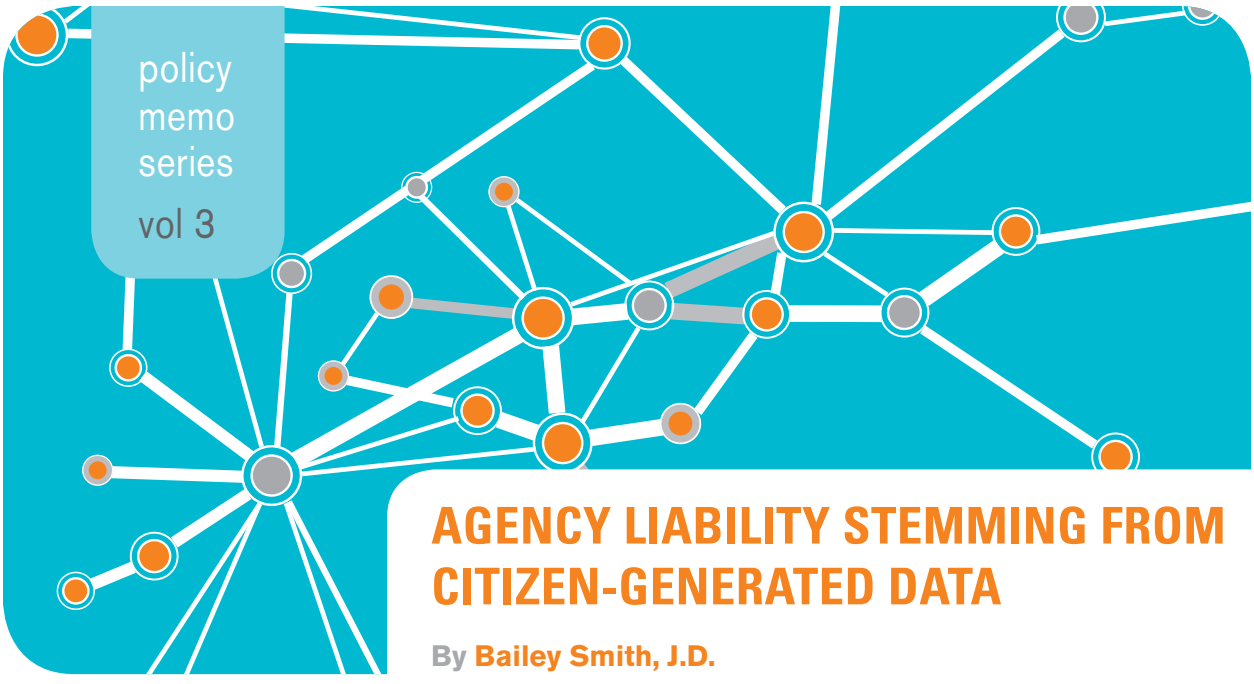

AGENCY LIABILITY STEMMING FROM CITIZEN-GENERATED DATA

By **Bailey Smith, J.D.**

Disclaimer: This is a working paper to be submitted for peer review. This report should not be construed as legal advice. Groups should consult with counsel prior to adopting any of the strategies identified in this report.

New ways to gather data are on the rise. One of these ways is through citizen science. While citizen science can be defined broadly, this article defines citizen science as the voluntary participation of members of the public in scientific research, including but not limited to data collection and analysis, and problem solving. Agencies can feel confident about using citizen science for a few reasons. First, the legal system provides significant protection from liability through the Federal Torts Claim Act (FTCA) and Administrative Procedures Act (APA). Second, training and technological innovation has made it easier for the non-scientist to collect high quality data.

Consider the following an example of a citizen science success story. The S.S. Cosco Busan, an oil tanker, crashes into the Bay Bridge as it sails out of San Francisco. The wreck leaves the Bay churning with 58,000 barrels of oil. Wildlife perishes by the thousands, one of hundreds of pollution cases that occur annually.[1] Farallones National Marine Sanctuary, under the National Oceanic and Atmospheric Administration (NOAA), volunteers in the program "Beach Watch" to monitor beached marine birds and mammals, providing a baseline against which spill effects can be assessed. A group of citizen scientists volunteer through this organization and form the Beach Watch team. The data collected after this particular oil spill was used as evidence in court to help decide monetary damages.[2] It is becoming increasingly common for citizen science generated information to be seen in courts for applications such as this. However, the real question is how far can the use of citizen science data be taken before courts will call it into question, and how can agencies avoid liability that may arise with citizen generated data? In short, how can the usefulness of citizen science be maximized without jeopardizing agency integrity. The answer can be found in the laws as well as in technological innovation. To start with laws, it first matters the type of agency that is using the data.

There are two kinds of federal agencies: regulatory

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and non-regulatory. A regulatory agency, such as the Environmental Protection Agency (EPA), faces different liabilities than a non-regulatory agency, such as the United States Geological Survey (USGS), which solely disseminates information to the public and does not regulate. However, the F TCA applies to both.

Federal Torts Claim Act

The Federal Torts Claim Act allows tort suits (a civil, non-criminal action)[3] against the federal government. Legitimate claims arise from negligent actions of federal employees acting within the scope of their jobs.[4] There are two major caveats. The first is the discretionary function exception. This bars a claim against the government if the employee was operating under their own discretion. It does not matter whether that discretion was abused.[5] A discretionary act is a course of conduct that is the employee's choice and involves an element of judgment.[6] Additionally, the choice must be the type Congress intended for the exception to shield: The decision must have been made with a policy reason in mind.[7] The court decides if the employee's decision was based on policy.

The second exception is for claims arising from misrepresentation or deceit.[8] The first case to address this topic was *Mid-Central Fish Co. v. United States*. Inaccurate weather data regarding Kansas River flooding was disseminated to the public. The data was relied on by the plaintiff, a farmer, and led to property damage. He claimed the government deceived him, lulling him into a false sense of security. The court concluded that "dissemination of misinformation… is tantamount to misrepresentation and deceit. The Federal Government retains its right of immunity. Misrepresentation…may be defined as the statement made by an employee or officer of the Government that a thing is in fact in a particular way, when it is not so, a false or incorrect statement."[9] A government employee making a statement that is inaccurate or false does not remove the FTCA shield so long as it is in the scope of employment or due care is exercised. The protection still holds. Since the *Mid-Central Fish Co.* case, courts have clarified what is shielded under this exception.

The best way to overcome this shield is to establish that the government owed a duty of care. A duty of care arises when the government knows of an identifiable and discrete class that relies heavily on the information.[10] For example, professional aviators and mariners rely on weather forecasts.[11] Also, an individual that expresses intent to rely on data may establish a duty of care.[12] However, they must distinguish themselves from the general public and make it apparent that the inaccuracy of the information could have dire consequences.[13] These methods, in certain circumstances, may still not break through the FTCA shield because ambiguities in interpretation of the law are to be resolved in favor of the agency.[14]

Regulatory Agency Liability

To hold a regulatory agency liable for poor quality data, the discretionary function exception of the Federal Torts Claim Act must not apply. The claim must arise out of failure to follow a federal statute, regulation, or policy.[15] For instance, a claim might result from the Environmental Protection Agency's Clean Water Act. States are required to collect water quality data and submit it to the EPA. In turn, the EPA must analyze the data and work with the state to improve the water quality.[16] Some states, such as Colorado, use volunteer data aggregated with the information collected by the state.[17] The federal agency is not acting under a discretionary function because there is a policy in place mandating the collection of state data. Discretion means there was a choice, and a policy is not optional. If the information collected has already been integrated into a regulation, then the Administrative Procedure Act (APA) controls.

The APA creates a step by step process for data to be filtered and formed into a suggested rule, which may become a regulation. There is typically a notice and comment period where the public gives their opinion on the proposed regulation. Also, §702 of the APA provides a "right of review." This means, "a person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof."[18] Judicial review will be granted unless precluded by a statute. *Block v. Community Nutrition Institute* establishes that a party has a right to ask for judicial review, but it is not guaranteed that an injured party will get to bring a claim to court. If a statute or legislative history instructs that Congress did not intend to grant judicial review, then that controls and the right does not exist.[19]

However, ambiguity should be construed to allow review.[20] This is what is meant by preclusion by statute. When Congress has left intent for judicial review unclear, it should not be granted when there is no legal standard for the agency action.[21] *Heckler v. Chaney* discusses the commitment to agency discretion exception. The case involved inmates who had been sentenced to death by lethal injection. They petitioned the Food and Drug Administration (FDA) to enforce the Federal Food, Drug, and Cosmetic Act by halting the use of drugs for capital punishment. The FDA refused. This decision was upheld because Congress did not define the limits of agency discretion. Without defined discretion, there is no law to apply against an agency. So, where the intent for judicial review is unclear and no laws limiting discretion have been established, there is no right to review.[22]

The agency may still be liable under the FTCA if the discretionary function exception is inapplicable. In *Springer v. United States*, the Federal Aviation Administration (FAA) failed to notify aviators adequately and completely of weather conditions. A wind shear was apparent to air traffic controllers, but the information was not relayed to the pilot. The poor conditions caused the pilot to lose control, crash, and his estate brought suit for wrongful death.[23] FAA policy was designed to prevent this incident. Thus, employee discretion did not exist, the discretionary exception did not apply, and the FTCA allowed the agency to be held liable.[24] These instances are rare. The discretionary function exception has been interpreted broadly, shielding agencies from a significant amount of liability.

There is much debate about what constitutes a discretionary function. *Dalehite v. United States* divides the exception into planning and operational activities. In this case, a government organized plan for the manufacturing of fertilizer went awry after an explosion occurred. The process was performed using Executive Branch specifications. The court concluded that the purpose of the discretionary exception is to prevent challenging administrative decisions and the subordinates who execute them.[25] These particular decisions were at a policy planning level. Thus, the exception shielded the government from liability. A subsequent case, *Union Trust Co.*, defined an unprotected operational decision. A tower controller cleared two planes to land on the same runway at the same time. This had nothing to do with planning or policy, it was negligence. This type of decision is unprotected and the government is fully liable.[26]

Non-Regulatory Agency Liability

Non-Regulatory agencies have few opportunities for liability related to citizen science. Since they only disseminate data and cannot compel action, liability is only established when there is a duty of care. As discussed previously, this can be done by notifying the agency that their data will be relied upon for safety. An agency also has a duty of due care when specific group of people, such as mariners and aviators, use agency data for their livelihood. Due care is measured by what a reasonable action would have been in the

circumstances.[27] An expert witness may be called to verify if the duty was met.[28] Outside of this, it is unlikely that a non-regulatory agency will find itself in a courtroom for issues involving citizen science.

A Regulatory Hypothetical

Consider a situation with a hydraulic fracturing site. Soon after fracking commences, a citizen's ground water well starts to smell strongly and bubble. A local group of citizens is concerned that methane from the process has contaminated the well. They organize, acquire some minimal training in testing methods, and start to test local wells for methane. They conclude that the wells are contaminated with toxic methane concentrations. Collectively, they notify the state that the EPA should be monitoring fracking pollution and water contamination under the Safe Drinking Water Act. The citizens claim injury because the water is undrinkable. Sixty days (the legal requirement) after notifying the EPA, the energy companies, and the state about the issue, nothing has happened.[29]

The next step for the citizen science group is to file suit. To illustrate the process, we begin with the FTCA. First, did a federal employee act negligently? If so, is there a discretionary function exception or a misrepresentation and deceit exception? There has been no misrepresentation, so the discretionary exception is left. The EPA could be open to liability because this issue revolves around legislative interpretation rather than discretionary choices. However, because this is a legislative issue, the APA must be considered.

Under the APA, a right to review is presumed unless there is statutory preclusion or discretion by law. Congress made the right to review very clear in the Safe Drinking Water Act by incorporating a citizen suit provision: 42 USC § 300j–8 which allows judicial review of the alleged violation. Assume that the suit is brought and that the court finds the EPA has a duty to regulate underground injections including fracking. Can the EPA use the citizen science data in the enforcement action against the energy company? The answer is currently no. The EPA will likely conduct their own scientific testing with their own data quality standards and methodology.[30] This ensures that data is standardized and reliable, and eradicates liability. However, the goal is to make citizen science usable as evidence in the future. It can be done.

Data Integrity in the Courts

Continuing from the fracking hypothetical, what if the EPA does want to use the citizen science generated information in the enforcement action? There are two sets of standards that data must meet to be used. First, it must meet the agency standard set forth by the Office of Management and Budget (OMB). Second, it must meet the evidentiary standard for courts.

The OMB, in 2001, required that all federal agencies promulgate a set of data standards that would ensure and maximize "the quality, objectivity, utility, and integrity of information disseminated by the agency." [31] This is now known as the Data Quality Act. Agencies then were required to issue their own guidelines that would allow an administrative pathway for someone affected by incorrect data to contact the agency and have the problem fixed. The Act also required each agency to form guidelines to ensure that disseminated data would meet the Data Quality Act standard. Finally, all complaints on data accuracy and how the agency handles it are to be submitted periodically to individual agency directors.[32] This is a relatively high standard to meet and demonstrates why agencies are reluctant to use outside sources of data. Beyond dissemination of information, however, is using data in a court.

Currently, the Daubert test sets the federal criteria for the admission of expert testimony as evidence. The Federal Rules of Evidence mandate that trial judges

"must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." Four factors are used to assess scientific evidence: (1) whether the theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer review; (3) the potential or known rate of error; and (4) whether the theory or technique has gained widespread acceptance. The Daubert test stands as a framework for a judge to decide if evidence is credible or not and does not require that evidence meet each numerated standard.[33]

Many citizen science groups may have trouble getting their data up to the standard for court admissibility—it is a very high bar. If an agency intends on using the information in a court, then it is almost essential that training in scientific methods be provided as well as simple, standardized tools. Citizen scientists are generally qualified to observe and collect data with minimal amounts of training. However, setting up appropriate procedures for validation and verification of the citizen scientist generated data may allow for analysis as well. The simpler the data collection process can be made, then the greater the amount of volunteers that can be trained in proper methods. This produces higher quality data and a quality that can be considered useful by federal agencies without breaching the Data Quality Act or being thrown out in court.

Data Integrity Liability for Third Parties

Data quality by agencies in court is not the only application to consider, though. There are instances of faulty data dissemination to third parties by agencies. To further explore how faulty data may create liability, the *Brocklesby* case helps to illustrate.[34] Data was compiled by the Federal Aviation Administration (FAA) to design standard instrument approach procedures for aircraft. Jeppesen, a company that designed aviation charts, used the FAA data to produce instrument approach procedures in graphic form and market to pilots. An aircraft utilizing one of Jeppesen's charts crashed into a mountain because of faulty data that Jeppesen received from the FAA's compilation. Jeppesen was sued for producing a defective product and sought to receive indemnification from the government alleging FAA data caused them to produce the faulty graphic leading to the crash. The court ultimately ruled that there would be no indemnification for procedural reasons, and Jeppesen would be held strictly liable for the defect in its product regardless of the government's role.[35] Even if the "seller has exercised all possible care in the preparation and sale of his product… seller is strictly liable for injuries caused by a defective product even though the defect originated from a component part… by another party."[36] The case makes a very important distinction regarding liability for directly using faulty government data and producing a "product." Jeppesen's charts are held to be more than a mere republication of the government data because the charts produced from that data are distinct products. As the manufacturer of the charts, Jeppesen assumed responsibility for insuring that the charts were accurate.[37] Subsequent to this case, legislation was enacted that gives person(s) that publish an aeronautical chart or map a claim for indemnification against the U.S. government if the data used was promulgated by the FAA, accurately depicted on the chart, and not obviously deficient.[38] This claim remains specific to faulty data promulgated by the FAA for aeronautical charts, though, and has not been broadened to other agencies or types of data.

Winter v. G.P. Putnam's Sons came along slightly later and clarified the term "product."[39] The case deals with a book on how to identify mushrooms. The plaintiffs relied on the book to identify edible species of mushrooms and ended up very ill from eating poisonous mushrooms. They claim strict products liability for the deficiency of the data contained within the book. However, the court distinguishes the publication from a product by saying that the book is "like a book on how to use a compass

or an aeronautical chart. The chart itself is like a physical 'product' while the 'How to Use ' book is pure thought and expression."[40] Ultimately, the plaintiffs lost this case and no strict liability was found.[41]

These two cases illustrate well how data dissemination and use by third parties is viewed by courts. *Brocklesby* involves a federal agency disseminating incorrect data relied upon by a company. The company is still responsible for checking those data before publishing. However, indemnification is allowed in very specific circumstances. The *Winter* case illustrates the very specific definition of what a product is and that items falling outside of the definition of products will not garner liability. Together, these cases show that government liability for faulty data dissemination is a hard case to prove.

The Future of Citizen Science

The information generated by citizens can be very valuable. Training, technology, and sound methodology can be a direct route to gaining legitimacy. River Watch, in Colorado, is additional proof that citizen efforts can be used by agencies in more than just demonstrating the presence of pollution—they can do something to eliminate it. The data collected by River Watch are incorporated in water quality reports to the state and, ultimately, the EPA. Information is attained using sound scientific methods and user friendly technology which all volunteers are trained in using.[42] It is this combination of high quality data and the protection provided by the many layers of the APA and FTCA that should make agencies feel confident about citizen science.

Citizen scientists should strive for and achieve high quality data. Many volunteer programs already offer agency supervised training. As budgets tighten and data deficits grow, agencies will likely expand the incorporation of citizen generated information. Training programs for volunteers could possibly be expanded to ensure continued high quality data at a lesser cost than paying an equal amount of professional scientists. Also, there simply are not enough professional scientists to provide sufficient information to meet growing demands. If agencies can embrace citizen science by investing in and developing it, the future looks bright for both sides.

Legal liability can be a major hurdle for agencies, but using citizen science does not have to equal liability. Precedent has expanded the shield of the Federal Torts Claim Act and the exceptions within, protecting the federal government. The Administrative Procedures Act also limits how and when agencies can be sued. The layers of protection are thick and complex. Data quality can be another liability, though. To decrease the risk of liability here, agencies need only to provide training and simple technology to citizen scientists to maximize usable information and minimize overall costs. As for dissemination to third parties, agencies should be careful so as not to garner liability through indemnification, but the risk is still minimal. With proper planning and training, citizens can collect high-value scientific data that is usable by federal agencies. With a little guidance from agencies to citizen scientists, the potential for mutual benefit is immense.

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