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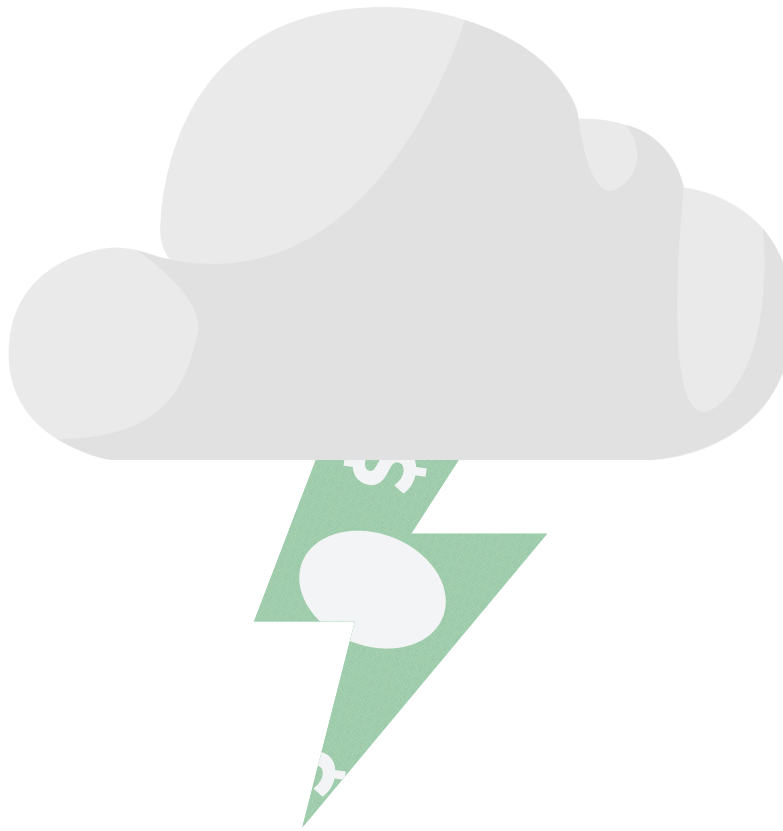
# AN IMPERFECT STORM

HOW THE OUTDATED FEDERAL RULES DISTORT THE DISASTER  
DECLARATION PROCESS AND FLEECE TAXPAYERS

A REPORT BY TOM COBURN, RANKING MEMBER







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# AN IMPERFECT STORM

*How the outdated federal rules distort the disaster declaration process and fleece taxpayers*

- **The federal government is declaring disasters that would not have been considered disasters in the 1980s and 1990s.**
- **FEMA is providing federal funds for many routine events, which is inconsistent with Congressional intent**
- **FEMA's process for recommending disaster declarations is outdated and unfairly biased to advantage less populous states**
- **FEMA's process encourages states to exaggerate the amount of damage that has occurred after an event to receive federal assistance**

Dear Taxpayer,

In every corner of the nation, citizens can recount a time when disaster struck – from hurricanes to earthquakes – and the helpless feelings that followed. Scenes of devastation from around the country in just the last few years have demonstrated the extent to which powerful natural disasters can quickly overwhelm state and local capabilities. Hurricane Sandy, which overwhelmed affected communities along the east coast in October 2012, killed over a hundred people and caused billions of dollars in damage.<sup>1</sup> In my home state of Oklahoma, tornadoes devastated the town of Moore in May 2013, killing two dozen of our citizens, injuring hundreds more, and causing over \$110 million in damage.<sup>2</sup>

For this reason, Congress has created relief and assistance programs that allow the federal government to step in and help when severe natural disasters are too much for state and local capabilities to handle.

But the federal government—through the Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA)—has increasingly paid for a “disaster”<sup>3</sup> in the aftermath of storms that would have been considered routine weather events decades ago.

A good example of this came when snow and sleet fell across eastern Oklahoma on December 5-6, 2013. In Tulsa, the storm left behind 4.9 inches of snow, according to the National Weather Service.<sup>4</sup> Eight weeks later at the request of the governor, the President declared the storm a federal disaster based on FEMA's recommendation, making federal funds available to communities affected by the five-inch snowstorm. Oklahoma officials estimated the storm caused \$6.4 million in damage.<sup>5</sup>

On January 5, 2014, Indiana received approximately a foot of snow and temperatures dropped below zero for over twenty-four hours.<sup>6</sup> FEMA denied the state's initial request for disaster assistance, but after objections from the congressional delegation and an appeal from the Governor<sup>7</sup> the winter storm was declared a disaster three-and-a-half months later. That storm is expected to cost taxpayers \$13 million.<sup>8</sup>

Federally-declared disasters have been declared so often there is a good chance you may have lived in a disaster zone at some point over the past year. At one point this year, there were 33 states with active disaster zones across the United States. Of these 33 disasters, eighteen were for winter storms, where a large portion of the estimated damages included snow removal.

Over the past year, my office reviewed FEMA's process for disaster declarations. My office reviewed the history of the federal government's approach to disaster relief; reviewed years of FEMA disaster declaration data, analyzed the findings of experts and government watchdog groups, and spoke with and interviewed senior officials responsible for managing the disaster declaration process. This report presents my office's findings.

- **Nearly half of all recently declared “disasters” would not have qualified for federal assistance in the 1980s and 1990s.** A key reason is FEMA's failure to update a statistical tool – known as the “per-capita damage indicator” – for inflation the first 13 years after it was first used in 1986. Had FEMA updated the tool using the consumer price index from 1986 to 1999, 45 percent of the 175 declared disasters since 2011 would not have been declared. More simply, it means nearly half of all recently declared disasters would not qualify for federal help. Because the rules have not been updated for inflation. FEMA has spent over \$880 million more in disaster recovery since 2011 than it otherwise would have.
- **FEMA's process for declaring disasters is inconsistent with Congressional intent.** In 1988, Congress made clear federal aid should be provided only when “the disaster is of such severity and magnitude that effective response is beyond the capabilities of the State and the affected local governments and that federal assistance was needed to save lives and property.”<sup>9</sup> But FEMA now provides relief for many routine events that would not have warranted federal assistance in the past.
- **FEMA's process for recommending disaster declarations is structurally biased towards states with smaller populations.** The per-capita damage indicator – which is based on the amount of damage assessed in a state divided by the state's population – benefits less populous states. Oklahoma, for example, receives federal assistance for many small storms or events which would not have been declared disasters if they occurred miles to our south, in the more populous state of Texas. In many cases, severe storms and incidents in large states do not qualify for federal aid, even though the same incident would likely be declared eligible in a less populated state, such as Oklahoma.<sup>10</sup>
- **FEMA does not regularly update the per-capita damage indicator for changes in states' populations.** Since FEMA relies on decennial census data, which are only updated once every ten years, rather than the Census Bureau's annual population estimates, the per-capita damage indicator formula that FEMA uses to recommend disaster declarations is artificially low. Outdated population figures also increase the number of disasters declared.<sup>11</sup>
- **States often over-estimate damage, which increases the number of inaccurate “disaster” declarations.** Even under FEMA's current outdated model, 43 percent of all 2011 and 2012 disasters would not have been declared had a more accurate estimate been provided in the preliminary damage assessment reports. For example, in June 2012, Oklahoma received a disaster declaration for tornadoes, straight line winds and floods.<sup>12</sup> The preliminary damage estimate was \$5.9 million, exceeding the state's damage threshold by about \$840,000.<sup>13</sup> However, two years later, FEMA has only obligated \$2.7 million in disaster-related projects, or \$3.2 million under the original estimate.<sup>14</sup> If a more accurate estimate of damage was considered, FEMA would not have recommended a disaster declaration. States in similar situations have no incentive under the current rules to provide an accurate assessment, but rather to push estimates as high as possible to trigger disaster declarations.

Given the federal government's \$17.5 trillion national debt, Congress and the administration need to reevaluate FEMA's process for recommending disaster declarations. The current trend in which the federal government has assumed increasing responsibility for funding disaster recovery is simply unsustainable. In the past, the federal government has traditionally been the last resort to help states and localities only when they were truly overwhelmed.

There is growing recognition that the disaster declaration process is broken or in need of reform. Former DHS Secretary Janet Napolitano said the process needed to be fixed, explaining to the Senate Homeland Security and Governmental Affairs Committee how the "per capita issue works in strange and unfathomable ways."<sup>15</sup> FEMA Administrator W. Craig Fugate agreed, saying that while the per capita damage indicator "is a factor that has been accepted," he "didn't think it is the best tool."<sup>16</sup>

It is time for FEMA to reform the process for recommending disaster declarations and approving federal disaster aid. In the short run, I encourage the Department of Homeland Security, under the new leadership of Secretary Jeh Johnson, and FEMA to move swiftly to update the per-capita damage indicator for inflation to cover all years since 1986. Moving forward, Congress should enact legislation to ensure disaster funding is focused on the most serious disasters, defined as those that truly overwhelm state and local capabilities, and curb states' increasing dependence on the federal government for disaster aid.

No state will be impacted by this change more than my own home state of Oklahoma. However, Congress is responsible to the American people for ensuring that federal disaster aid is available when states and local capabilities have been overwhelmed. This means tightening up a system that is growing at an uncontrollable rate.

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***FEMA’s 30-year hesitancy to update the per capita damage indicator has significantly inflated the number of officially declared “disasters.”***

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# BACKGROUND



THE FEDERAL EMERGENCY MANAGEMENT Agency (FEMA), which is a component of the Department of Homeland Security (DHS), leads the federal effort to mitigate, respond to, and recover from disasters, both natural and man-made. Disaster declarations can trigger a variety of federal response and recovery assistance for government and nongovernmental entities, households, and individuals.<sup>17</sup>

Throughout most of the nation's early history, the federal government's role in responding to disasters was limited to specific legislative acts that addressed specific emergencies (*See Appendix A*). By the mid-1970s, however, Congress passed the Disaster Relief Act of 1974, which provided an overall structure for public and private assistance for disaster recovery.<sup>18</sup> Nevertheless, even then, the federal government's role remained small compared with today.

During the 1980s, there were no more than 42 disaster declarations in a single year, with as few as 16 in 1988. Disaster declarations jumped sharply, though, just a few years later when in 1996 there were 158 declarations. Over the 40-year period since 1974, over two-thirds of all disasters were declared between 1996 and 2013 (Table 1).<sup>19</sup>

When President Jimmy Carter established FEMA in 1979 to coordinate more efficiently federal disaster relief efforts, the expectation was for costs to go down, not up. He sent a letter to Congress explaining his planned reorganization, citing the need to have one federal agency "to anticipate, prepare for, and respond to major civil emergencies."<sup>20</sup> He added, "I do not expect these actions to result in any changes in program expenditures for those authorities to be transferred. However, cost savings of between \$10 million to \$15 million annually can be achieved by consolidation and elimination of about 300 jobs."<sup>21</sup>

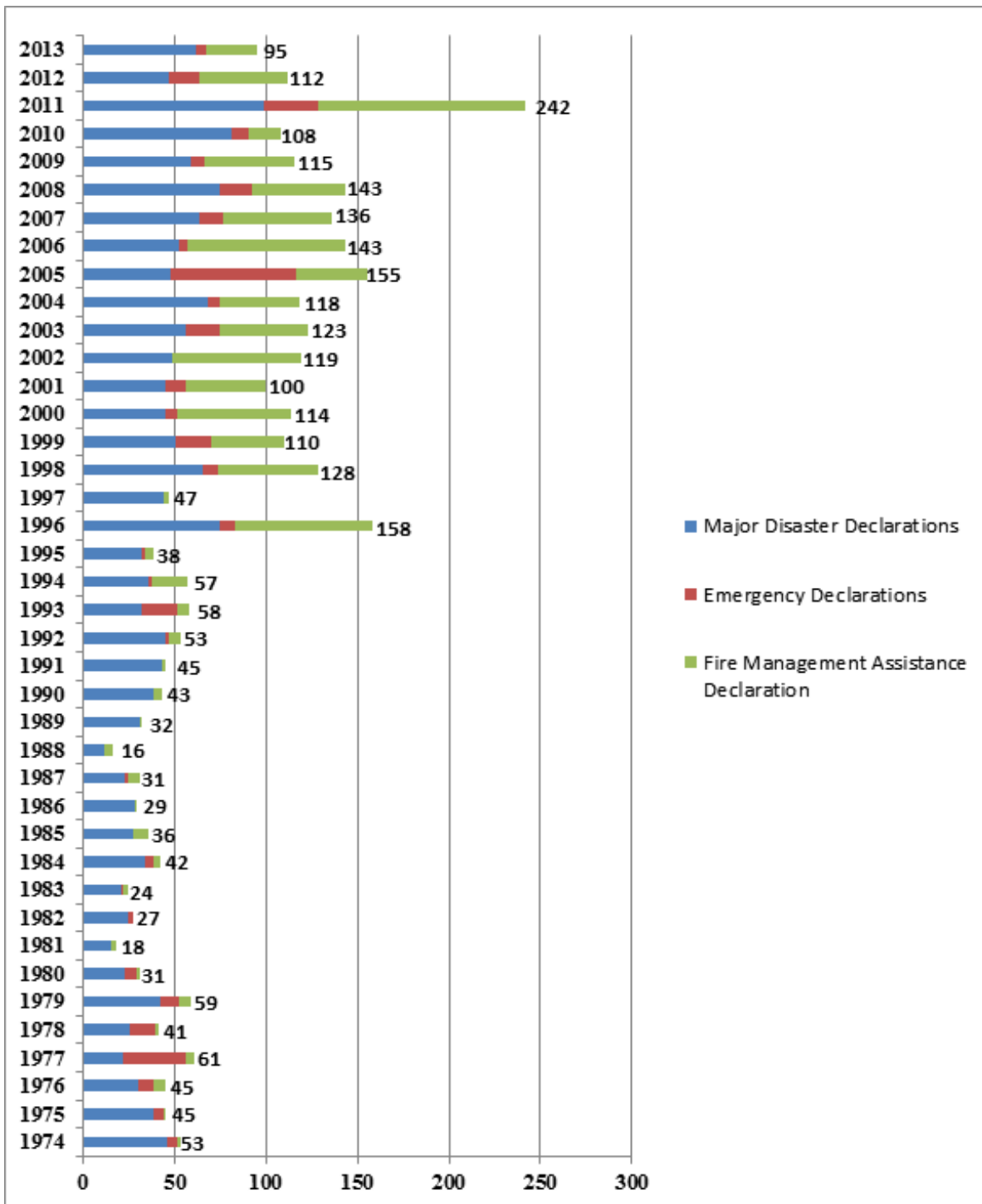
The year before President Carter wrote that letter, the federal government had spent roughly \$13 million<sup>22</sup> to assist response efforts to sixty-one declared disasters, primarily large hurricanes, flooding and earthquakes. Today, even adjusting for inflation, fiscal year 2013 disaster relief spending was \$18.5 billion -- more than 375 times the 1979 figure.<sup>23</sup> So what is causing this increase in cost?

## ***Types of Disasters Under the Stafford Act***

To understand the recent massive surge in federal disaster costs, it is important to understand how the federal government came to be involved in federal disaster aid, the programs which distribute the money, and how the government determines an event is officially a "disaster."

The Disaster Relief Act, originally proposed by President Richard Nixon, was amended in 1988 and it became the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act).

Figure 1—Federal Disaster Declarations Over Time



Source: Federal Emergency Management Agency, "FEMA Disaster Search Database" <http://www.fema.gov/disasters/grid/year>, accessed April 24, 2014

Focusing primarily on the role of FEMA, the Stafford Act granted statutory authority for most federal disaster response activities.<sup>24</sup> Congress's intent was to encourage states and localities to develop comprehensive disaster preparedness plans, prepare for better intergovernmental coordination in the face of a disaster, encourage the use of insurance coverage, and provide federal assistance programs for losses due to a disaster.<sup>25</sup> The Stafford Act was designed to let the federal government supplement state and local resources in major disasters or emergencies where local efforts have been overwhelmed.

Within the framework of the Stafford Act, Congress distinguished between aid for *emergencies* and *major disasters*.

Emergency declarations are issued to protect property and public health and safety and to lessen or avert the threat of a major disaster or catastrophe. In order for a state to receive an emergency declaration, the Governor<sup>26</sup> must send a request to the President to issue a formal declaration. An "emergency" is "any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and protect property and public health or safety, or to lessen or avert the threat of a catastrophe in any part of the United States."<sup>27</sup>

The Stafford Act more narrowly defines "major disasters" as "any natural catastrophe... or, regardless of cause, and fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance ... to supplement the efforts and available resources of states, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby."<sup>28</sup>

Under the umbrella of major disasters is fire management assistance. Under the Stafford Act, "the President is authorized to provide assistance, including grants, equipment, supplies, and personnel, to any state or local government for the mitigation, management, and control of any fire on public or private forest land or grassland that threatens such destruction as would constitute a major disaster."<sup>29</sup> However, the focus of this report is major disaster declarations receiving public assistance, including fire management assistance.<sup>30</sup>

According to the law, declaring an emergency or a major disaster must be based on the finding that the situation:

1. Is of such severity and magnitude that effective response is beyond the capability of the State and the affected local government(s); and,
2. Requires supplementary Federal emergency assistance to save lives and to protect property, public health and safety, or to lessen or avert the threat of a disaster.<sup>31</sup>

The primary distinction between a major disaster and an emergency is that emergencies are generally lesser events that are limited in cost, or can be declared to "lessen or avert the threat of a catastrophe,"<sup>32</sup> such as funding activities to protect citizens and communities prior to the landfall of a hurricane.<sup>33</sup>

## **The Disaster Declaration Process**

The Disaster Declaration Process begins at the local level.<sup>34</sup> In the aftermath of a catastrophe, state and local officials conduct broad Preliminary Damage Assessments (PDA) to determine whether or not to call on the federal government for assistance.<sup>35</sup> If the PDA Team determines state and local resources to be insufficient for recovery, the governor then requests a joint FEMA-State PDA from the FEMA regional office to officially determine if a disaster or emergency is beyond the local and state governments' response and recovery capabilities.

Preliminary Damage Assessment teams composed of FEMA, state, and local emergency management representatives conduct interviews and survey disaster damage firsthand to determine their best estimate of the potential costs of Public Assistance emergency and permanent work. The PDA teams' findings are then compiled into an overall Governor's request for disaster assistance which includes:

- Types of damage or emergency costs incurred by units of government
- Impact on critical facilities (public utilities, individuals, businesses)
- Number of people displaced
- Threat to health and safety caused by the event

In general, the Preliminary Damage Assessment is completed prior to the submission of the Governor's request, however, when an obviously catastrophic event occurs, the Governor may submit a request prior to completing the Preliminary Damage Assessment. Based on the Governor's request, the President may declare either a major disaster or an emergency, thus activating an array of federal programs to assist in the response and recovery effort.

Federal regulations outline the factors FEMA considers when making a recommendation to the President to declare a disaster. For the Public Assistance program, these include: estimated cost of assistance, localized impacts, insurance coverage in force, hazard mitigation, recent multiple disasters, and programs of other Federal assistance.

## **The Per Capita Damage Indicator**

Though regulations outline six factors for FEMA to consider when recommending a declaration, GAO found FEMA primarily relies on one—the estimated cost of assistance by way of the statewide per capita damage indicator.<sup>36</sup> The estimated cost of assistance is evaluated against the statewide population to give some measure of the per capita impact within the State.<sup>37</sup>

The per-capita damage indicator threshold is a critical factor in whether or not the federal government declares a disaster and provides assistance to state and local communities. **And FEMA's 30-year hesitancy to update it has significantly inflated the number of officially declared "disasters."**

In 1986, prior to the passage of the Stafford Act, FEMA proposed the idea of using a statewide per capita damage indicator as a means of gauging the fiscal capacity of a jurisdiction affected by a disaster. This tool is used to determine whether a particular jurisdiction qualifies for Public Assistance funding. In simple language, this means that FEMA's process for declaring a disaster includes taking the total amount of damage that occurs after a storm or disaster, and dividing it by the population<sup>38</sup> of the state where the storm or disaster occurred, and determining whether this per-capita amount is more than a certain threshold (the per-capita indicator). In fiscal year 2013, for example, the per capita indicator was \$1.37 – meaning, a state with 10 million people would have to incur more than \$13.7 million in estimated eligible damage for FEMA to recommend Public Assistance funding. FEMA's 1986 proposal utilized \$1 based on the 1983 national per capita income of \$11,667.<sup>39</sup>

# The Case for Reforming the Disaster Declaration Process



THE OVER RELIANCE OF FEMA on the per capita damage indicator has led not only to more disaster declarations than ever, but also to a heavier burden on the taxpayer. Unless this outdated system is reformed, these trends are unlikely to reverse on their own. The case for reforming the per capita damage indicator is increasingly clear.

## ***The Per Capita Damage Indicator Was Not Adjusted for Inflation for 13 Years***

FEMA informally relied on the \$1.00 per capita indicator from 1985-1998 when assessing whether the President should declare a disaster. In 1998, FEMA considered adjusting the per capita damage indicator to \$1.51 to account for inflation since 1986, but because of the influence of state emergency management officials, FEMA decided not to do so.<sup>40</sup>

In 1999, FEMA issued a rule codifying the per capita indicator at \$1.00, despite the changes the U.S. economy had undergone in the previous 13 years. The language codifying the per capita damage indicator was added to Federal regulations in 1999.

The rule was set to include an annual adjustment for inflation, but did not specify whether the indicator would continue to be based on nationwide per capita personal income or consumer price inflation (CPI), which has grown less rapidly than income since 1999. As a result, the indicator has only risen 37 percent, from \$1.00 to \$1.37, since 1986. Meanwhile, inflation would have increased the indicator from \$1 of damage to \$2.16 in 2014.<sup>41</sup>

## ***The Per Capita Damage Indicator Artificially Inflates the Number of “Disasters”***

Until the per capita damage indicator is updated to keep pace with inflation, the number of annual declarations will continue to be higher than it otherwise would be.

In 2011, President Obama, relying on FEMA’s assessments, set the record for disaster declarations by issuing 242. That figure included 99 Major Disaster Declarations and a record 114 Fire Management Assistance Declarations.<sup>42</sup> In April of this year, thirty states were simultaneously grappling with what, according to FEMA, were disasters which overwhelmed the states’ ability to respond.<sup>43</sup>

That is largely due to the misuse of the per capita damage indicator, which has remained virtually unchanged since it was established in 1986. In 2012, GAO analyzed hundreds of disaster declarations and reached similar conclusions that FEMA’s failure to adjust the indicator has been a key reason for the increase in disaster declarations in recent years.<sup>44</sup>

GAO analyzed actual and projected obligations for 508 disaster declarations which received Public Assistance grants during FY2004-2011.<sup>45</sup> It found that fewer disasters would have met either the personal income-adjusted or the inflation-adjusted Public Assistance per capita damage indicators for the years in which the disaster was declared. Specifically, GAO found that nearly half – a full 44 percent -- of those disasters would not have met the threshold public assistance per capita indicator if the indicator had been adjusted for changes in income, and that 25 percent would have failed to qualify had the public assistance per capita damage indicator been adjusted for inflation.<sup>46</sup>

### ***The Per Capita Damage Indicator Does Not Keep Up With Changes in Population***

Another flaw in FEMA's disaster calculations is its reliance on outdated population statistics, even when more up-to-date data is available. FEMA uses decennial Census data – gathered once a decade – to determine a state's population. However, the Census Bureau updates its population data in each state annually based on births, deaths and migration data. Each year, as decennial census data ages, it becomes less accurate, yet it is FEMA's favored source of population data.

In 2010, the Census reported Oklahoma's population as 3,759,263. In 2013, our population grew by roughly 91,000. To put this population growth into FEMA indicator terms, in 2013, Oklahoma could have paid \$125,000 more per disaster before "being overwhelmed." While this Oklahoma example may seem minor, in California, the difference is over \$1.5 million. If FEMA adjusted their population numbers based on the most current annual Census data, from 2008 to 2013, eight disasters likely would not have been declared, saving taxpayers over an estimated \$93.4 million.

### ***The Per Capita Damage Indicator Fails to Adequately Consider States' Fiscal Health***

Congress intended for disaster relief to only be provided when "the disaster is of such severity and magnitude that effective response is beyond the capabilities of the State and the affected local governments and that federal assistance was needed to save lives and property."<sup>47</sup> FEMA does not look at whether states are financially overwhelmed before it recommends a disaster declaration, only population and an artificially low dollar value. However, there are measures available to help FEMA understand states' true ability to respond financially to a disaster.

For instance, the Department of the Treasury produces annual estimates of state's Total Taxable Resources defined as "the unduplicated sum of the income flows produced within a state and the income flows received by its residents that a state can potentially tax."<sup>48</sup> The latest estimates for Total Taxable Resources show that Wyoming, the least populous state has a higher Total Taxable Resources per capita than the most populous state, but would only have to meet \$1 million in damage compared to California's \$50 million plus in damages for a disaster declaration.

Budget stabilization or "rainy day" funds allow states to set aside excess revenue for use in times of unexpected revenue shortfall or budget deficit.<sup>49</sup> According to a survey conducted by the National Association of State Budget Officers, many states are now projecting budget surpluses and are contributing these surpluses to "rainy day funds."<sup>50</sup> In fiscal year 2014, forty-four states and the District of Columbia maintained rainy day funds.<sup>51</sup> Of the states participating in the survey, the average rainy day fund balance was \$43 million.<sup>52</sup>

## States Often Exaggerate How Much Relief Aid They Need

After a storm, earthquake or other event, state and local officials conduct broad Preliminary Damage Assessments (PDAs), cost estimates for the impact of the event, to determine whether or not to request federal disaster support.<sup>53</sup> FEMA divides the PDA by the state's population to determine the per capita damage assessment, and if it is above FEMA's threshold it triggers a disaster declaration and the release of federal relief funds.<sup>54</sup> However, our analysis shows that current policies create incentives for states to overestimate the damage because it gives them a better chance to secure federal funding. Moreover, there is no way to reclaim money if the estimates turn out to be wrong.

In examining the PDAs for all disasters in 2011 and 2012, and compared them against the projected obligated costs of the disasters to date,<sup>55</sup> it was discovered that states consistently overestimate the damage caused by weather events, and do so much more frequently than they underestimate the cost of the storm damage. The analysis found that in many of those cases, the events *would not have been declared disasters* if the states had more accurately assessed damage.

Over the two-year period, we found that 41 percent of declared disasters did not generate obligated costs commensurate to the state's original preliminary damage, two years after the disasters occurred. The District of Columbia, for example, overestimated its damage one hundred percent of the time, but has the highest Total Taxable Resources Rate per capita (\$101,886)<sup>56</sup> and over \$1.75 billion in the district rainy day fund.<sup>57</sup> Based on population and an artificially low per capita damage indicator, the District was considered "overwhelmed," but based on its TTR and budget surplus in the rainy day fund, it was far from being overwhelmed.

Another explanation for the high estimates is the length of time states complete their damage assessments. The 2012 DHS-OIG report found that a state preliminary damage assessment during Hurricane Irene was done by three individuals who sat down and assigned costs to affected counties until indicators were met. The FEMA staff told the DHS-OIG that the dollar amounts were not necessarily a true representation of the total damage. At another Joint Field Office (JFO), FEMA told the DHS-OIG that Hurricane Irene was declared a disaster before the PDA was completed. The Preliminary Damage Assessment process continued for three days after the disaster was declared and did not cover all of the damages.<sup>58</sup>

## FEMA Has Opposed Reform Despite Strong Recommendations From Oversight Watchdogs

In 2012, the DHS Office of Inspector General (DHS-OIG) reported if the \$1.00 per capita figure had been adjusted retroactively based on the Consumer Price Index (CPI) since 1983,<sup>59</sup> over 36% of major disasters declared in 2009 and 2010 would not have reached the statewide per capita indicator.<sup>60</sup> FEMA responded that they do not believe it is reasonable to retroactively apply such an adjustment that could result in over one third of currently declared incidents not being declared major disasters.<sup>61</sup>

The DHS-OIG recommended FEMA update the state per capita damage indicator threshold criteria to better reflect the current economic conditions.<sup>62</sup> FEMA disagreed, stating "in 1999, [they] issued a regulation outlining the factors considered when evaluating a Governor's request for a major disaster declaration. The proposed rule, published on January 26, 1999, stated that the factors represent a simple, clear and reasonable means to measure the severity, magnitude and impact of a disaster, while at the same time ensures that the President can respond quickly and effectively to a Governor's request for assistance."<sup>63</sup>

FEMA went on to say they are "fully cognizant of current restraints on the Federal budget, and... implementing measures to closely manage the Disaster Relief Fund in particular. However, many State

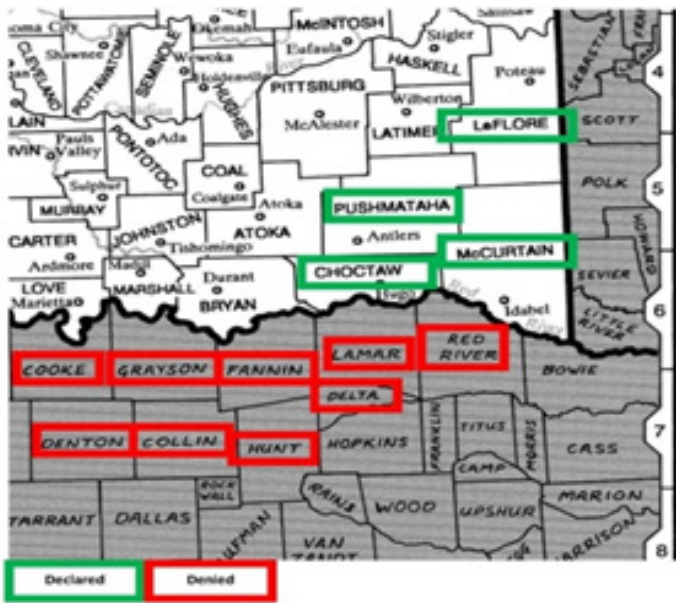
and local governments are likewise experiencing significant budgetary constraints, which often make Federal disaster assistance dollars all the more important to communities recovering from the impact of major disasters.”<sup>64</sup>

However, calls for reform have come not only from watchdogs and government reformers, but also from FEMA’s own administrator. In a March 2013 hearing before the Senate Homeland Security and Governmental Affairs Committee, FEMA Administrator Craig Fugate testified that he “did not think the per capita damage indicator is the best tool to determine whether or not a state or local capacity is overwhelmed. The per capita damage indicator only looks at a numeric basis and does not look at states’ reserves, financing, or taxing authority.”<sup>65</sup>

## The Per Capita Damage Indicator Unfairly Favors Small States

An unintended consequence of the current design of the per capita damage indicator is how it favors small states, such as Oklahoma, over large states such as Texas. This owes to the fact that the same dollar threshold is used everywhere, creating a low bar to declare a disaster in a small state and a high bar in a large one. The effect of this design flaw is that in some instances the same storm can result in a declaration on one side of a state border, but not on the other.

Figure 2: Oklahoma-Texas Border December 2013 Winter Storm Disaster Zones



In order for a state to qualify for federal assistance, the per capita cost of the damage incurred by the storm must exceed the per capita damage indicator established by FEMA.

Because the formula divides the total estimated cost of damage by the number of residents in the state, the results can vary from state to state. For example, \$1 million in estimated damage in a state with 1 million residents would result in \$1 of per capita damage. However, \$1 million in damage in a state with 10 million people would produce 10 cents in per capita damage.

An example of how this can create a seemingly unfair distribution of resources happened in 2013. A major winter storm hit a broad part of the northern Texas and southern Oklahoma. Both states applied for disaster relief. FEMA denied the State of Texas’s request for a major disaster declaration in Cooke, Grayson, Fannin Counties and five others near the Oklahoma-Texas border affected by the storm, stating

“the impact from the event was not of the severity and magnitude that warrants a major disaster declaration”.<sup>66</sup> However, FEMA granted Oklahoma a declaration for the very same storm in Choctaw, Le Flore, McCurtain, and Pushmataha counties, which border some of the denied Texas counties.<sup>67</sup> Why did this happen? Because in Oklahoma, damage only needs to exceed \$5.1 million to get over the per capita damage indicator threshold and qualify for federal assistance, while in Texas, it needs to exceed \$35 million for the state to qualify. The preliminary damage assessment for Texas’s winter storm was \$30 million,<sup>68</sup> five million short of their threshold but almost \$25 million more than Oklahoma’s damage.

It is important to note, that measuring damage against the size of a state’s population is not the same as measuring damage against a state’s fiscal capacity to respond to a disaster. By focusing exclusively on a state’s population, FEMA fails to consider any fiscal indicators, like its tax revenue or



cash reserves. This means that a storm that causes \$1 million of damage in a small state like Wyoming might be considered a disaster, whereas an earthquake in California causing \$50 million in damage will not automatically be declared a disaster. And because of the formula's design, it does not account for whether each state is financially able to handle the problem without federal aid.

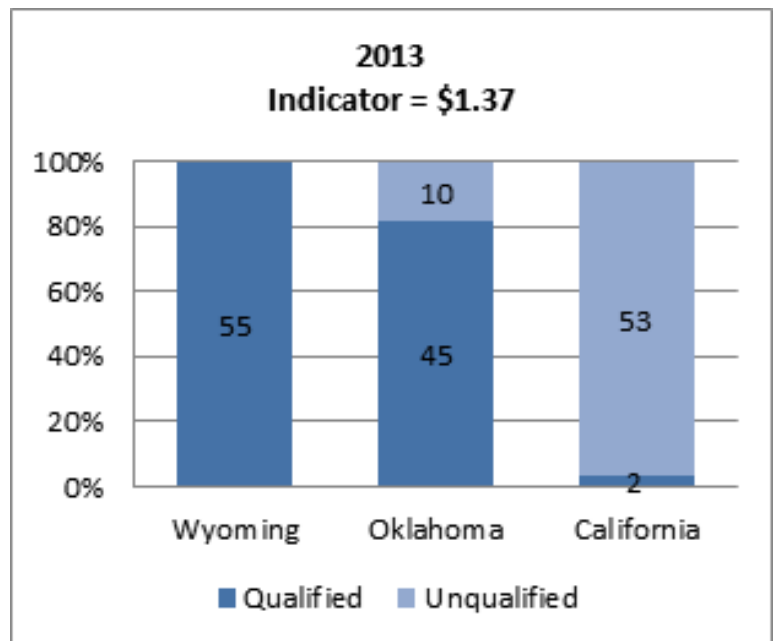
### Analysis of Disaster Events Declared from 2009 to 2013: Would "Disasters" Have Been Declared In Each State?

The examples of the storms that were declared disasters on the northern side of the Oklahoma-Texas border but not in communities in Texas highlight potential problems with the per-capita damage indicator. To better understand this issue, we examined data for over 300 major disasters declared between 2009 and 2011, and examined each declaration asking a simple question: would a disaster have been declared had it occurred in each other state? Using data from FEMA's preliminary damage assessments, we applied the estimated financial impact of each major disaster to all 50 states to determine how many would have been eligible to receive federal grant money to assist in their recovery had the disaster occurred within their border.

We used the data to establish an annual "declaration batting average" for each state, to demonstrate the likelihood that a particular state would qualify for any one of the disasters in a given year. The results demonstrated how population was the most significant factor, and that small states were far more likely to qualify for Public Assistance grants than larger states—in some years, as much as 97% more.

In 2013, for example, the per capita damage indicator used by FEMA was \$1.37. Had every 2013 disaster occurred in Wyoming, 100% of them would have been declared, whereas 45 (82%) would have been declared in Oklahoma and only 2 (4%) would have been declared in California (Table 3). The effect becomes clearer when looking at the entire nation. Table 4 shows states in order of their population. The higher a state's population, the less likely it would receive a disaster declaration.

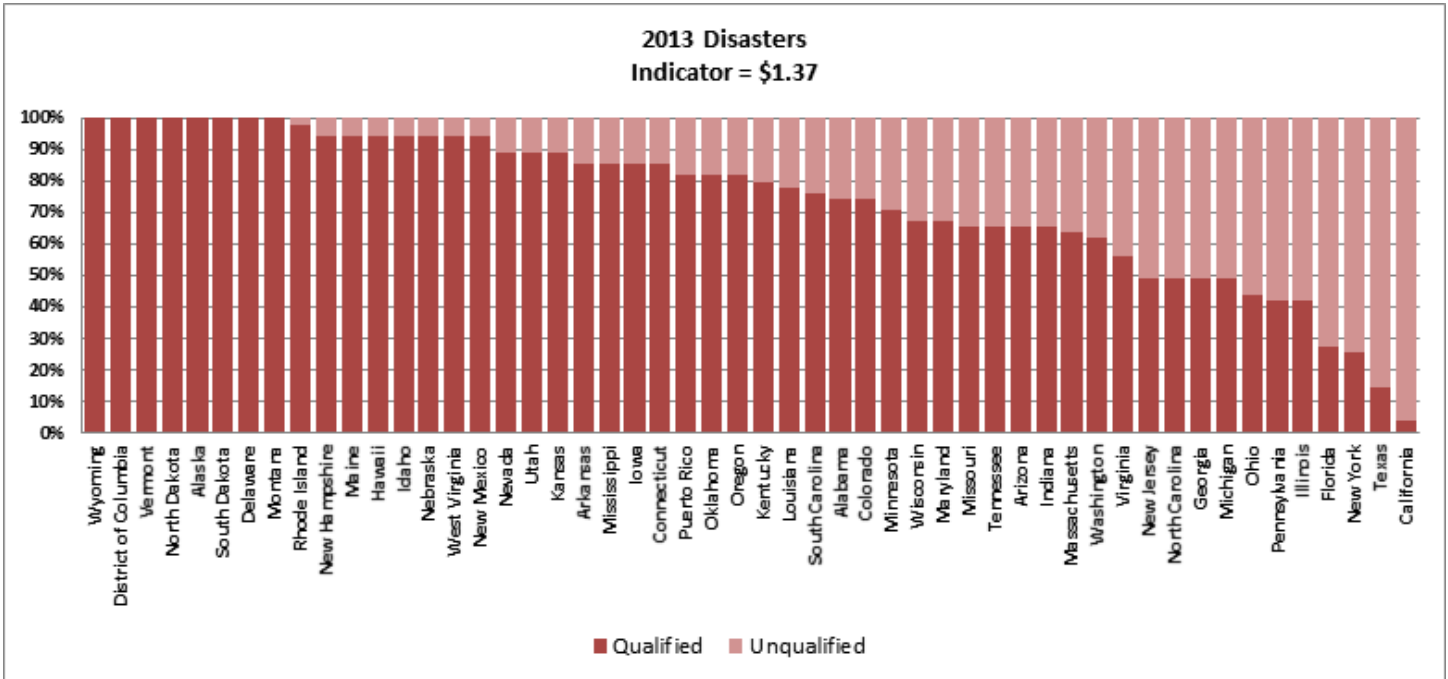
Table 3: Comparison of FEMA's 2013 Indicator



### Examples of Disasters that Would (or Wouldn't) Have Been Declared Disasters Had They Happened in Other States

To put this analysis into perspective, it is helpful to examine some specific events, and consider whether they would have been declared a disaster in other states, based on FEMA's use of the per-capita-damage indicator. In some cases, storms that most people would likely agree were examples when state and local capabilities were overwhelmed and lives and property were at stake would not have been declared a disaster had it happened in another state. On the other hand, some storms or events most would agree were not a disaster received a declaration because they occurred in a small state. Consider the following examples:

**Table 4: Comparison of FEMA's 2013 Indicator Across All States**



**The “D.C.” Earthquake:** On October 21, 2011, the District of Columbia’s Mayor requested a major disaster declaration due to a 5.8 magnitude earthquake during the period of August 23–28, 2011. On November 8, 2011, President Obama declared that a major disaster existed in the District of Columbia. The earthquake, which was centered near Mineral, Virginia approximately 95 miles Southwest of DC,<sup>69</sup> was not a particularly injurious one in the DC area with no deaths reported.<sup>70</sup> DC’s Preliminary Damage Assessment estimate was \$6,866,321 or \$11.41 per capita earning it a disaster declaration.<sup>71</sup> If this 5.8 magnitude earthquake had occurred in twenty-one other states, including California which ranks second in the United States for earthquake activity,<sup>72</sup> it would not have met the per capita damage indicator threshold to be declared a disaster.

**Delaware and Hurricane Irene:** On September 23, 2011, Delaware’s Governor requested a major disaster declaration following Hurricane Irene, which affected the state from August 25–31, 2011. To qualify for FEMA recovery funds, the state had to show it met the federal threshold of \$1.14 million in costs statewide.<sup>73</sup> State leaders explained that the state government would work to identify enough damage to become eligible for a disaster. According to Governor Jack Markel, “Delaware was relatively fortunate with regard to the damage wrought by Hurricane Irene, but [the Delaware Emergency Management Agency], working with other state agencies, the county and local governments and with representatives of both FEMA and SBA, have worked to identify enough damage to make some parts of the state eligible for some types of assistance.”<sup>74</sup>

On September 30, 2011, President Obama declared that a major disaster occurred in the State of Delaware. The preliminary damage assessment estimate for damages in Delaware was \$2,075,329 or \$2.31 per capita.<sup>75</sup> Before Irene arrived, forecasters warned of winds of up to 110 mph, hammering coastal areas like Rehoboth Beach. However, the National Weather Service reported that the highest wind gusts were much lower at 66 mph near Lewes, eight short of official hurricane strength.<sup>76</sup> If Delaware’s damage for Hurricane Irene was placed in any other state, only nine of them would receive a disaster declaration based on the per capita damage.

**California's \$44 Million Non-Disaster Storm:** On April 22, 2011, California's Governor requested a major disaster declaration after several weather-related incidents brought snowstorms, heavy rain, high winds, flooding and flows of debris and mud during the period of March 15-27, 2011. The Governor requested Public Assistance for 17 counties and Hazard Mitigation statewide. On June 21, 2011, the Governor's request was denied after FEMA determined the damage was not severe enough to overwhelm the combined capabilities of the State, including its local governments and volunteer organizations. On July 13, 2011, Governor Brown's appeal was denied. During the period of April 19-22, 2011, joint federal, state, and local government Preliminary Damage Assessments (PDAs) were conducted in the requested counties for a total Public Assistance estimate of \$44,547,342.<sup>77</sup> While this amount was not found to overwhelm California's ability to respond, had the same amount of damage occurred in any other state or the District of Columbia, it would have triggered a disaster declaration.

**Oklahoma's June 2012 Storms:** On June 8, 2012, Oklahoma's Governor requested a major disaster declaration due to severe storms, tornadoes, straight-line winds, and flooding during the period of April 28 to May 1, 2012. On June 14, 2012, President Obama declared that a major disaster existed in the State of Oklahoma. The Preliminary Damage Assessment estimate was \$5,908,419 or \$1.58 per capita.<sup>78</sup> Half of the states would not have been eligible for this disaster because the per capita damage indicator would not exceed their statewide threshold.

**Montana's July 2012 Wildfires:** On July 25, 2012, Montana's Governor requested a major disaster declaration due to a wildfire during the period of June 25 to July 10, 2012. On August 2, 2012, President Obama declared that a major disaster existed in the State of Montana. Montana's Preliminary Damage Assessment estimate was \$1,602,905 or \$1.59 per capita.<sup>79</sup> Only eight other states would have also qualified for a disaster declaration with the same amount of damage. However, Oklahoma was denied a declaration for wildfires during July 28 through August 28, 2012 because our damage was only estimated at \$4.7 million, or \$1.25 per capita.<sup>80</sup>

**Oklahoma's March 2013 Snowstorm:** On March 28, 2013, Oklahoma's Governor requested a major disaster declaration due to a severe winter storm and snowstorm during the period of February 24-26, 2013. The Governor requested a declaration for Public Assistance for 17 counties, snow assistance for seven counties, and Hazard Mitigation statewide. On April 8, 2013, President Obama declared that a major disaster exists in the State of Oklahoma based upon a Preliminary Damage Assessment estimate of \$7,536,660 or \$2.01 per capita.<sup>81</sup> Twenty other states would not have met this threshold to receive a disaster declaration, including Oklahoma's southern border state Texas. In order for Texas to meet the requirement for a declaration, there would have to be roughly \$36.2 million in damage, or roughly \$30 million more than Oklahoma.

**Vermont July 2013 Flooding:** Additionally, on July 23, 2013, Vermont's Governor requested a major disaster declaration due to severe storms and flooding during the period of June 25 to July 11, 2013.<sup>82</sup> On August 2, 2013, President Obama declared that a major disaster existed in the State of Vermont. Vermont's Preliminary Damage Assessment estimate was \$3,953,300, or \$6.31 per capita;<sup>83</sup> however the State would have only had to exceed \$1 million to receive a declaration. Thirty-four other states would not have received a declaration for less than \$4 million in damage estimates in 2013.

**South Dakota's 2013 Storms:** On July 23, 2013, South Dakota's Governor requested a major disaster declaration due to severe storms, tornadoes, and flooding during the period of June 19-29, 2013. On August 2, 2013, President Obama declared that a major disaster exists in the State of South Dakota. South Dakota's Preliminary Damage Assessment estimate was \$1,711,263 or \$2.03 per capita.<sup>84</sup> Only seven states – Alaska, Delaware, Montana, North Dakota, Rhode Island, Vermont and Wyoming – would have also classified under the \$1.7 million threshold to qualify for a disaster declaration.

**Texas's Halloween Floods:** On December 20, 2013, Texas received a disaster declaration for

severe storms and flooding during the “Halloween Floods” (October 30 through October 31, 2013). Texas’s Preliminary Damage Assessment estimate was \$48,459,113 or \$1.83 per capita.<sup>85</sup> The Halloween Floods would have been declared a disaster in all states except for California because the damage would not have exceeded the required \$53 million threshold.

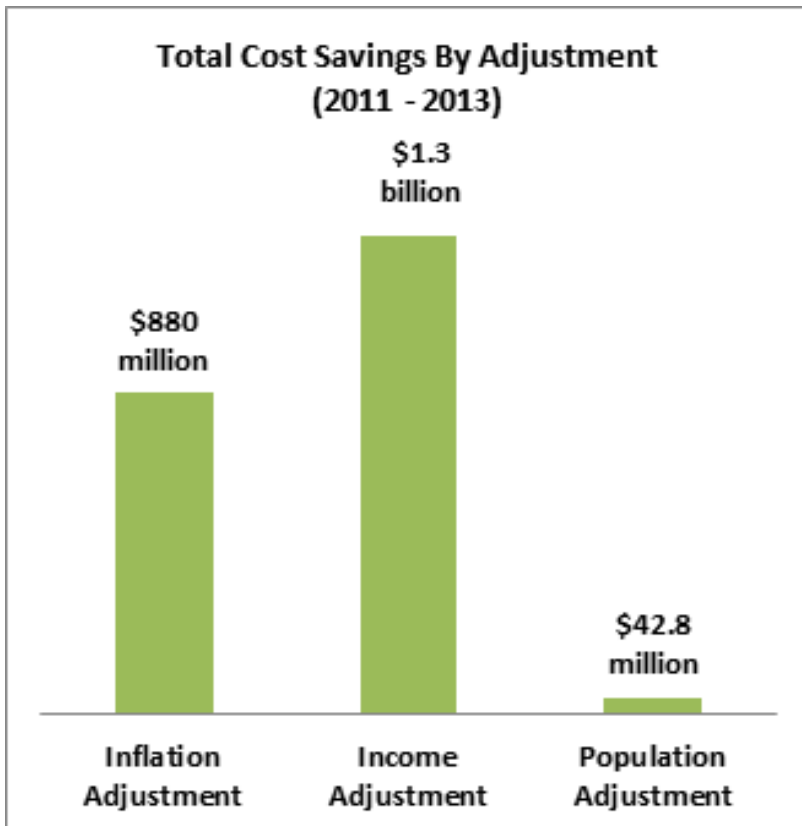
**Illinois’s Request for Tornado Relief Rejected:** FEMA denied Illinois’s appeal of the agency’s initial decision against financially assisting local Illinois governments affected by the tornadoes that ravaged several counties in the state on November 17, 2013. The tornadoes caused nearly \$6.1 million in damages, according to the governor’s office, and killed eight people and damaged or demolished some 2,500 homes.<sup>86</sup> FEMA denied the request for assistance based on the determination that the damage was not of such severity and magnitude as to be beyond the combined capabilities of the State, affected local governments, and voluntary agencies. However, if these tornadoes were placed in smaller populated states the estimated \$6.1 million in damage would have been exceeded and a declaration would have been likely.

### The United States Would Gain Cost Savings, Accuracy if FEMA Updated Per Capita Damage Indicator

Had FEMA updated their per capita damage indicator for inflation since 1986 for 2011 through 2013, there would have been 67 fewer disasters (Table 5); saving roughly \$880 million in federal disaster costs (Table 6). If the per capita damage indicator were updated for inflation in income, there would have been 113 fewer disasters declared with a cost savings of roughly \$1.3 billion. If FEMA changed their

policy of relying on the decennial Census to using the Census’s annual population estimates, there would have been nine less disaster declarations and a cost savings of almost \$43 million since 2011 (Appendix B).

Table 6: Total Cost Savings by Adjustment



Congress funds the DRF annually through regular appropriations in a “no year” account – meaning the appropriations do not expire after a set period of time. The funds for no-year accounts are available until expended—any remaining funds at the end of the fiscal year are carried over to the next fiscal year.<sup>87</sup>

FEMA’s Fiscal Year 2015 budget request asks for \$7 billion<sup>88</sup> – an increase of \$813 million from fiscal year 2014<sup>89</sup>— for the Disaster Relief Fund (DRF) based in part on the average cost of disasters over the past ten years. FEMA’s budget justification states the request is the “estimated requirements for all past declared catastrophic events, including Hurricane Sandy and the 10-year average obligation level for non-catastrophic disaster activity (less than \$500 million).”<sup>90</sup> The funding request for major disasters is based on FEMA’s spending plans for all past

declared major disasters. The non-catastrophic funding request is based on a revised approach that uses a 10-year average for non-catastrophic events.<sup>91</sup> FEMA argued that using a 10-year average of costs as opposed to the previous use of a 5-year average of costs “provides a more accurate projection of non-catastrophic needs since it normalizes the effects of outlier years.”<sup>92</sup>

By bringing the per capita damage indicator in line with its initial formulation, FEMA could save hundreds of millions of dollars per year and reducing the fiscal burden on the DRF.

# Conclusion



MY OFFICE'S YEARLONG REVIEW of FEMA's process for disaster declarations and providing relief to states and local communities revealed several key issues. First, the federal government is declaring events "disasters" that would not have been considered disasters in the 1980s and 1990s. As a result, FEMA is providing relief for many routine events, which is inconsistent with Congressional intent requiring that aid only be provided when state and local capabilities have been overwhelmed and lives and property were at stake. FEMA's process for recommending disaster declarations is also outdated and unfairly biased to advantage less populous states. It also encourages states to overestimate the amount of damage that has occurred after an event to become eligible to receive federal assistance.

If the government were to design a new disaster declaration system from scratch it surely would not look like the system that we have today.

For instance, we would not create a system where the same storm could be declared a disaster in one part of the country and not in another simply based on a state's population. We also wouldn't

design a process that encourages states to gather evidence to show that a storm was disaster, so that they federal government would step in and provide emergency assistance weeks or even months after it occurred.

In all likelihood, it would look closer to the one that was the norm for most of our nation's history, when federal assistance

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***A new system for declaring disaster should be consistent with Congressional-intent: to provide federal disaster aid only when states and local communities have been truly overwhelmed and when lives or property are at stake, and federal relief actually needed.***

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was reserved for only the most severe storms, or at least to limit assistance when states and local communities were truly overwhelmed and needed help from the federal level.

I ask my colleagues in Congress, and the administration to work with me to review this evidence and work together to reform our process for declaring disasters in a way that makes sense.

In the short-term, at the very least, FEMA should update the per capita damage indicator for inflation for all of the years since 1986 to reduce the number of small scale storms that are declared disasters. FEMA should also update the per-capita damage indicator's annual population estimate from the Census Bureau, rather than only using population estimates from the decennial census. The reasonable changes would make the per-capita damage indicator a stronger metric for the time being until Congress and FEMA can replace it with something better.

Looking to the future, Congress and FEMA should work together to reform the disaster declaration process. A new system for declaring disaster should be consistent with Congressional-intent to only provide federal disaster aid when state and local communities have actually been overwhelmed and when lives or property are really at stake, and federal relief is truly needed. It should also curb states' increasing dependence on federal disaster funding and the current incentive to exaggerate disaster aid, such as by increasing states' cost share to qualify for aid or by strengthening FEMA's process for assessing damage and tracking expenditures.

# Appendix

## Appendix A: History of Disaster Legislation

Throughout most of the nation's early history, the federal government's role in responding to disasters was limited with specific legislative acts to address specific emergencies. The first known instance of the federal government providing relief to disaster victims in the form of financial aid dates back to 1802, when Congress granted victims of a fire in Portsmouth, New Hampshire an extension on the repayments of their customs house bonds.<sup>93</sup> Between 1803 and 1947, various fires, floods, earthquakes and tornadoes stimulated over 100 different legislative acts specifically authorizing various types of informal relief to the victims of these disasters.<sup>94</sup> However, the federal government did not enact legislation that created an ongoing or formal role in providing assistance during the aftermath of a disaster or emergency, suggesting that the general view of Congress was that disaster response and assistance was not a federal responsibility.

Even in the aftermath of human tragedy and recognized need for assistance, national leaders sought to limit the role of government and instead encourage charity and private action to help those in need. For example, on February 16, 1887, President Grover Cleveland vetoed the Texas Seed Bill that would have appropriated \$10,000 to victims of a drought in Texas to pay for seeds that were lost from their crops. He explained that the Constitution did not allow for the government to have the power or duty to relieve individual suffering that is not related to public service or for the public's general benefit.<sup>95</sup> Clara Barton, the founder of the American National Red Cross, echoed President Cleveland's sentiments by saying, "The counties which have suffered from drought need help, without doubt, but not help from Congress." Private sources could do the job, she added, and she was right. Contributions arrived from all over Texas; the people of Kentucky and other states responded also. West Texas eventually received not \$10,000 of Federal funding, but over \$100,000 in private aid.<sup>96</sup>

In 1905, Congress passed a bill designating the American National Red Cross as the official agent of the federal government to collect and distribute disaster relief through private funds to aid victims of disasters.<sup>97</sup><sup>98</sup> Congress had now assigned the organization the legal responsibility of disaster relief, though did not appropriate the organization any funds.<sup>99</sup> The quasi-governmental organization was tested in 1927 during the Great Mississippi Flood which covered 23,000 square miles, displaced hundreds of thousands of people and killed almost 250 people.<sup>100</sup> The Red Cross carried most of the relief burden in a large scale cooperative effort between federal, state and local agencies.

It was the Great Mississippi Flood of 1927 that made flood control a key issue of concern for the federal government. In 1928, Congress spent over \$300 million the next year on projects related to flood control along the lower Mississippi River.<sup>101</sup> During the previous 200 years, local governments had paid an estimated \$292 million in lower Mississippi flood protection works. Now in a single act, the Congress authorized expenditures of \$325 million.<sup>102</sup> In 1928, \$300 million was a significant amount of money on a federal level to put into one area of the country, especially when it had not been precedent to take on the responsibility of disaster mitigation practices. In 2013 dollars, this would be the equivalent of providing \$4 billion to an area which previously received nothing. This appropriation opened the door for a greater federal role in federal disaster recovery, specifically with the Flood Control Acts of 1936 and 1938.<sup>103</sup> The 1938 Act authorized 100 percent federal financing of dams and reservoirs and the Army Corps of Engineers refocused its efforts on flood protection approaches on reservoirs, levees and diversions of major rivers, where they previously were not active before.<sup>104</sup>

The 1930s saw a series of natural disasters, such as the 8-year long drought known as the Dust Bowl, various earthquakes, tornadoes and hurricanes. In a decade when the federal government was becoming more active in many areas of American life, it also began taking on more of a responsibility for disaster relief efforts. The Federal Relief Administration was authorized on May 12, 1933 to distribute surplus government property to state and local governments that were affected by disasters and the Federal Civil Works Administration was given orders to repair bridges and roads by President Franklin Roosevelt. Congress formalized these practices in 1947 when it passed its first Disaster Relief Act, wherein, local governments affected by a disaster could turn to either the War Assets Administration or the Federal Works Administration to request for surplus federal property.<sup>105</sup>

After World War II, concern over the possible use of atomic weapons and growing hostility between the United States and the Soviet Union gave rise to the Cold War. As a consequence, disaster management in the United States was organized around two tracks: (1) the threat of a nuclear war and (2) natural disasters. Several landmark federal disaster laws and policies originate from attempts by lawmakers during this era to prepare the civilian population for a potential atomic attack and provide aid after a natural disaster.<sup>106</sup> The most notable of these laws were the Civil Defense Act of 1950<sup>107</sup> and the Federal Disaster Relief Act of 1950.<sup>108</sup> These laws set into motion federal-to-state assistance, prompting the need for an account to fund disaster and emergency activities.

The Disaster Relief Act of 1950 was a major turning point in the federal government's approach to disaster recovery in the United States. The Disaster Relief Act created a permanent relief fund and granted the president broad discretionary power to decide what constitutes a disaster, and whether an event is eligible for federal aid. With the law's passage, the United States as a nation took on the financial responsibility of helping citizens recover from disasters. Though the Red Cross continued to manage the distribution of relief to private citizens and private businesses, under the Disaster Relief Act, the federal government assumed responsibility for the repair and restoration of state and local government facilities.<sup>109</sup> Nevertheless, between 1953 and 1960, the federal government was only averaging less than 14 disaster declarations per year.

After criticisms that the Disaster Relief Act of 1950 did not adequately address large-scale, catastrophic disasters, Congress enacted the Disaster Relief Act of 1966. Some of the measures in the act included the authorization of federal agencies to provide disaster loans below market rates, and the extension of aid to unincorporated areas.<sup>110</sup>

A new high for major disaster declarations was reached in 1969, requiring a total allocation of roughly \$150 million<sup>111</sup> from the President's Disaster Relief Fund. It was the largest appropriation for disaster relief since the enactment of the original Disaster Relief Act nineteen years earlier.<sup>112</sup> On August 17, 1969, Hurricane Camille, the second Category Five ever to make landfall at the time, did so at the mouth of the Mississippi River. In total, Camille killed 256 people and caused \$1.42 billion in damages (in 2014 this would be \$8.9 billion).<sup>113</sup> Responding to the devastation of Hurricane Camille and other catastrophes of 1969, Congress passed the 1970 Disaster Relief Act (PL 91-606).

The 1970 Disaster Relief Act aimed to establish a comprehensive and permanent program of federal assistance that would cover both private and public losses. Through the 1960s, disaster relief had gradually expanded from the relief of local governments to include funding for the repair of damaged higher education facilities, debris removal from private property, as well as unemployment compensation and food stamps for those disaster victims that found themselves in "hard pressed situations."<sup>114</sup> Also adding to the new, uncharted territory was relief for individual victims, such as mandating grants for temporary housing and legal services.<sup>115</sup> The most significant change that occurred with the 1970 Disaster Relief Act was the authorization of *permanent* repair for damages, as opposed to previous restrictions which only covered temporary repair. The 1970 Disaster Relief Act was amended in 1974 to establish a two-tiered system to distinguish between emergencies and major disasters as well as expand the president's authority to provide immediate relief.<sup>116</sup>



Throughout most of the nation's early history, the federal government's role in responding to disasters was limited with specific legislative acts to address specific emergencies. By the mid-1970s, the United States had federal disaster legislation which provided an overall structure for public and private assistance for disaster recovery. Nevertheless, the federal government's role remained small compared to today. The year before FEMA was established the federal government spent roughly \$13 million<sup>117</sup> for sixty-one declarations, primarily for large scale hurricanes, flooding and earthquakes. In 1979, President Jimmy Carter established the Federal Emergency Management Agency (FEMA) to coordinate disaster programs that were distributed across a host of other agencies (such as Agriculture, Commerce, Labor, Housing) in order to coordinate disaster relief efforts more efficiently. In President Carter's letter to Congress regarding Reorganization Plan No. 3 (creation of FEMA), he said the reorganization rested on several fundamental principles:

- Federal authorities to anticipate, prepare for, and respond to major civil emergencies should be supervised by one official response to the President and given attention by other officials at the highest levels;
- An effective civil defense system requires the most efficient use of all available emergency resources;
- Whenever possible, emergency responsibilities should be extensions of the regular mission of Federal agencies; and
- Federal hazard mitigation activities should be closely linked with emergency preparedness and response functions.

President Carter further wrote "I do not expect these actions to result in any significant changes in program expenditures for those authorities to be transferred. However, cost savings of between \$10 million to \$15 million annually can be achieved by consolidation and elimination of about 300 jobs."<sup>118</sup> However, FEMA's creation marked a new era in federal disaster assistance, and set the stage for significant expansion in the federal government's role.

### **The Stafford Act**

The Disaster Relief Act was amended in 1988 under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), which granted statutory authority for most federal disaster response activities, particularly as they relate to FEMA. Congress' intention was to encourage states and localities to develop comprehensive disaster preparedness plans, prepare for better intergovernmental coordination in the face of a disaster, encourage the use of insurance coverage, and provide federal assistance programs for losses due to a disaster.<sup>119</sup> The Stafford Act was designed to provide a means by which the federal government may supplement state and local resources in major disasters or emergencies where those state and local resources have been overwhelmed.

Table A.1: Overview of Federal Disaster Legislation, 1950-2000

Year	Federal Disaster Legislation	Purpose
1950	Disaster Relief Act of 1950 (PL 81-875)	Created a permanent relief fund; Authorized federal funding for <i>repair of local government</i> facilities
1951	Amendment to Disaster Relief Act of 1950 (PL 82-107)	Authorized federal emergency housing
1953	Amendment to Disaster Relief Act of 1950 (PL 83-134)	Permitted donation of federal surplus property to state and local governments for distribution to <i>individuals</i>
1962	Amendment to Disaster Relief Act of 1950 (PL 87-502)	Extended federal assistance eligibility to state facilities in addition to U.S. territories
1966	Disaster Relief Act (PL 89-769)	Extended federal assistance eligibility to rural communities, unincorporated towns and villages; Federal funding for damage to higher-education facilities
1968	National Flood Insurance Act (PL 90-448)	Provided for federally subsidized insurance along with federal reinsurance provisions
1969	Disaster Relief Act (PL 91-79)	Limited to 15 months: Funding for debris removal from private property; Distribution of food coupons; Unemployment benefits for disaster victims; SBA, FHA, VA loan revisions
1970	Disaster Assistance Act (PL 91-606)	Provided grants to individuals for temporary housing and relocation Funding for legal services Community payments for tax losses *Authorized <i>replacement</i> of damaged facilities instead of just repair*
1974	Disaster Relief Act of 1974 (PL 93-288)	First explicit requirement for mitigation strategies to receive federal funding
1988	Stafford Act (PL 100-707)	Integrated emergency management – flooding to nuclear attack Constituted principal federal authority for providing disaster relief
2000	Disaster Mitigation Act of 2000 (PL 106-390)	Makes mitigation planning a requirement to receive disaster assistance

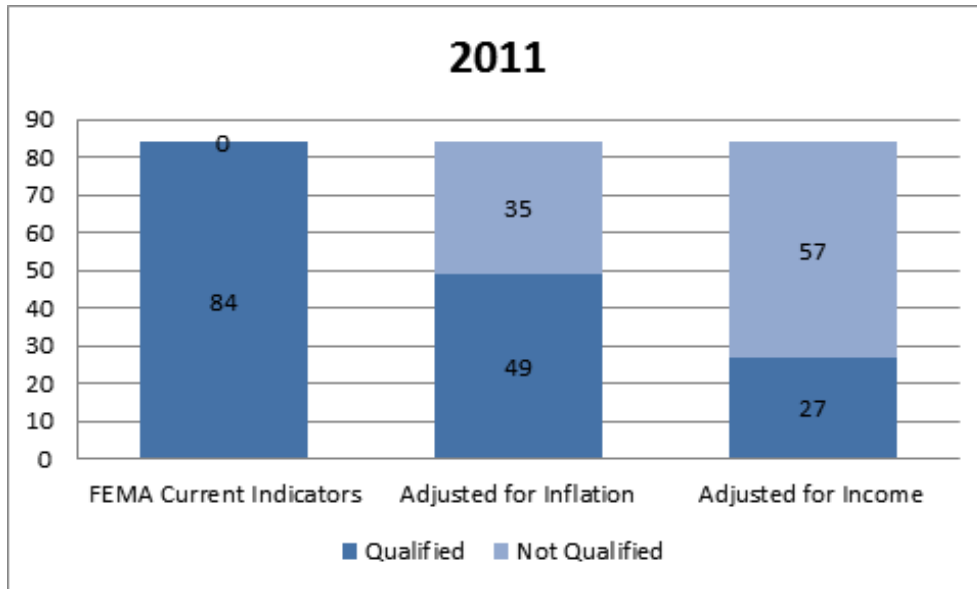
Source: Adapted from: Office of Emergency Preparedness (1972, Vol. 1, table 1) FEMA Disaster Legislation

## Appendix B

### Adjustments to Per Capita Damage Indicator By Year (2011 – 2012)

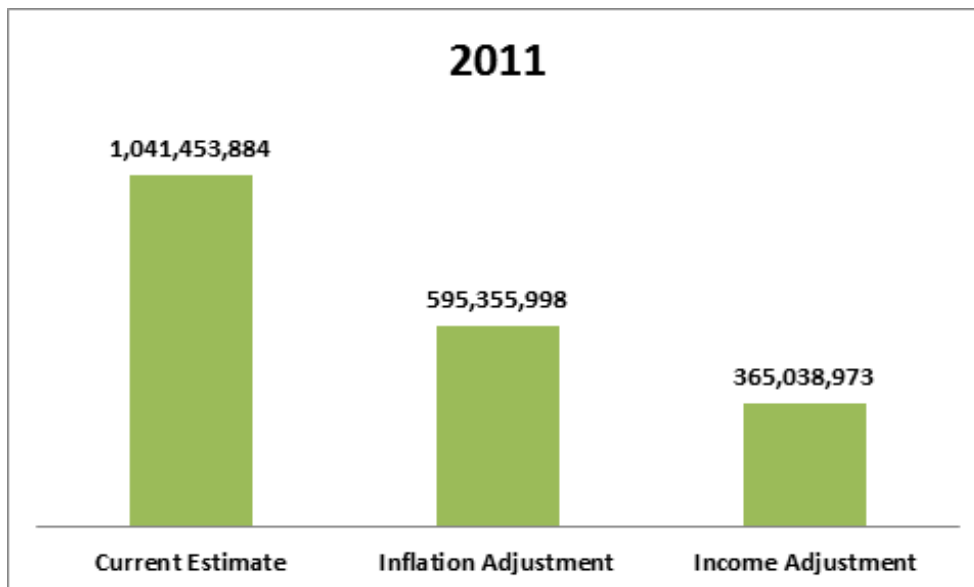
For the disaster declarations reviewed in this report, had FEMA updated their per capita damage indicator for inflation since 1986 in 2011, there would have been thirty-five fewer disasters, costing approximately \$446 million less in federal disaster costs. If the per capita damage indicator were updated for inflation in income, there would have been fifty-seven fewer disasters declared and a cost savings of roughly \$676 million (Table B.1 and B.2). There was no difference in population adjustment.

**Table B.1: Number of Disaster Declarations Based Upon Adjustments for Inflation and Income**



Source: Analysis of available FEMA Preliminary Damage Estimates for 2012, <http://www.fema.gov/preliminary-damage-assessment-reports#6>

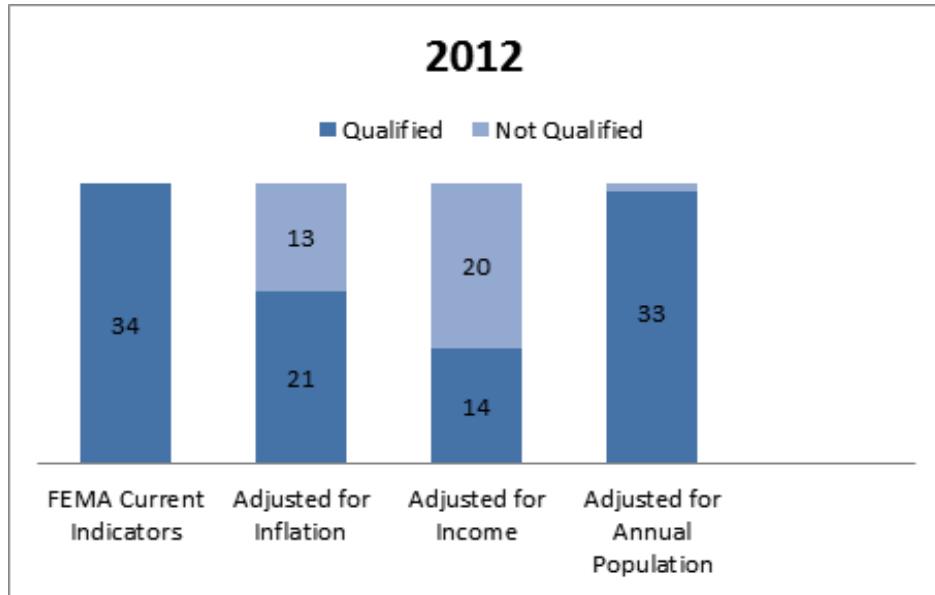
**Table B.2: Cost of Disaster Declaration Estimates Based on Savings from Adjustments in Inflation and Income (2011)**



Source: Analysis of available FEMA Preliminary Damage Estimates for 2012, <http://www.fema.gov/preliminary-damage-assessment-reports#6>

In 2012, there would have been thirteen fewer disasters, costing roughly \$102 million less in federal disaster costs. If the per capita damage indicator were updated for inflation in income, there would have been twenty fewer disasters declared and a cost savings of roughly \$203 million. One disaster would not have qualified if FEMA used the most recent Census data (Table B.3 and B.4).

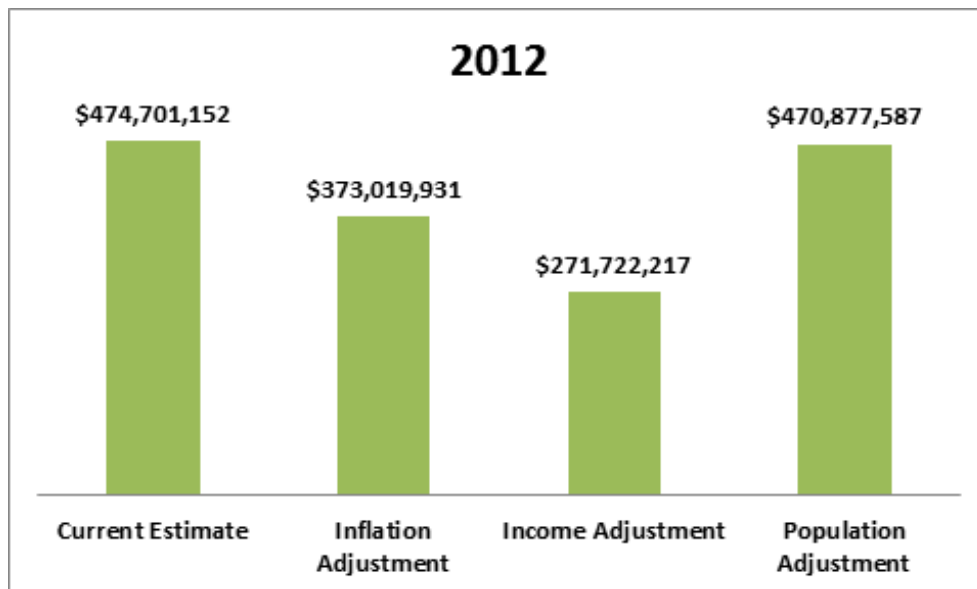
**Table B.3: Number of Disaster Declarations Based Upon Adjustments for Inflation, Income and Population (2012)**



**Source:** Analysis of available FEMA Preliminary Damage Estimates for 2012, <http://www.fema.gov/preliminary-damage-assessment-reports#6>

**Note:** There were 47 disaster declarations in 2012, but only 34 were available on FEMA's website at the time of this report.

**Table B.3: Number of Disaster Declarations Based Upon Adjustments for Inflation, Income and Population (2012)**

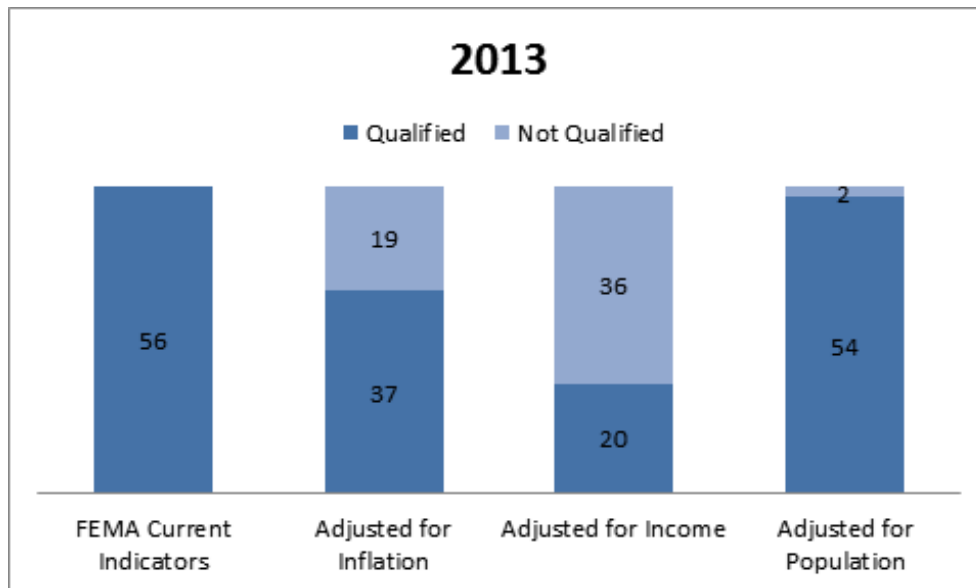


**Source:** Analysis of available FEMA Preliminary Damage Estimates for 2012, <http://www.fema.gov/preliminary-damage-assessment-reports#6>

**Note:** There were 47 disaster declarations in 2012, but only 34 were available on FEMA's website. Additionally, these dollar amounts are Preliminary Damage Assessment estimates and numbers may change during the rebuilding/close out process. The scope of this report was solely PDA estimates.

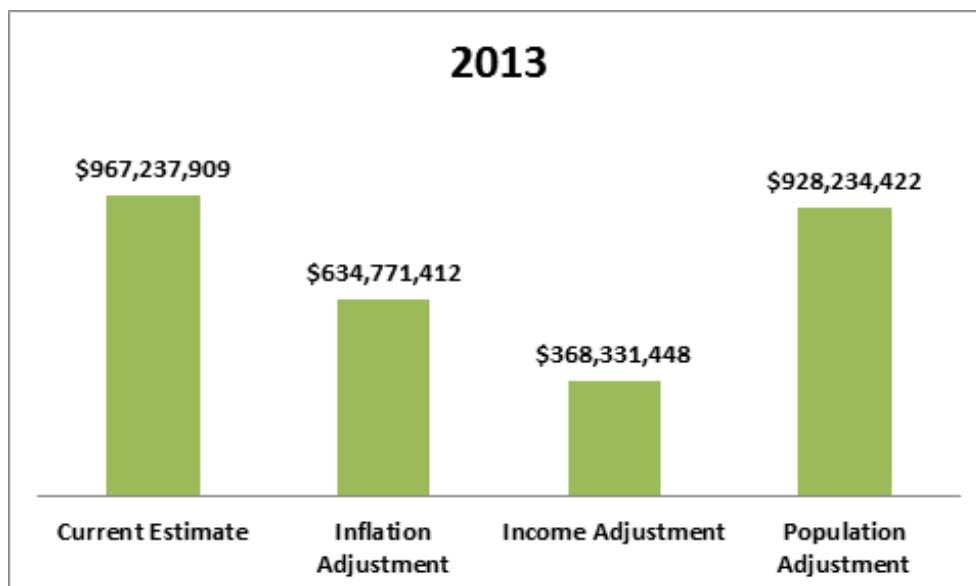
For the disaster declarations reviewed in this report, had FEMA updated their per capita damage indicator for inflation since 1986 in 2013, there would have been nineteen fewer disasters, costing roughly \$332.5 million less in federal disaster costs. If the per capita damage indicator were updated for inflation in income, there would have been thirty-six fewer disasters declared and a cost savings of roughly \$599 million (Table B.5 and B.6).

**Table B.5: Number of Disaster Declarations Based Upon Adjustments for Inflation, Income and Population (2013)**



Source: Analysis of available FEMA Preliminary Damage Estimates for 2012, <http://www.fema.gov/preliminary-damage-assessment-reports#6>

**Table B.6: Cost of Disaster Declaration Estimates Based on Savings from Adjustments in Inflation, Income and Population (2013)**



Source: Analysis of available FEMA Preliminary Damage Estimates for 2012, <http://www.fema.gov/preliminary-damage-assessment-reports#6>

# Appendix C

## TOTAL TAXABLE RESOURCES

**Table 2**  
*Dollars Per Capita*

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Alabama	29,956	30,852	32,058	34,951	37,340	39,346	41,016	41,253	38,626	39,917	41,552
Alaska	45,343	46,236	49,030	53,871	58,830	64,719	69,199	75,686	66,149	68,596	72,959
Arizona	35,417	35,788	37,513	39,701	43,720	46,899	48,458	46,904	41,986	41,892	43,312
Arkansas	29,245	30,151	31,481	33,714	35,671	37,698	39,897	40,522	38,500	39,526	41,032
California	42,121	42,501	44,454	48,111	52,288	56,078	58,704	57,361	52,382	52,972	54,691
Colorado	44,609	44,817	45,742	48,306	52,169	55,489	58,277	57,775	53,229	54,552	56,587
Connecticut	57,855	56,249	57,872	63,201	66,992	73,117	79,482	75,621	70,790	73,444	75,115
Delaware	68,571	68,002	63,978	68,007	72,185	73,926	77,667	73,840	73,874	76,005	77,912
District of Columbia	62,291	65,240	70,409	77,478	83,802	90,007	97,254	98,952	95,351	99,163	101,886
Florida	36,945	37,850	39,647	43,430	47,896	50,969	52,957	50,855	45,146	45,879	47,211
Georgia	39,118	39,311	40,214	42,015	44,587	46,316	47,990	46,777	43,752	44,279	45,864
Hawaii	37,631	38,563	40,993	44,445	48,352	51,793	54,461	54,466	51,450	52,386	54,473
Idaho	31,032	31,455	32,665	36,222	39,760	41,155	42,901	41,857	38,872	39,248	40,398
Illinois	43,226	43,693	45,315	48,067	50,438	54,179	57,695	56,452	53,129	54,576	57,080
Indiana	36,480	37,553	39,195	41,119	42,433	44,330	46,740	45,671	43,014	45,665	48,120
Iowa	36,116	37,605	39,426	43,370	44,867	46,849	50,878	50,314	48,789	49,772	52,632
Kansas	37,939	38,507	40,195	41,525	43,904	47,431	51,381	52,251	48,918	50,328	53,573
Kentucky	31,968	32,708	33,561	35,149	36,999	39,217	40,479	40,509	38,660	40,555	42,413
Louisiana	32,290	32,566	35,781	39,194	45,504	51,208	50,953	51,943	48,397	52,332	55,161
Maine	33,657	34,687	35,740	38,144	39,242	41,824	43,222	42,643	41,583	43,028	44,409
Maryland	45,413	46,747	48,499	52,157	55,547	58,774	62,043	62,053	60,395	61,996	64,333
Massachusetts	49,588	49,455	51,235	53,925	57,126	61,085	64,696	63,532	60,212	63,298	65,681
Michigan	36,401	37,593	38,744	39,367	40,749	41,495	43,478	41,337	38,298	40,305	42,620
Minnesota	42,676	43,593	45,765	48,875	51,264	53,148	55,187	55,474	52,322	54,517	56,831
Mississippi	26,962	27,425	28,815	30,050	31,969	34,358	36,551	37,424	35,314	36,248	37,253
Missouri	36,761	37,564	38,892	40,522	41,959	43,846	45,948	46,793	44,066	45,147	46,660
Montana	29,212	29,704	32,028	34,560	37,288	40,337	43,586	43,349	40,225	41,332	43,975
Nebraska	38,624	39,174	41,880	43,907	45,716	48,624	52,781	53,503	51,640	54,261	57,169
Nevada	42,534	42,727	45,070	50,931	56,412	58,442	60,622	57,015	50,385	51,356	52,823
New Hampshire	44,314	44,769	46,119	48,714	50,882	53,825	56,724	55,815	53,624	56,253	58,454
New Jersey	51,549	51,889	53,607	56,660	59,716	64,334	68,306	68,174	63,723	64,972	67,144
New Mexico	31,891	31,484	33,287	36,640	38,716	40,702	42,392	42,673	39,729	40,626	41,553
New York	47,240	46,785	48,133	51,773	56,784	62,063	66,580	64,159	61,191	64,292	66,628
North Carolina	38,058	38,615	39,374	41,247	44,356	46,666	48,489	48,015	45,994	47,037	48,156
North Dakota	33,239	35,099	37,977	39,454	41,783	44,625	49,288	54,115	52,125	56,576	62,967
Ohio	37,024	38,183	39,077	40,891	42,611	44,102	45,977	45,015	42,477	43,829	46,465
Oklahoma	31,236	31,311	32,942	35,554	38,411	42,303	44,992	47,493	42,361	43,457	45,895
Oregon	36,085	37,419	38,864	42,874	44,802	49,597	51,567	52,241	49,012	51,164	53,245
Pennsylvania	37,465	38,584	40,024	41,912	44,032	46,876	49,744	49,823	47,524	48,969	51,216
Rhode Island	40,489	42,280	44,801	47,476	49,187	52,536	54,740	53,668	51,988	53,322	55,546
South Carolina	32,693	33,286	34,421	35,577	37,568	39,501	41,464	40,205	38,108	38,516	40,238
South Dakota	37,871	40,676	42,529	45,249	46,945	48,725	52,316	54,790	51,506	52,973	57,658
Tennessee	34,644	35,513	36,606	38,826	40,706	42,891	44,100	43,885	42,151	43,065	44,813
Texas	38,030	37,939	39,481	42,845	45,992	49,533	53,075	54,429	48,846	51,719	55,239
Utah	33,787	34,100	35,073	36,885	40,470	43,988	46,870	46,971	44,045	45,142	47,020
Vermont	35,395	36,261	37,742	40,591	42,300	45,194	46,934	46,512	44,587	46,724	48,808
Virginia	44,480	45,548	47,610	50,677	54,571	57,564	59,989	59,560	57,322	59,417	61,187
Washington	42,002	42,443	44,069	47,179	50,436	54,284	58,991	58,128	54,095	54,937	57,181
West Virginia	27,917	28,997	29,611	30,952	32,928	35,165	36,720	37,267	37,046	38,424	40,677
Wisconsin	37,939	38,763	40,033	42,141	44,106	46,802	48,554	47,634	45,936	47,253	49,198
Wyoming	44,078	44,264	45,261	53,599	61,152	71,426	76,382	81,831	66,555	71,989	74,574
<b>United States</b>	<b>39,788</b>	<b>40,316</b>	<b>41,878</b>	<b>44,692</b>	<b>47,802</b>	<b>50,958</b>	<b>53,647</b>	<b>52,960</b>	<b>49,425</b>	<b>51,001</b>	<b>53,114</b>

Data Sources: Bureau of Economic Analysis (BEA), Department of Commerce, Internal Revenue Service.

For details about the methodology for estimating TTR, please visit <http://www.treasury.gov/resource-center/economic-policy/total-taxable-resources/Pages/Total-Taxable-Resources.aspx>.

Please direct questions or comments regarding TTR to the Treasury Department at (202) 622-2200.

# ENDNOTES

<sup>1</sup> USA Today, “One Year After Sandy, 9 Devastating Facts,” October 29, 2013; <http://www.usatoday.com/story/news/nation/2013/10/29/sandy-anniversary-facts-devastation/3305985/>, accessed June 10, 2014

<sup>2</sup> Federal Emergency Management Agency, “Disaster Assistance Tops \$110 Million One Year After Oklahoma May Tornadoes,” May 16, 2014; <http://www.fema.gov/news-release/2014/05/16/disaster-assistance-tops-110-million-one-year-after-oklahoma-may-tornadoes>, accessed May 30, 2014

<sup>3</sup> For the purposes of this report, “disaster” and “major disaster” are interchangeable.

<sup>4</sup> National Weather Service, “December 5-6, 2013 Winter Storm and Ice Storm Event,” December 6, 2013; [http://www.srh.noaa.gov/tsa/?n=weather-event\\_2013dec05](http://www.srh.noaa.gov/tsa/?n=weather-event_2013dec05)

<sup>5</sup> “Oklahoma – Severe Winter Storm,” Federal Emergency Management Agency, January 30, 2014; <http://www.fema.gov/media-library-data/1393619267269-e777eab6d237c9da9fce6405e2c9107a/PDA+Report+FEMA-4164-DR-OK.pdf>, accessed May 30, 2014. To date, Oklahoma has only obligated \$11,000 for the recovery.

<sup>6</sup> National Weather Service, “January 5 Heavy Snow and Subsequent Cold Spell,” January 5, 2013; <http://www.crh.noaa.gov/ind/?n=jan52014snowandcold>

<sup>7</sup> “FEMA’s Disaster Decisions frustrate state, local leaders,” News and Tribune, April 20, 2014; <http://www.newsandtribune.com/local/x493468835/FEMA-s-disaster-decisions-frustrate-state-local-leaders>, accessed June 4, 2014.

<sup>8</sup> Federal Emergency Management System, “Indiana – Sever Winter Storm and Snow Storm,” April 22, 2014; <http://www.fema.gov/media-library-data/1400685043928-6fb9593e6555cefb9c70aac2ea18c4d0/PDA+Report+FEMA-4173-DR-IN.pdf>, accessed May 30, 2014

<sup>9</sup> 42 U.S. Code § 5170 - Procedure for declaration

<sup>10</sup> This report includes an analysis of 300 major disasters receiving Public Assistance grants that occurred since 2011 which reveals how the Per-Capita Damage Indicator is biased toward smaller states. Based on FEMA’s per capita damage indicator, if all 300 disasters had occurred in Wyoming, the smallest state, 100 percent of them would have received a declaration. But had all of them occurred in California, only 6 percent of these disasters would have been declared.

<sup>11</sup> FEMA relies on the latest United States Census decennial data to determine a State’s population. However, the Census publishes annual population estimates by State based on births, deaths and migration to calculate population change since the most recent decennial Census. In 2010, the Census reported Oklahoma’s population as 3,759,263. In 2013, our population grew by roughly 91,000. To put this population growth into FEMA indicator terms, in 2013, Oklahoma could have paid \$125,000 more per disaster before “being overwhelmed.” If FEMA adjusted their population numbers based on the most current annual Census data, from 2008 to 2013, eight disasters likely would not have been declared, saving taxpayers over an estimated \$93.4 million.

<sup>12</sup> “Oklahoma – Severe Storms, Tornadoes, Straight Line Winds, and Flooding,” FEMA, June 14, 2012; [http://www.fema.gov/media-library-data/20130726-1846-25045-1600/dhs\\_ocfo\\_pda\\_report\\_fema\\_4064\\_dr\\_ok.pdf](http://www.fema.gov/media-library-data/20130726-1846-25045-1600/dhs_ocfo_pda_report_fema_4064_dr_ok.pdf), accessed June 3, 2014.

<sup>13</sup> “Oklahoma – Severe Storms, Tornadoes, Straight Line Winds, and Flooding,” FEMA, June 14, 2012; [http://www.fema.gov/media-library-data/20130726-1846-25045-1600/dhs\\_ocfo\\_pda\\_report\\_fema\\_4064\\_dr\\_ok.pdf](http://www.fema.gov/media-library-data/20130726-1846-25045-1600/dhs_ocfo_pda_report_fema_4064_dr_ok.pdf), accessed June 3, 2014, p. 2. Note: Threshold is 2010 statewide population of 3,751,351 multiplied by \$1.35

<sup>14</sup> “Open FEMA Dataset: Public Assistance Funded Projects,” FEMA, April 3, 2014; <https://www.fema.gov/data-feeds/openfema-dataset-public-assistance-funded-projects-details-v1>; accessed May 24, 2014.

<sup>15</sup> Testimony of Former DHS Secretary Janet Napolitano , April 17, 2013; retrieved from: <http://www.cq.com/doc/congressionaltranscripts4258057?jsessionid=D1MNRh1T4YopkfCuHK4qHcqi.undefined?o>

<sup>16</sup> Testimony of FEMA Administrator W. Craig Fugate, March 30, 2013 Senate Homeland Security and Governmental

Affairs Committee Hearing on Superstorm Sandy Recovery and Mitigation; retrieved from: <http://www.cq.com/doc/congressionaltranscripts-4243264?3>

<sup>17</sup> 42 U.S.C. § 5170. In addition to major disaster declarations, the President may issue emergency declarations. If the President declares an emergency, the federal government may provide immediate and short-term assistance that is necessary to save lives, protect property and public health and safety, or lessen or avert the threat of a catastrophe. 42 U.S.C. § 5192. Federal assistance may not exceed \$5 million under an emergency declaration unless continued emergency assistance is immediately required; there is a continuing and immediate risk to lives, property, public health or safety; and necessary assistance will not otherwise be provided on a timely basis. 42 U.S.C. § 5193.

<sup>18</sup> "Statement About the Disaster Relief Act of 1974," Richard M. Nixon, May 22, 1974; <http://www.presidency.ucsb.edu/ws/index.php?pid=4218>, accessed May 24, 2014.

<sup>19</sup> Federal Emergency Management Agency, "FEMA Disaster Search Database" <http://www.fema.gov/disasters/grid/year>; accessed April 24, 2014

<sup>20</sup> Reorganization Plan No. 3 of 1978, Hearings Before the Subcommittee on Government Operations House of Representatives, Jun 26, and 29th, 1978, p. 9; <http://www.gpo.gov/fdsys/pkg/USCODE-2010-title5/pdf/USCODE-2010-title5-app-reorganiz-other-dup101.pdf>; accessed on April 28, 2014

<sup>21</sup> Reorganization Plan No. 3 of 1978, Hearings Before the Subcommittee on Government Operations House of Representatives, Jun 26, and 29th, 1978, p. 9; <http://www.gpo.gov/fdsys/pkg/USCODE-2010-title5/pdf/USCODE-2010-title5-app-reorganiz-other-dup101.pdf>; accessed on April 28, 2014

<sup>22</sup> Constant 2014 dollars; Federal disaster assistance: Report of the Senate Task Force on Funding Disaster Relief. 1995. Washington, DC. Government Printing Office.

<sup>23</sup> "FEMA's Disaster Relief Fund: Overview and Selected Issues," Congressional Research Service, May 7, 2014; <http://www.fas.org/sgp/crs/homesecc/R43537.pdf>, accessed June 2, 2014.

<sup>24</sup> The majority of federal disaster recovery assistance for state and local governments following a major disaster declaration comes from FEMA's Disaster Relief Fund (DRF). The growing number of disaster declarations has put an increasing strain on the DRF, so much so that it has become common practice for Congress to look for supplemental funding for disaster relief in order to provide the funding necessary for states to recover from large-scale incidents such as Hurricane Sandy. "Disaster Relief Funding and Emergency Supplemental Appropriations," Congressional Research Service, April 12, 2011, <http://www.fas.org/sgp/crs/misc/R40708.pdf>, accessed May 30, 2014.

<sup>25</sup> 42 U.S. Code § 5121 - Congressional findings and declarations

<sup>26</sup> Or acting governor, in his or her absence

<sup>27</sup> 44 U.S.C. § 206.2

<sup>28</sup> 44 U.S.C. § 206.2

<sup>29</sup> 42 U.S.C. 5187

<sup>30</sup> The mission of the Federal Emergency Management Agency's (FEMA) Public Assistance (PA) Grant Program is to provide assistance to State, Tribal and local governments, and certain types of Private Nonprofit organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the President. Through the PA Program, FEMA provides supplemental Federal disaster grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain Private Non-Profit (PNP) organizations. The PA Program also encourages protection of these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process. (Source: <http://www.fema.gov/public-assistance-local-state-tribal-and-non-profit>)

<sup>31</sup> 44 U.S.C. §206.35

<sup>32</sup> 42 U.S.C. 5122, (1)

<sup>33</sup> There is a difference in what programs are available in an emergency declaration versus a major disaster declaration. The Stafford Act describes the types of assistance available in an emergency, including debris removal, emergency response costs, and the Individual Assistance programs authorized by section 408 of the Stafford Act (i.e. housing assistance and the "other needs" program). In an emergency declaration, there is no assistance for permanent repair or replacement of public or private non-profit infrastructure or hazard mitigation under the Hazard Mitigation Grant Program. In addition, Individual Assistance



programs authorized outside of section 408 of the Stafford Act (e.g. crisis counseling and disaster legal services) are unavailable. Emergencies and Major Disaster Declarations under the Stafford Act have one main similarity – they are declared when the resources of the local government and the State cannot adequately respond themselves. However, the law does not offer a distinction between a tornado in Oklahoma and a hurricane the magnitude of Katrina as both were declared major disasters.

<sup>34</sup> Federal regulations outline the procedures FEMA must follow to carry out their duties specified in the Stafford Act. Title 44 (44 CFR, Section 206

<sup>35</sup> 44 CFR, Section 206.33

<sup>36</sup> “Improved Criteria Needed to Assess Jurisdictions Capability to Respond and Recover on Its Own,” U.S. Government Accountability Office, September, 2012, GAO-12-838, p. 24; <http://www.gao.gov/assets/650/648162.pdf>, accessed April 24, 2014.

<sup>37</sup> 44 CFR, Section 206.33

<sup>38</sup> Based on the latest Census, in the case of this report, the 2010

<sup>39</sup> 51 Fed. Reg. 13,332 (Apr. 18, 1986)

<sup>40</sup> “Opportunities to Improve FEMA’s Public Assistance Preliminary Damage Assessment Process,” DHS Office of Inspector General, May 2012, [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014.

<sup>41</sup> “CPI Inflation Calculator,” <http://data.bls.gov/cgi-bin/cpicalc.pl>, accessed May 23, 2014.

<sup>42</sup> Federal Emergency Management Agency, “FEMA Disaster Search Database – 2011” <http://www.fema.gov/disasters/grid/year>, accessed April 24, 2014

<sup>43</sup> Federal Emergency Management Agency, “FEMA Disaster Search Database” <http://www.fema.gov/disasters/grid/year>, accessed April 24, 2014

<sup>44</sup> “Improved Criteria Needed to Assess Jurisdictions Capability to Respond and Recover on Its Own,” U.S. Government Accountability Office, September, 2012, GAO-12-838, p. 24; <http://www.gao.gov/assets/650/648162.pdf>, accessed April 24, 2014.

<sup>45</sup> “Improved Criteria Needed to Assess Jurisdictions Capability to Respond and Recover on Its Own,” U.S. Government Accountability Office, September, 2012, GAO-12-838, p. 24; <http://www.gao.gov/assets/650/648162.pdf>, accessed April 24, 2014.

<sup>46</sup> “Improved Criteria Needed to Assess Jurisdictions Capability to Respond and Recover on Its Own,” U.S. Government Accountability Office, September, 2012, GAO-12-838, p. 24; <http://www.gao.gov/assets/650/648162.pdf>, accessed April 24, 2014.

<sup>47</sup> 42 U.S. Code § 5170 - Procedure for declaration

<sup>48</sup> *Ibid.*, p. 4

<sup>49</sup> “State and Local Tax Policy: What Are Rainy Day Funds and How Do They Work?” Tax Policy Center, August 12, 2009; <http://www.taxpolicycenter.org/briefing-book/state-local/fiscal/rainy-day.cfm>, accessed May 30, 2014.

<sup>50</sup> “The Fiscal Survey of States,” National Association of State Budget Officers, Fall 2013; <https://www.nasbo.org/sites/default/files/NASBO%20Fall%202013%20Fiscal%20Survey%20of%20States.pdf>, p. 57, accessed May 29, 2014.

<sup>51</sup> “The Fiscal Survey of States,” National Association of State Budget Officers, Fall 2013; <https://www.nasbo.org/sites/default/files/NASBO%20Fall%202013%20Fiscal%20Survey%20of%20States.pdf>, p. 57, accessed May 29, 2014.

<sup>52</sup> “The Fiscal Survey of States,” National Association of State Budget Officers, Fall 2013; <https://www.nasbo.org/sites/default/files/NASBO%20Fall%202013%20Fiscal%20Survey%20of%20States.pdf>, p. 57, accessed May 29, 2014.

<sup>53</sup> “Opportunities to Improve FEMA’s Public Assistance Preliminary Damage Assessment Process,” DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014

<sup>54</sup> “Opportunities to Improve FEMA’s Public Assistance Preliminary Damage Assessment Process,” DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014

<sup>55</sup> Our analysis included FEMA’s projected obligations as of May 10, 2014 for only those 300 disaster declarations that had received PA and had been declared during fiscal years 2011 and 2012. We did not analyze disaster declarations that received Individual Assistance only and only included the Public Assistance estimates. According to GAO, using projected obligations

would be more accurate than using PDA damage estimates for public assistance. Therefore, it was concluded that projected obligations were the best source for actual disaster recovery costs.

FEMA's initial deadlines for completing disaster work are as follows: Debris Removal – 6 months; Emergency Protective Measures – 6 months; Permanent Repair Work – 18 months; with time extensions granted under extenuating circumstances. Due to these deadlines, we focused our review on the years 2011 and 2012, to allow for work completion. Source: "Public Assistance: Frequently Asked Questions," FEMA, February 28, 2014; <http://www.fema.gov/public-assistance-frequently-asked-questions#Q58>, accessed May 14, 2014.

<sup>56</sup> Appendix C

<sup>57</sup> "District Rainy Day Fund Reaches Record High," NBC Washington, January 31, 2014; <http://www.nbcwashington.com/news/local/District-Rainy-Day-Fund-Reaches-Record-High-242949931.html>, accessed May 30, 2014.

<sup>58</sup> "Opportunities to Improve FEMA's Public Assistance Preliminary Damage Assessment Process," DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014

<sup>59</sup> The DHS-OIG was basing their 1983 assumption on a proposed rule that did not pass where the \$1 was tied to the national per capita income of 1983

<sup>60</sup> "Opportunities to Improve FEMA's Public Assistance Preliminary Damage Assessment Process," DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014, p. 7

<sup>61</sup> The DHS-OIG report did not recommend FEMA retroactively apply an adjustment, but used the figures to point out the per capita damage indicator is too low contributing to more declarations; "Opportunities to Improve FEMA's Public Assistance Preliminary Damage Assessment Process," DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014., pdf p. 18 of 22

<sup>62</sup> "Opportunities to Improve FEMA's Public Assistance Preliminary Damage Assessment Process," DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014, p. 8

<sup>63</sup> "Opportunities to Improve FEMA's Public Assistance Preliminary Damage Assessment Process," DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014, pdf p. 18 of 22

<sup>64</sup> "Opportunities to Improve FEMA's Public Assistance Preliminary Damage Assessment Process," DHS Office of Inspector General, May 2012; [http://www.oig.dhs.gov/assets/Mgmt/2012/OIG\\_12-79\\_May12.pdf](http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-79_May12.pdf), accessed April 24, 2014.

<sup>65</sup> Testimony of FEMA Administrator W. Craig Fugate, March 30, 2013 Senate Homeland Security and Governmental Affairs Committee Hearing on Superstorm Sandy Recovery and Mitigation; retrieved from: <http://www.cq.com/doc/congressionaltranscripts-4243264?3>

<sup>66</sup> "FEMA Denies 15 North Texas Counties Disaster Assistance for the Second Time," KXII, April 24, 2014; <http://www.kxii.com/news/headlines/FEMA-denies-15-North-Texas-counties-disaster-assistance-for-the-second-time-256098441.html>, accessed April 24, 2014.

<sup>67</sup> "Oklahoma – Sever Winter Storm," FEMA.gov, January 30, 2014; <http://www.fema.gov/media-library-data/1393619267269-e777eab6d237c9da9fce6405e2c9107a/PDA+Report+FEMA-4164-DR-OK.pdf>, accessed April 24, 2014, p. 2.

<sup>68</sup> "Texas Severe Winter Storm – Denial of Appeal," FEMA, April 15, 2014; <http://www.fema.gov/media-library/assets/documents/95015>, accessed on June 9, 2014.

<sup>69</sup> "Washington, DC to Mineral, Virginia," Map. *Google Maps*. Google, May 14, 2014; <https://www.google.com/maps/dir/Washington,+DC/Mineral,+VA+23117/@38.4603916,-77.7963638,10z/data=!3m1!4b1!4m12!1m5!1m1!1sox89b7c6de5af6e45b:0xc2524522d4885d2a!2m2!1d-77.0364641!2d38.9072309!1m5!1m1!1sox89b1544b179f4b07:0x74d81fb8b17ecc47!2m2!1d-77.9086068!2d38.010695>

<sup>70</sup> "Virginia 2011 Earthquake: DC Damage, Recovery Following 5.8 Magnitude Temblor," Huffington Post, August 22, 2012; [http://www.huffingtonpost.com/2012/08/22/virginia-2011-earthquake-\\_n\\_1822965.html](http://www.huffingtonpost.com/2012/08/22/virginia-2011-earthquake-_n_1822965.html), accessed May 14, 2014.

<sup>71</sup> "District of Columbia – Earthquake," FEMA, November 8, 2011; <http://www.fema.gov/pdf/news/pda/4044.pdf>, accessed May 14, 2014.

<sup>72</sup> "Top Earthquake States," U.S. Geological Survey, January, 2014; [http://earthquake.usgs.gov/earthquakes/states/top\\_states.php](http://earthquake.usgs.gov/earthquakes/states/top_states.php), accessed May 14, 2014.

<sup>73</sup> "Delaware Requests Disaster Designations for Hurricane Irene Damage," governor.delaware, September 26, 2011; <https://governor.delaware.gov/news/2011/1109september/20110926-disaster-designations-requests.shtml>, accessed April 24, 2014.

<sup>74</sup> Ibid.

<sup>75</sup> "Delaware – Hurricane Irene" FEMA, September 30, 2011, <http://www.fema.gov/pdf/news/pda/4037.pdf>; accessed May 14, 2014.

<sup>76</sup> "Hurricane Irene: Delaware Spared Severe Damage As Cleanup Begins," International Business Times, August 29, 2011; <http://www.ibtimes.com/hurricane-irene-delaware-spared-severe-damage-cleanup-begins-306164>, accessed May 14, 2014.

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<sup>78</sup> "Oklahoma – Severe Storms, Tornadoes, Straight-Line Winds and Flooding," FEMA, June 14, 2012; [http://www.fema.gov/media-library-data/20130726-1846-25045-1600/dhs\\_ocfo\\_pda\\_report\\_fema\\_4064\\_dr\\_ok.pdf](http://www.fema.gov/media-library-data/20130726-1846-25045-1600/dhs_ocfo_pda_report_fema_4064_dr_ok.pdf), accessed May 14, 2014.

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