2	Cantwell Yes; Murray absent
MA	\$353	34	3	0	Kerry Yes; Warren Yes
NV	\$330	35	4	1	Heller Yes; Reid Yes
MI	\$323	36	1	7	Levin Yes; Stabenow Yes
OR	\$305	37	3	0	Wyden Yes; Merkley Yes
CT	\$284	38	5	0	Blumenthal Yes; Murphy Yes
VA	\$258	39	7	7	Kaine Yes; Warner Yes
WY	\$146	40	6	2	Barrasso NO; Enzi NO
UT	\$138	41	10	4	Hatch NO; Lee NO
MD	\$135	42	5	1	Cardin Yes; Mikulski Yes
SC	\$123	43	2	4	Graham NO; Scott NO
AK	\$97	44	5	1	Begich Yes; Murkowski Yes
NH	\$84	45	8	1	Ayotte NO; Shaheen Yes
WV	\$81	46	3	2	Manchin Yes; Rockefeller Yes
RI	\$61	47	3	0	Reed Yes; Whitehouse Yes
DC	\$46	48	4	0	No senators
HI	\$37	49	3	0	Hirono Yes; Schatz Yes
ME	\$35	50	5	0	Collins Yes; King absent
DE	\$12	51	3	0	Carper Yes; Coons Yes
<b>Totals</b>	<b>\$48,979</b>			<b>160</b>	

Source: Data compiled by CAP from federal agencies, Federal Emergency Management Agency, U.S. Department of Agriculture, ClimateProgress, and THOMAS.

## Extreme weather on the rise

Data from the past 30 years reveal an increase in both presidential disaster declarations and billion-dollar extreme weather events. (see Figure 2) In the 1980s, there was an annual average of less than two extreme weather events that caused at least \$1 billion in damages, and the average annual total damages from these events was \$20 billion (in 2012 dollars). From 2010 to 2012, however, there was an annual average of more than nine extreme

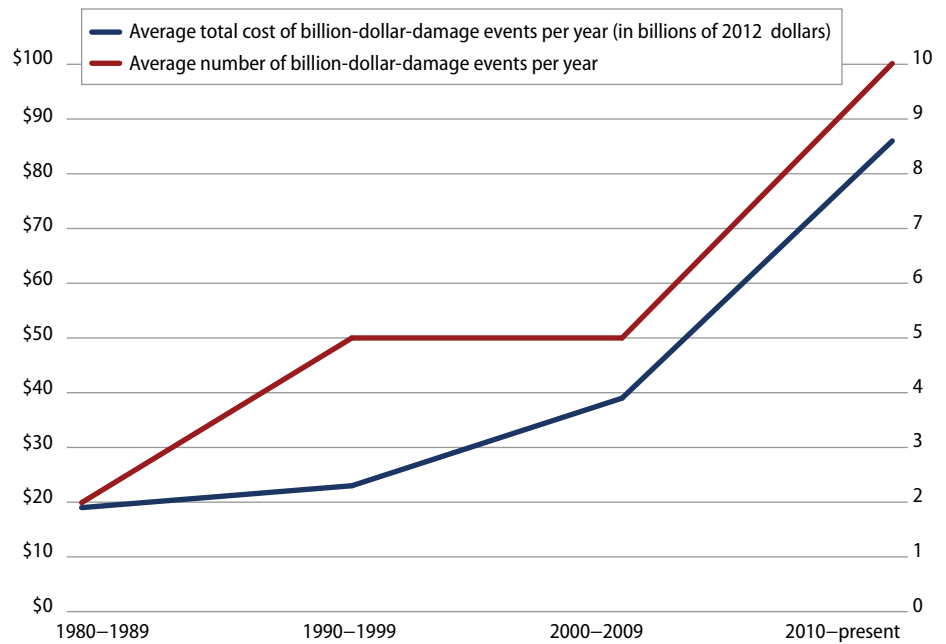
weather events with at least \$1 billion in damages, with average annual total damages of \$85 billion (in 2012 dollars).

What's worse, the draft National Climate Assessment predicts that the number of extreme weather events will continue to grow and that our communities face growing risks because they were not built for an unstable climate:

*Human-induced climate change is projected to continue and accelerate significantly if emissions of heat-trapping gases continue to increase. Heat-trapping gases already in the atmosphere have committed us to a hotter future with more climate-related impacts over the next few decades.*

*Many [climate-related changes] will be disruptive to society because our institutions and infrastructure have been designed for the relatively stable climate of the past, not the changing one of the present and future.<sup>9</sup>*

**FIGURE 2**  
Billions of dollars in damages from extreme weather events increasing in frequency, cost from 1980–2012



Source: National Oceanic and Atmospheric Administration.

## Extreme weather continues in 2013

This past June was the fifth-hottest month on record, and the first six months of 2013 were the “seventh warmest such period on record,” according to the National Oceanic and Atmospheric Administration.<sup>10</sup> As of September 4, there were 44 presidential disaster declarations in 2013 due to climate-related extreme weather events.<sup>11</sup> AON Benfield, a reinsurance company, estimates that extreme weather caused at least \$32 billion in economic damages in the United States during the first half of 2013.<sup>12</sup>

What's more, one-third of the continental United States is suffering from severe, extreme, or exceptional drought as of August 27;<sup>13</sup> the drought has shrunk available Colorado River water for cities dependent on it. As The Weather Channel reported:

*More than a dozen years of drought have begun to extract a heavy toll from water supplies in the West, where a report released last week forecast dramatic cuts next year in*

*releases between the two main reservoirs on the Colorado River, the primary source of water for tens of millions of people across seven western states.*

*The U.S. Bureau of Reclamation—the agency charged with managing water in the West—announced Friday [August 16] that it would cut the amount of water released next year by Lake Powell in Arizona by 750,000 acre-feet, enough to supply about 1.5 million homes.*

*It marks the first reduction in water flows since the mid-1960s.*

*“This is the worst 14-year drought period in the last hundred years,” said Larry Wolkoviak, director of the bureau’s Upper Colorado Region.<sup>14</sup>*

Wildfires are plaguing the West as well. Nationwide, nearly 35,000 wildfires have burned 3.9 million acres of land as of September 4, according to the National Interagency Fire Center.<sup>15</sup> This includes the ongoing Rim fire in California, which has already burned an area the size of Chicago in and around Yosemite National Park.<sup>16</sup> The U.S. Forest Service, which receives 70 percent of federal fire-protection funding, has depleted its budget for wildfire response, forcing the agency to divert hundreds of millions of dollars from other programs to fight ongoing fires.<sup>17</sup> This funding shortage was exacerbated by the automatic across-the-board sequester budget cuts that shrunk firefighting funds by 5 percent, forcing cuts of 500 firefighters and 50 engines.<sup>18</sup>

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## Recommendations

Scientists predict that extreme weather will worsen in the coming years even if the United States and other nations make significant reductions in carbon and other climate pollution. Despite this, it is still imperative that the United States significantly reduce its greenhouse gas pollution—starting with carbon pollution from power plants—and continue to build support for the international phase down of hydrofluorocarbons, or HFCs, and other climate pollutants. President Barack Obama’s recently announced Climate Action Plan includes many essential measures that would launch such pollution-reduction efforts.<sup>19</sup>

In addition to pollution reductions, the United States must also plan for the fiscal impact of more frequent or ferocious extreme weather events. The National Academy of Sciences recommended that “a national resource of disaster-related data should be established that documents injuries, loss of life, property loss, and impacts on economic activity.”<sup>20</sup> This should include an annual estimate of total federal disaster expenditures nationally and by state. The latter information is essential for budget planning since states will draw on different disaster-relief programs, depending on the climate impacts in each state. States suffering from drought, for instance, will rely on Department of

Agriculture programs to help farmers, while those harmed by hurricanes will need Federal Emergency Management Agency, or FEMA, disaster relief.

Congress must use this information to include full funding for disaster relief in future budgets and spending bills so that Americans can better understand the cost of extreme weather—and the cost of inaction on climate change. In addition, Congress must end budget sequestration to ensure that funds for disaster-relief and -recovery efforts are not reduced further due to across-the-board budget cuts.

The federal government must also invest more funds in communities' efforts to become more resilient to extreme weather. A recent CAP analysis estimated that the federal government spends \$6 on disaster recovery for every \$1 invested in reducing disaster damages, even though resilience investments reduce economic damages 4-to-1.<sup>21</sup> Fortunately, President Obama's Climate Action Plan includes many valuable proposals to help "prepare for the impacts of a changing climate that are already being felt across the country ... by building stronger and safer communities and infrastructure."<sup>22</sup> The plan will marshal existing federal resources to help communities build stronger disaster resilience.<sup>23</sup>

In addition, the government should gather and publish data on current federal community resilience investments and future needs, and also identify a dedicated source of revenue to provide federal investments in state and local extreme weather resilience efforts.<sup>24</sup> This will not only help Americans protect their lives, homes, farms, and businesses, but it should also reduce total federal disaster-relief spending, as resilience investments reduce future damages and disaster-recovery costs.

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## Conclusion

In 2011 and 2012, Americans suffered from severe droughts, heat waves, wildfires, storms, and floods, which some described as the "new normal" after decades of a relatively stable climate.<sup>25</sup> This climate instability is exacerbated by climate change, as noted by Dr. Kenneth Trenberth of the National Center for Atmospheric Research. He warned that "All weather events are affected by climate change because the environment in which they occur is warmer and moister than it used to be."<sup>26</sup> In addition to steep climate pollution reductions, we must increase our knowledge about where and how much we are spending on disaster relief to help the United States recover from climate-driven wind, rain, heat, and fire.

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## Methodology

To compile state-level outlays from agency budgets for disaster-relief and -resilience programs, we found publicly available budget information from annual budget summaries

and reports published on agency websites for FY 2011 and 2012. For the departments and agencies that did not publish this information, we contacted staff from each department and agency with our request and submitted Freedom of Information Act solicitations. Unfortunately, not all of our requests have received replies at this time.

This compilation of federal disaster spending by state comes from multiple agencies. Although we believe that it includes all the major programs that fund disaster relief and recovery annually, it may have some gaps. We welcome any state-by-state spending data for additional federal disaster-recovery programs.

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*Thanks to Matt Kasper, Special Assistant for the Energy program.*

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## Appendix

### Sources for data on disaster-recovery programs spending by state

#### **Army Corps of Engineers**

- FY 2011–2012 obligation data by state for Flood Control and Coastal Emergencies program<sup>27</sup>
- FY 2011–2012 obligation data by state for Mississippi River and Tributaries program<sup>28</sup>
- FY 2011–2012 obligation data by state for Operation and Maintenance program<sup>29</sup>

#### **Department of Agriculture**

- FY 2011–2012 obligation data by state for Farm Service Agency Disaster Set-Aside program<sup>30</sup>
- FY 2011–2012 obligation data by state for Farm Service Agency Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish program<sup>31</sup>
- FY 2011–2012 obligation data by state for Farm Service Agency Emergency Loan program<sup>32</sup>
- FY 2011–2012 obligation data by state for Farm Service Agency Livestock Forage Disaster Assistance program<sup>33</sup>
- FY 2011–2012 obligation data by state for Farm Service Agency Livestock Indemnity payments<sup>34</sup>
- FY 2011–2012 obligation data by state for Farm Service Agency Noninsured Crop Disaster Assistance program<sup>35</sup>



- FY 2011–2012 obligation data by state for Farm Service Agency Supplemental Revenue Assistance program<sup>36</sup>
- FY 2011–2012 obligation data by state for Farm Service Agency Tree Assistance program<sup>37</sup>
- FY 2011–2012 obligation data by state for Federal Crop Insurance Indemnity program<sup>38</sup>
- FY 2011–2012 obligation data by state for Forest Service Fire Suppression program<sup>39</sup>

#### **Department of Commerce**

- FY 2011–2012 obligation data by state for Economic Development Administration Economic Adjustment Assistance program<sup>40</sup>

#### **Federal Emergency Management Agency**

- FY 2011–2012 obligation data by state for Disaster Relief Obligation program<sup>41</sup>
- FY 2011–2012 obligation data by state for Fire Management Assistance Grants program<sup>42</sup>

#### **Small Business Administration**

- FY 2011–2012 obligation data by state for Disaster Assistance Loans program<sup>43</sup>

#### **Department of Transportation**

- FY 2011–2012 obligation data for the Federal Highway Administration Federal-Aid Highway Emergency Relief program<sup>44</sup>
- We were unable to obtain state-specific spending data for the Department of the Interior’s Wildland Fire Management program.<sup>45</sup>

## Endnotes

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- 42 Ibid.
- 43 Spending data provided by the Small Business Administration.
- 44 Spending data provided by Department of Transportation.
- 45 U.S. Department of the Interior, "Office of Wildland Fire," available at <http://www.doi.gov/pmb/owf/index.cfm> (last accessed August 2013).