

University at Albany, State University of New York

## Scholars Archive

---

University Libraries Faculty Scholarship

University Libraries

---

3-19-2019

### Food Waste Legislation Scholarship: A Mapping Study

Angela Hackstadt

University at Albany, State University of New York, ahackstadt@albany.edu

The University at Albany community has made this article openly available.

**Please share** how this access benefits you.

Follow this and additional works at: [https://scholarsarchive.library.albany.edu/ulib\\_fac\\_scholar](https://scholarsarchive.library.albany.edu/ulib_fac_scholar)



Part of the [Collection Development and Management Commons](#), [Food and Drug Law Commons](#), [Law Librarianship Commons](#), [Legal Writing and Research Commons](#), and the [Scholarly Communication Commons](#)

---

#### Recommended Citation

Hackstadt, Angela, "Food Waste Legislation Scholarship: A Mapping Study" (2019). *University Libraries Faculty Scholarship*. 113.

[https://scholarsarchive.library.albany.edu/ulib\\_fac\\_scholar/113](https://scholarsarchive.library.albany.edu/ulib_fac_scholar/113)



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](#)

This Report is brought to you for free and open access by the University Libraries at Scholars Archive. It has been accepted for inclusion in University Libraries Faculty Scholarship by an authorized administrator of Scholars Archive.

Please see [Terms of Use](#). For more information, please contact [scholarsarchive@albany.edu](mailto:scholarsarchive@albany.edu).

# Food Waste Legislation Scholarship: A Mapping Study

---

Angela Hackstadt

Subject Librarian for Political Science, Public Policy, Public Administration, and Law  
University at Albany, State University of New York

## Abstract

The purpose of this study is to examine research activity on food waste legislation published in law journals to identify top sources and experts cited by recent scholarship. Searches for "food loss" and "food waste" were conducted in three legal research databases for law journal articles published between January 2013 and January 2018. The core list of selected articles consists of 13 law journal articles. The citations from each of the core articles were collected to form a database, which was analyzed to determine what kinds of resources legal scholars rely on when conducting research in food waste legislation. *Government Sources* and *Primary Law* contribute approximately 48% of the citations in the database. *News*, *Nonprofit*, and *Law Reviews and Journals* contribute approximately 31% of database citations. This study provides some insight into the complexity of food law and the facets of agriculture, industry, and society that affect the success of food waste reduction legislation.

## Keywords

Food Waste; Food Loss; Law; Legislation; Scholarship; Legal Research; Mapping Study

## Contents

Introduction .....	2
Literature Review .....	2
Method .....	6
Results .....	10
Discussion.....	13
Most-Cited Sources .....	13
Potential for Further Study .....	15
Journal Access .....	17
Conclusion.....	17
Acknowledgements.....	18
Appendix A: Core Journal Articles.....	18
Appendix B: Law Journals Cited by Core Articles.....	20
Appendix C: Other Scholarly and Peer Reviewed Journals Cited by Core Articles .....	21
References .....	22

## Introduction

The purpose of this mapping study is to examine research activity on food waste legislation published in law journals in order to identify top sources and experts cited by recent scholarship. Food waste reduction is a timely topic as Americans waste approximately 63 million tons of food annually at a value of around \$218 billion (ReFED, 2016, p. 5). Wasted food causes significant environmental, economic, and social impact in the United States. A review of legal scholarship devoted to food waste is ideal because, while an emerging area of scholarship, it captures the multidisciplinary nature of food law.

## Literature Review

Three topics emerge as the focus of the mapped research and local, state, and federal efforts to curb food waste. These topics are food recovery, environmental impact, and consumer behavior.

These themes frequently overlap. Food recovery is encouraged or incentivized by federal legislation while municipal and state efforts tend to address the environmental impact of food waste. Proposed federal legislation could address some aspects of food waste caused by consumer behavior yet some federal guidelines actually contribute to the problem.

The staggering amount of food wasted in the United States is difficult to reconcile with the fact that millions of Americans are food insecure (E. Friedman, 2017, p. 268; Munger, 2018, p. 69). Several sources identify food recovery as a solution to America's food waste and food insecurity problems. Food recovery refers to collecting wholesome food to distribute to those in need (Haley, 2013). The federal government has made strides to address such issues through legislation, regulations, guidelines, and federal programs that promote food donation and gleaning. Gleaning refers to collecting fresh foods from non-consumer sources, such as farms, retailers, or restaurants to provide food to those in need (USDA, n.d.). Congress passed the Bill Emerson Good Samaritan Food Donation Act (Emerson Act) to encourage the donation of excess wholesome food to organizations serving the food insecure by limiting donor liability (Haley, 2013; Kalashian, 2013, p. 108; Munger, 2018, p. 67; Smith, 2016, p. 657). The Emerson Act limits civil and criminal liability of food donors acting in good faith (Bedard, 2017, p. 293; Haley, 2013; Munger, 2018, p. 65). Traditionally, food safety falls within state jurisdiction (Munger, 2018, p. 79), so critics of the Emerson Act believe a lack of specific preemption language deters potential donors (Munger, 2018, p. 79; Smith, 2016, p. 658). Unfortunately, food donations have not increased since the passage of the Emerson Act (Munger, 2018, p. 66), as businesses either are unaware of the protections offered by the Act (Evans & Nagele, 2017, p. 184; E. Friedman, 2017, p. 208; Haley, 2013; Smith, 2016, p. 657) or still have concerns about liability issues (Munger, 2018, p. 84; Smith, 2016, p. 655). The Internal Revenue Code (IRC)

provides a tax deduction for C-corporations that donate food (Bedard, 2017, p. 292; Evans & Nagele, 2017, p. 185). The Katrina Emergency Tax Relief Act of 2005 extended this tax break to non-C corporations temporarily and Congress has enacted similar temporary tax relief since 2005. Unfortunately, businesses may dispose of food rather than incur the costs associated with donating while they wait for Congress to pass temporary legislation (Bedard, 2017, pp. 292–293). Qualifying businesses do not take advantage of these tax incentives, possibly due to lack of awareness or difficulty in understanding requirements (Evans & Nagele, 2017, p. 185). The U.S. Environmental Protection Agency (EPA) and United States Department of Agriculture (USDA) introduced the Food Recovery Challenge, a joint program with a goal to reduce food waste in the United States by 50% by 2030 (Cronin, 2016; Evans & Nagele, 2017, pp. 182–183; E. Friedman, 2017, p. 279). Critics state the agencies have not clearly articulated how they will accomplish this goal (Cronin, 2016). Furthermore, the program is limited to businesses and organizations and extends benefits that are already available through other federal programs (Evans & Nagele, 2017, p. 183).

Rotting food in landfills creates methane, a greenhouse gas that contributes to climate change (Bedard, 2017, p. 291; E. Friedman, 2017, p. 268; Haley, 2013). Wasted food also wastes the resources spent producing, processing, and transporting the food, such as land, water, labor, pesticides, and fuel (Bedard, 2017, p. 291; E. Friedman, 2017, p. 269; Groszhans, 2016, p. 106; Kessler, 2018, p. 357). Some states have passed legislation to address environmental problems associated with food waste. Massachusetts' commercial food waste ban encourages anaerobic digestion technology, which captures gases released during decomposition to use in an environmentally friendly energy source (Vaz, 2015, pp. 205–206). Seattle, Washington, bans disposal of all food waste (E. Friedman, 2017, p. 281), while other cities opt for educational and

outreach programs to curb retail and restaurant food waste (Groszhans, 2016, p. 112). Critics of food waste bans may take issue with the government's regulation of personal garbage and the costs associated with implementing and enforcing bans (Evans & Nagele, 2017, p. 191; Vaz, 2015, p. 209). Because such bans are relatively new, their effectiveness and true cost are unknown (Vaz, 2015, p. 212).

Misinterpretation of food date labels is a significant contributor to food waste at the consumer level (Bedard, 2017, p. 301; E. Friedman, 2017, p. 272; Kalashian, 2013, p. 109; Kessler, 2018, p. 356; Smith, 2016, p. 659). Manufacturers provide food date labels as a way to inform consumers of a product's peak freshness. Many consumers believe that date labels on food refer to safety, rather than quality (E. Friedman, 2017, p. 274). This confusion leads to an estimated 20% of consumer food waste (Thomson, 2017, p. 154). Food date labels also contribute to a false sense of security in food safety, causing consumers to overlook other safety factors like proper storage and temperature (Kalashian, 2013, p. 110; Thomson, 2017, p. 164). Federal administrative departments have chosen not to regulate food date labels, so there is no uniform date label policy in the United States (Thomson, 2017, p. 148). Forty-one states and the District of Columbia have laws that require dates on some foods but these laws vary widely (Bedard, 2017, p. 297; E. Friedman, 2017, p. 274; Kalashian, 2013, p. 110; Thomson, 2017, p. 150). In the absence of regulations, manufacturers decide what language to use on date labels and how to calculate the dates (Kalashian, 2013, p. 112). Current research advocates for a federal preemptive labeling law (E. Friedman, 2017, p. 289) that utilizes a single, uniform date label that refers only to food safety (Kalashian, 2013, p. 112; Thomson, 2017, p. 144). The Food Date Labeling Act of 2016 (FDLA) was introduced to create a uniform national food date labeling system, to reduce the number of allowable date labels, and to define a specific label that refers to the safety of a

food product (Evans & Nagele, 2017, p. 58; Thomson, 2017, p. 144). FDLA allows for a discretionary freshness or quality date label (Kessler, 2018, p. 360; Thomson, 2017, p. 152) and requires USDA and Health and Human Services (HHS) to provide consumer education and outreach about food date labels (Kessler, 2018, p. 360).

Consumers and retailers often reject imperfect fruits and vegetables, or “ugly produce,” that fall short of aesthetic perfection but are otherwise safe to eat. USDA Grade Standards for produce provide a uniform language to describe the quality of agricultural commodities. The use of USDA Grade Standards is voluntary but some businesses use these as a shorthand for quality and incorporate them into contracts. Research suggests USDA should eliminate cosmetic criteria for produce to reduce food waste at the retail level. Food industry stakeholders may still apply their own criteria in the absence of such guidelines and consumers will still likely opt for aesthetically pleasing produce (Moore, 2017, pp. 510–515).

## Method

For the purposes of this study, the term “food loss” refers to food produced for human consumption that goes uneaten. Food loss may occur at any level of the supply chain and includes losses caused by natural disasters, pests or disease, spillage, overstocking, plate waste, and other factors. “Food waste” refers to food loss that occurs postharvest. For instance, food rejected by retailers because of its imperfect appearance or food discarded by consumers because it is past its sell-by date are both examples of food waste. Food waste, then, is a component of food loss (Buzby, Farah-Wells, & Hyman, 2014, p. iii).

The focus of a mapping study is on linkages, rather than results (Cooper, 2016), to show “how information is disseminated through journals, books, websites, and other channels” (Perryman, 2016). Researchers can use mapping studies to familiarize themselves with a particular area of

study, to inform search strategies, or to support a systematic review (Perryman, 2016). Librarians can use mapping studies to make collection development decisions by identifying where research on a given topic is likely to be published (Cooper, 2016; Perryman, 2016).

The core articles selected for this study represent research in food loss and food waste law in the United States published in law journals between 2013 and 2018 (See Appendix A, below). This study models the Medical Library Association's Nursing and Allied Health Resources Section (NAHRS) protocols for mapping studies (Cooper, 2016). Basic steps of an NAHRS mapping study are to identify a topic; identify top journals in that area of study; record citations in core research within a limited publication period to form a database; then, separate journal citations into three zones by applying Bradford's Law of Scattering. "The Bradford Distribution, or Bradford's Law of Scattering, describes how information on a subject is distributed among the resources where such information may be expected to be found" (Bates, 2002, p. 138). The present study does not apply Bradford's Law to the body of cited law journals. Food loss and food waste law and policy scholarship is too narrow a category to apply Bradford's Law for any meaningful information at this time. "When a small group of originators begins producing small numbers of documents, the absolute size of the domain is so small that while Bradford regions might be present in an incipient form, they are not yet very evident" (Bates, 2002, p. 145). The set of core articles for this study is small but it is worth noting that three core articles (Cronin, 2016; Haley, 2013; Kalashian, 2013) also appear in the database of cited sources. As the body of scholarship in this topic grows, a future mapping study will reveal whether research trends toward publication in topical or general law journals.

Identification of core research for a mapping study is not limited to first identifying journals. For instance, previous mapping studies have identified core literature through database searching



(Correia, Schneider, Fonesca, & Paredes, 2018, p. 135) or by identifying academically productive surgeons (Desai, Veras, & Gosain, 2018, p. 91). The identified topic of food loss and food waste legislation in the United States is a narrow topic within the much broader area of food law, so the procedure used in this mapping study is to identify core research by searching in law journal databases.

Searches for "food loss" and "food waste" were conducted in HeinOnline, Nexis Uni, and Westlaw Campus Research for law journal articles published between January 2013 and January 2018. Duplicate articles from all database searches were eliminated and articles with a foreign or international focus were excluded. The core list of selected articles consists of 13 law journal articles published in eleven law journals. Ten journals are student-led. The sole exception is *Arkansas Law Notes*, an online publication by University of Arkansas School of Law faculty. (See Table 1, below.) Two of the core articles are published in *Natural Resources Journal*; two are published in *Vermont Journal of Environmental Law*. Student authors are responsible for all core articles.

The citations from each of the core articles were collected to form a database. The database was analyzed to determine what kinds of resources legal scholars rely on when conducting research in legislation that addresses food loss or food waste. The database consists of 750 total citations. 747 citations were categorized by type of source. Three citations lack sufficient information and were not categorized. There are 620 unique sources in the database.

**Table 1: Core Journals**

Journal	Student led	Subject Classification*
Arkansas Law Notes	No	Law+
Concordia Law Review	Yes	Law
Georgetown Environmental Law Review Online	Yes	Environmental Studies, Law
Journal of Animal and Environmental Law	Yes	Animals, Law+
Natural Resources Journal	Yes	Law, Conservation
San Joaquin Agricultural Law Review	Yes	Agriculture, Law
University of Dayton Law Review	Yes	Law
University of the Pacific Law Review	Yes	Law
Vermont Journal of Environmental Law	Yes	Environmental Studies, Law
Villanova Environmental Law Journal	Yes	Environmental Studies, Law
Washington University Journal of Law and Policy	Yes	Law

\*Ulrichsweb Global Serials Directory, unless otherwise noted.

+WorldCat

A unique source is a source cited by one or more core articles. For example, where eight core articles cite the same *PLoS ONE* article, the *PLoS ONE* article is counted as one unique source. Duplicate citations refer to a unique source that is cited by two or more core articles. Duplicate citations in the database were evaluated to identify the most cited sources. Each source listed in the database is counted once per core article. For example, if a core article cites the same piece of legislation twice or more, it is only counted once per core article. The present study does not examine the depth of discussion or the number of times a core article cites a specific source.

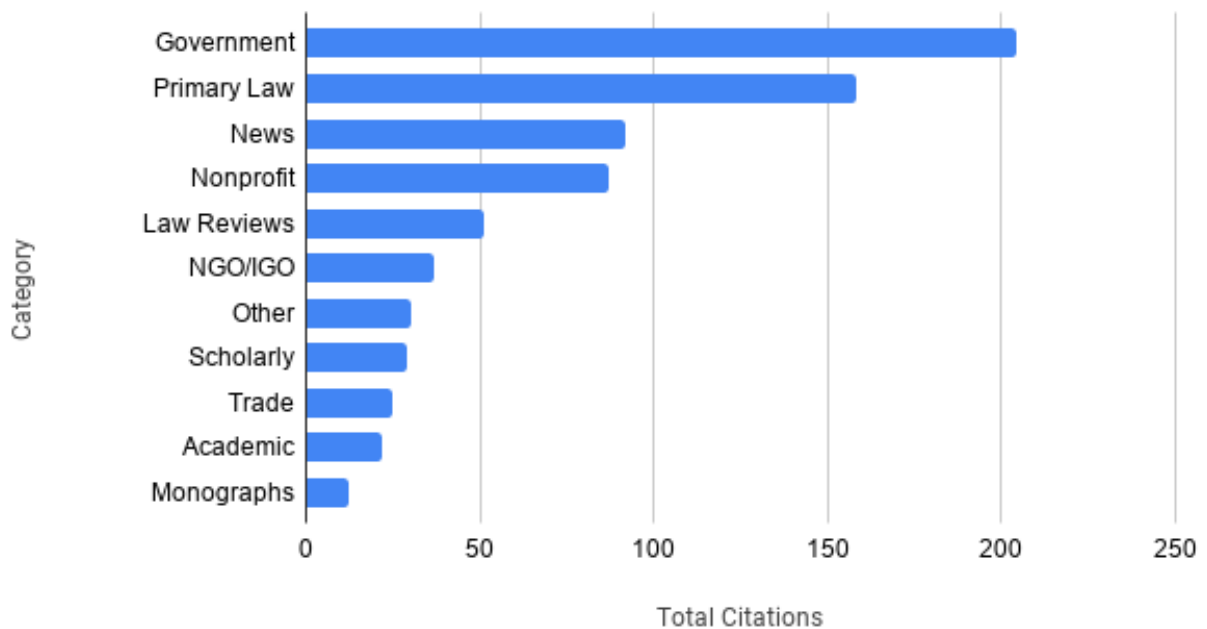
## Results

The categories, from most cited to least cited, are *Government Sources*, *Primary Law*, *News*, *Nonprofit*, *Law Reviews and Journals*, *NGO/IGO*, *Other Scholarly or Peer Reviewed*, *Other Sources*, *Trade or Professional Publications*, *Other Academic*, and *Monographs*. Citations categorized as *Government Sources* and *Primary Law* contribute approximately 48% of the citations in the database. *News*, *Nonprofit*, and *Law Reviews and Journals* contribute approximately 31% of database citations. The remaining six categories contribute only 21% of database citations. (See Fig. 1, below.)

*Government Sources* refers to any information source or secondary legal authority from any branch of local, state, or federal government. There are 204 total citations to information in this category. These sources include committee analyses, legislative histories, hearings, floor speeches, reports, press releases, and agency guidelines. Federal government sources account for 86% of citations in this category. The remaining 14% of citations in this category are to foreign, state, and municipal government sources.

*Primary law* refers to statutes, regulations, court cases, ordinances, or treaties. There are 158 total citations to primary legal authority. Federal legislation is the most cited primary law in the reviewed research with 62 total citations. State legislation is the next most cited source of primary law with 31 citations, followed by federal court cases with 23 citations. Citations to federal legislation, state legislation, and federal court cases make up approximately 73% of *Primary Law* citations.

Fig. 1: Total Citations by Category



*News* is the third most-cited category after *Government Sources* and *Primary Law*. This category includes mainstream news sources and news sources of a focused topic intended for a broad audience. The reviewed research cites 90 unique news items out of 92 total citations to 50 news sources. Citations to *NPR*, *New York Times*, and *The Guardian* account for approximately 40% of the total citations in this category.

*Nonprofit* refers to news items, reports, press releases, or other information published by a nonprofit organization. There are 87 total citations to resources from 37 nonprofit organizations in this category. Approximately 24% of the citations in this category are to eight unique sources from Natural Resource Defense Council (NRDC).

Law reviews and other scholarly journals are categorized separately. For each category, Ulrichsweb Global Serials Directory was consulted to find the subject classification for each

journal and to determine if the journal is peer reviewed. The *Law Reviews and Journals* category refers to law reviews and journals published by law schools or peer reviewed journals with law or policy as a subject. There are 51 total citations to sources in 32 law journals in the reviewed research. Twenty-five journals are student-led publications and six are peer-reviewed (See Appendix B, below).

*Other Scholarly or Peer-Reviewed Sources* refers to scholarly or peer-reviewed sources that do not have a subject focus of law or policy. There are 29 total citations to articles published in scholarly or peer reviewed sources. The reviewed research cites 21 journals in this category. *PLoS ONE*, an open access peer-reviewed journal, is the most cited journal in this study and the only journal of non-legal scholarship cited more than once. All journals in this category are peer reviewed except *Graduate Studies Journal of Organizational Dynamics*, which publishes the work of students in the Organizational Dynamics graduate program at University of Pennsylvania. Most journals in this category focus on agriculture, environmental issues, food, science, or health and nutrition (See Appendix C, below).

*NGO/IGO* refers to news items, reports, press releases, or other information published by a non-governmental organization or an intergovernmental organization. There are 37 total citations to information sources from four organizations. Seventy-nine percent of citations in this category are to information sources from United Nations (UN). Of the citations to UN sources, half are specifically to the Food and Agriculture Organization (FAO), an agency of the UN.

*Trade or Professional Publications* refers to news items, reports, press releases, or other information published by a trade publication or a professional organization. There are 25 citations to sources in this category.

*Other Academic* refers to reports, scholarship, blog posts, or other information hosted by a university or other educational institution. There are 22 total citations in this category and no duplicates.

*Other Sources* includes information sources that do not fit into any of the other categories. There are 30 total citations that fall within this category and no duplicates. Sources include commercial, financial, educational, and social media sources. This category includes five citations to commercially published secondary legal authority, such as Black's Law Dictionary and American Jurisprudence. These sources do not fit in the *Government Sources* or *Law Reviews and Journals* categories and because there are so few, do not warrant a separate category.

## Discussion

### Most-Cited Sources

The most-cited source in the database, with citations from nine core articles, is *The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America*, a report jointly produced by Natural Resources Defense Council (NRDC) and Harvard Food Law and Policy Clinic that likewise makes recommendations for improvement of existing standards. The report appears in the *Nonprofit* category of the database because core articles cited the version hosted online at NRDC. The lead author is Emily Broad Leib, founder and Director of Harvard Food Law and Policy Clinic, with contributions by Dana Gunders, an expert in food waste reduction ("Expertise," n.d.). Broad Leib is a recognized leader in food law and policy. In addition to eliminating food waste, her work focuses on other important issues in food law, such as sustainable agriculture and local food systems (Harvard Law School, n.d.).

Legal information sources contribute approximately 54% of the citations in the database. For analysis, a distinction is made between primary legal authority, or the law, and secondary legal

authority, which refers to resources about the law. For the purposes of this study, secondary legal authority is limited to law journal articles and information from government sources.

The USDA and the EPA are the most cited government sources, with 70 citations and 31 citations, respectively. The most cited source in the *Government Sources* category is a 2014 report from USDA Economic Research Service (ERS) entitled *The Estimated Amount, Value, and Calories of Postharvest Food Losses at the Retail and Consumer Levels in the United States* by Jean C. Buzby, Hodan Farah Wells, and Jeffrey Hyman.

Eight core articles cite the Emerson Act. Five core articles each cite the Food, Drug, and Cosmetic Act and IRC. Current research evaluates the Emerson Act and IRC for their effectiveness in promoting food recovery. Authors use the Food, Drug, & Cosmetic Act to support the argument that USDA has the authority to and should regulate food date labels. Four core articles cite the Food Date Labeling Act of 2016 (FDLA) as an example of recent federal legislative efforts to streamline food date labeling. FDLA differs from the above primary legal authority because it is proposed legislation. As of this writing, the bill has been introduced in both the House and the Senate and been referred to committees.

Three scholarly articles, two from law journals, have four or more citations. The most cited scholarly article in the entire database is “The Progressive Increase of Food Waste in American and Its Environmental Impact” by Kevin D. Hall, Juen Guo, Michael Dore, and Carson C. Chow. Eight core articles cite this article, which appears in *PLoS ONE*. “Out of Sight, Out of Mind: Finding a Solution to Food Waste in America” by Carmen Shaeffer Kalashian and “The Legal Guide to the Bill Emerson Good Samaritan Food Donation Act” by James Haley each have four citations. Kalashian’s and Haley’s articles are also core articles in this study.

Compared to other categories in this study, the number of cited law review articles is low. Core articles rely heavily on government information and primary legal authority and cite far more news sources than other legal scholarship. Overall, 43% of law journal articles are never cited (B. Friedman, 2018, p. 1323). It is beyond the scope of the present study to determine if the low number of law journal citations has any relationship to the overall trend.

### Potential for Further Study

All categories within the database, except monographs, rely on online sources of information.

Approximately 56% of citations in the database include a URL. There are 418 unique URLs in the database; 412 are to resources on the open web and six are to resources behind a paywall.

Sixty-eight URLs, or approximately 16% of unique URLs, to open web sources no longer work (See Table 2, below).

**Table 2: Bad Links and Permalinks in Database Citations**

Category	Unique URLs (Total URLs)	Bad or Inaccessible URLs from open web sources	Permalinks
Government Sources	144 (156)	35	31
News	85 (87)	7	8
Nonprofit	74 (80)	3	12
NGO/IGO	31 (31)	9	17
Academic	20 (20)	8	4
Other Sources	20 (20)	2	2
Trade/Professional	19 (20)	2	4
Other Scholarly and Peer Reviewed	12 (14)	2	0
Law Journals	4 (8)	0	3
<b>TOTALS</b>	<b>418 (446)</b>	<b>68</b>	<b>81</b>

Zittrain, Ablert, and Lessig assessed URLs cited in Supreme Court opinions, *Harvard Law Review*, *Harvard Journal of Law and Technology*, and *Harvard Human Rights Review* between 1996 and 2012 for both link rot, instances where a URL does not link to content, and reference



rot, where the information at a URL has changed (2013, p. 166). Their study found that 70% of URLs in the journals and 50% of URLs in Supreme Court cases do not link to the same content as when it was originally cited (Zittrain, Albert, & Lessig, 2013, p. 167). The present study evaluated cited links to determine the extent of link rot but did not evaluate cited links for reference rot.

As demonstrated by the reported results above, open web resources account for a significant number of sources cited by the core articles in this study, so strategies to preserve web content cited by scholars are important. Perma.cc is a service developed by the Harvard Library Innovation Lab to combat link and reference rot in scholarship and court cases. The service creates a cached version of the webpage at the request of a user. A permanent link, or permalink, is assigned to the cached version, which the user can provide in a citation. The advantage of Perma.cc is that it creates a snapshot of a webpage at the time it is cited. This protects cited sources from both link rot and reference rot because it preserves the online content as it appears at the time of citation. This ensures that any readers who wish to read an author's source are able to access the information as the author used it (Zittrain et al., 2013, pp. 180–181).

At the time of this writing, 133 law schools and universities make Perma.cc services available to scholars ("Perma CC's Partners," n.d.). Only 81 permalinks are included with citations in this study's database. Law libraries at six of the twelve schools associated with core journals are Perma.cc registrars, yet only three of the core articles reviewed for this study use permalinks alongside original URLs in citations. It is unclear if this is because journal staff are unaware of the service or if the schools became Perma.cc registrars after the articles' publication. Further research into citation preservation strategies in legal scholarship would be worthwhile.

## Journal Access

Core journals, law reviews and journals, and other scholarly and peer reviewed journals cited in this study were assessed for full text coverage and indexing using Ulrichsweb Global Serials Directory. HeinOnline, Westlaw Campus Research, and Nexis Uni provide excellent full text coverage of law reviews and journals. Academic Search Complete (Ebsco), Academic One File (Gale), and ProQuest Central (ProQuest) provide indexing or some full text for most law reviews and journals in this study. Web of Science (Thomson Reuters) indexes nine of the law journals. For other scholarly and peer reviewed journals, Academic Search Complete, Academic One File, and ProQuest Central provide excellent coverage for indexing and some full text. Web of Science indexes almost all scholarly and peer reviewed journals in this study. These databases were selected to provide a snapshot of indexing and full text coverage between legal information databases and general academic databases. Other Ebsco, Gale, or ProQuest products would fill in indexing coverage and provide full text coverage for some titles.

## Conclusion

This study provides some insight into the complexity of food law and the facets of agriculture, industry, and society that affect the success of food waste reduction legislation. Current research in food loss legislation relies on a number of sources outside of a law and policy framework, so scholars should be aware that useful, reliable information could come from unexpected places. Food waste legislation scholarship demonstrates the interaction of often competing stakeholders, such as consumers, food retailers, public institutions, and agribusiness, and touches on environmental, economic, and social themes. In the absence of legal database access, a combination of general subject databases can provide full text coverage of the sources used in this study.

## Acknowledgements

Elizabeth Rystrom, University of Arkansas School of Law (J.D. 2018) was my research assistant at the beginning of this project. I thank her for her hard work, attention to detail, and for sticking with me when I wasn't sure how this project was going to look in the end. Special thanks to my readers, Cathy Dwyer, Karina Ricker, Sue Kaczor, and Bridget Collins for their time and thoughtful comments.

## Appendix A: Core Journal Articles

- Bedard, M. K. (2017). Hunger Games in the Capital: An Examination of the Need for America's Elected Officials to Emerge from the Legislative Landfill and Combat Our Country's Food Waste and Hunger Epidemics. *University of Dayton Law Review*, 42, 283–306.
- Cronin, M. (2016). Wasted: A Failure of Food Waste Reduction and Pollution Prevention. *Georgetown Environmental Law Review Online*. Retrieved from <https://gelnr.org/2016/01/08/wasted-a-failure-of-food-waste-reduction-and-pollution-prevention/>
- Evans, A. I., & Nagele, R. M. (2017). A Lot to Digest: Advancing Food Waste Policy in the United States. *Natural Resources Journal*, 58, 177–214.
- Friedman, E. (2017). Towards 2030: Shortcomings and Solutions in Food Loss and Food Waste Reduction Policy. *Washington University Journal of Law and Policy*, 55, 265–293.
- Groszhans, C. (2016). The Trash We Make and Feed Ourselves the Way Americans Live Today and How the Law Can Help. *Journal of Animal & Environmental Law*, 8, 94–116.
- Haley, J. (2013). The Legal Guide to the Bill Emerson Good Samaritan Food Donation Act. *Arkansas Law Notes*, 2013. Retrieved from

<http://media.law.uark.edu/arklawnotes/2013/08/08/the-legal-guide-to-the-bill-emerson-good-samaritan-food-donation-act/>

Kalashian, C. S. (2013). Out of Sight, out of Mind: Finding a Solution to Food Waste in America Comment. *San Joaquin Agricultural Law Review*, 23, 103–124.

Kessler, N. (2018). Chapter 787: Reducing Food Waste with Fresh Food Date Labeling Terminology. *University of the Pacific Law Review*, 49, 355–375.

Moore, R. (2017). Nasty Weather and Ugly Produce: Climate Change, Agricultural Adaption, and Food Waste Student Article. *Natural Resources Journal*, 57, 493–518.

Munger, S. (2018). Bill Emerson’s Makeover: Refomring the Bill Emerson Good Samaritan Food Donation Act. *Vermont Journal of Environmental Law*, 19, 64–88.

Smith, B. L. (2016). Heat up Those Leftovers, Not the Planet: How Combatting Food Waste Can Affect Climate Change Note. *Vermont Journal of Environmental Law*, 18, 648–665.

Thomson, G. B. (2017). Food Date Labels and Hunger in America Student Comment. *Concordia Law Review*, 2, 143–166.

Vaz, N. M. (2015). Are You Gonna Eat That: A New Wave of Mandatory Recycling Has Massachusetts and Other New England States Paving the Way towards Feasible Food Waste Diversion and a New Player in Alternative Energy Comments. *Villanova Environmental Law Journal*, 26, 193–214.

## Appendix B: Law Journals Cited by Core Articles

<b>Journal</b>	<b>Subject*</b>
American Business Law Journal	Corporate Law, Business and Economics
Arizona Journal of Environmental Law & Policy	Environmental Law+
Arkansas Law Notes	Law
Cardozo Journal of International and Comparative Law	International Law
Columbia Law Review	Law
Drake Journal of Agricultural Law	Agriculture, Law
European Journal of Risk Regulation	Public Health and Safety
Food and Drug Law Journal	Medical Science, Pharmacy and Pharmacology, Law, Food and Food Industries
Food Policy	Agriculture
Fordham Environmental Law Review	Environmental Studies, Law
Georgetown Environmental Law Review Online	Environmental Studies, Law
Georgetown Journal on Poverty Law & Policy	Law, Social Service, Welfare
Harvard Law Review	Law
Journal of Health and Biomedical Law	Biology, Medical Science, Law
Journal of Legislation	Law
Kentucky Journal of Equine, Agriculture, and Natural Resource Law	Environmental Studies, Law
Notre Dame Law Review	Law
Penn State Journal of Law and International Affairs	International Law
San Joaquin Agricultural Law Review	Agriculture, Law
Seattle Journal for Social Justice	Political Science, Civil Rights, Law
Seattle University Law Review	Law
SMU Law Review	Law
Temple Law Review	Law
Texas Law Review	Law
Tulane Law Review	Law
UALR Law Review	Law
University of St. Thomas Law Journal	Law
Vanderbilt Journal of Transnational Law	International Law
Villanova Environmental Law Journal	Environmental Studies, Law
Widener Law Journal	Law
Yale Law and Policy Review	Law
Yale Law Journal Forum	Law

\*Ulrichsweb Global Serials Directory, unless otherwise noted.

+WorldCat

## Appendix C: Other Scholarly and Peer Reviewed Journals Cited by Core Articles

<b>Journal</b>	<b>Peer Reviewed*</b>	<b>Subject*</b>
Agriculture and Food Security	Yes	Agriculture, Food & Food Industries
American Journal of Agricultural Economics	Yes	Agriculture
Comprehensive Reviews in Food Science and Food Safety	Yes	Food & Food Industries
Cornell Hospitality Quarterly	Yes	Hotels & Restaurants
Graduate Studies Journal of Organizational Dynamics	No	Organizational Theory+
Journal of Environmental Management	Yes	Environmental Studies
Journal of Food Distribution Research	Yes	Business & Economics, Food & Food Industries
Journal of Food Protection	Yes	Food & Food Industries, Public Health and Safety, Agriculture
Journal of Food Science and Technology	Yes	Agriculture
Journal of Nutrition, The	Yes	Nutrition & Dietetics
Journal of Public Economics	Yes	Mathematics, Business & Economics
Journal of Rural Health, The	Yes	Medical Sciences, Public Health & Safety
Journal of the Academy of Nutrition and Dietetics	Yes	Nutrition & Dietetics
Nature Climate Change	Yes	Meteorology
Plant Physiology	Yes	Biology
PLoS One	Yes	Medical Science, Sciences
Poultry Science	Yes	Agriculture
Proceedings of the National Academy of Sciences	Yes	Sciences
Public Health Nutrition	Yes	Nutrition & Dietetics, Public Health & Safety
Resources, Conservation and Recycling	Yes	Environmental Studies, Conservation
Third World Quarterly	Yes	Business & Economics

\*Ulrichsweb Global Serials Directory, unless otherwise noted.

+Introduction, <https://repository.upenn.edu/gsjod/>

## References

- Bates, M. J. (2002). Speculations on Browsing, Directed Searching, and Linking in Relation to the Bradford Distribution. In H. Bruce, R. Fidel, P. Ingwersen, & P. Vakkari (Eds.), *Emerging frameworks and methods: CoLIS 4: proceedings of the Fourth International Conference on Conceptions of Library and Information Science*.
- Bedard, M. K. (2017). Hunger Games in the Capital: An Examination of the Need for America's Elected Officials to Emerge from the Legislative Landfill and Combat Our Country's Food Waste and Hunger Epidemics. *University of Dayton Law Review*, 42, 283–306.
- Buzby, J. C., Farah-Wells, H., & Hyman, J. (2014). The Estimated Amount, Value, and Calories of Postharvest Food Losses at the Retail and Consumer Levels in the United States. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2501659>
- Cooper, I. D. (2016). What is a “mapping study?” *Journal of the Medical Library Association : JMLA*, 104(1), 76–78. <https://doi.org/10.3163/1536-5050.104.1.013>
- Correia, A., Schneider, D., Fonesca, B., & Paredes, H. (2018). Crowdsourcing and Massively Collaborative Science: A Systematic Literature Review and Mapping Study. In A. Rodrigues, B. Fonesca, & N. Preguiça (Eds.), *Collaboration and Technology. CRIWG 2018*. (Vol. 11001).
- Cronin, M. (2016). Wasted: A Failure of Food Waste Reduction and Pollution Prevention. *Georgetown Environmental Law Review Online*. Retrieved from <https://gelr.org/2016/01/08/wasted-a-failure-of-food-waste-reduction-and-pollution-prevention/>
- Desai, N., Veras, L., & Gosain, A. (2018). Using Bradford's law of scattering to identify the core journals of pediatric surgery. *Journal of Surgical Research*, 229, 90–95. <https://doi.org/10.1016/j.jss.2018.03.062>

- Evans, A. I., & Nagele, R. M. (2017). A Lot to Digest: Advancing Food Waste Policy in the United States. *Natural Resources Journal*, 58, 177–214.
- Expertise. (n.d.). Retrieved November 6, 2018, from <https://nextcourse.co/expertise/> [perma: <https://perma.cc/75B3-98YC>]
- Friedman, B. (2018). Fixing Law Reviews. *Duke Law Journal*, 67(7), 1297–1380.
- Friedman, E. (2017). Towards 2030: Shortcomings and Solutions in Food Loss and Food Waste Reduction Policy. *Washington University Journal of Law and Policy*, 55, 265–293.
- Groszhans, C. (2016). The Trash We Make and Feed Ourselves the Way Americans Live Today and How the Law Can Help. *Journal of Animal & Environmental Law*, 8, 94–116.
- Haley, J. (2013). The Legal Guide to the Bill Emerson Good Samaritan Food Donation Act. *Arkansas Law Notes*, 2013. Retrieved from <http://media.law.uark.edu/arklawnotes/2013/08/08/the-legal-guide-to-the-bill-emerson-good-samaritan-food-donation-act/>
- Harvard Law School. (n.d.). Emily M. Broad Leib | Harvard Law School. Retrieved November 6, 2018, from <https://hls.harvard.edu/faculty/directory/11185/BroadLeib> [perma: <https://perma.cc/5GH9-DDTG>]
- Kalashian, C. S. (2013). Out of Sight, out of Mind: Finding a Solution to Food Waste in America Comment. *San Joaquin Agricultural Law Review*, 23, 103–124.
- Kessler, N. (2018). Chapter 787: Reducing Food Waste with Fresh Food Date Labeling Terminology. *University of the Pacific Law Review*, 49, 355–375.
- Moore, R. (2017). Nasty Weather and Ugly Produce: Climate Change, Agricultural Adaption, and Food Waste Student Article. *Natural Resources Journal*, 57, 493–518.



- Munger, S. (2018). Bill Emerson's Makeover: Refomring the Bill Emerson Good Samaritan Food Donation Act. *Vermont Journal of Environmental Law*, 19, 64–88.
- Perma CC's Partners. (n.d.). Retrieved December 11, 2018, from <https://perma.cc/about#perma-partners> [perma: <https://perma.cc/52A5-5XAP>]
- Perryman, C. L. (2016). Mapping studies. *Journal of the Medical Library Association : JMLA*, 104(1), 79–82. <https://doi.org/10.3163/1536-5050.104.1.014>
- ReFED. (2016). *A Roadmap to Reduce U.S. Food Waste by 20 Percent*. ReFED. Retrieved from <http://www.refed.com>
- Smith, B. L. (2016). Heat up Those Leftovers, Not the Planet: How Combatting Food Waste Can Affect Climate Change Note. *Vermont Journal of Environmental Law*, 18, 648–665.
- Thomson, G. B. (2017). Food Date Labels and Hunger in America Student Comment. *Concordia Law Review*, 2, 143–166.
- USDA. (n.d.). Let's Glean, United We Serve Toolkit. Retrieved November 6, 2018, from <https://furtherwithfood.org/resources/lets-glean-united-we-serve-toolkit/> [perma: <https://perma.cc/BT9M-AM3U>]
- Vaz, N. M. (2015). Are You Gonna Eat That: A New Wave of Mandatory Recycling Has Massachusetts and Other New England States Paving the Way towards Feasible Food Waste Diversion and a New Player in Alternative Energy Comments. *Villanova Environmental Law Journal*, 26, 193–214.
- Zittrain, J. L., Albert, K., & Lessig, L. (2013). *Perma: Scoping and Addressing the Problem of Link and Reference Rot in Legal Citations* (SSRN Scholarly Paper No. ID 2329161). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=2329161>

© Angela Hackstadt, 2019. This work is licensed under a [Creative Commons Attribution-Non-Commercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/)