

## Appendix

### Online Reports of Foodborne Illness Capture Foods Implicated in Official Foodborne Outbreak Reports

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Table A.1: List of colleges included in the Yelp dataset.

University	City	State
Brown University	Providence	Rhode Island
California Institute of Technology	Pasadena	California
California Polytechnic State University	San Luis Obispo	California
Carnegie Mellon University	Pittsburg	Pennsylvania
Columbia University	New York	New York
Cornell University	Ithaca	New York
Georgia Institute of Technology	Atlanta	Georgia
Harvard University	Cambridge	Massachusetts
Harvey Mudd College	Claremont	California
Massachusetts Institute of Technology	Cambridge	Massachusetts
Princeton University	Princeton	New Jersey
Purdue University	West Lafayette	Indiana
Rensselaer Polytechnic Institute	Troy	New York
Rice University	Houston	Texas
Stanford University	Stanford	California
University of California - Los Angeles	Los Angeles	California
University of California - San Diego	La Jolla	California

University of California at Berkeley	Berkeley	California
University of Illinois - Urbana-Champaign	Champaign	Illinois
University of Maryland - College Park	College Park	Maryland
University of Massachusetts - Amherst	Amherst	Massachusetts
University of Michigan - Ann Arbor	Ann Arbor	Michigan
University of North Carolina - Chapel Hill	Chapel Hill	North Carolina
University of Pennsylvania	Philadelphia	Pennsylvania
University of Southern California	Los Angeles	California
University of Texas – Austin	Austin	Texas
University of Washington	Seattle	Washington
University of Wisconsin – Madison	Madison	Wisconsin
Virginia Tech	Blacksburg	Virginia

The city and state in which the universities are located are provided in columns two and three.

Table A.2: Keyword list

Stomach ache	Stomach pain	Abdominal pain	Abdominal ache	Puk*	Cronobacter
Vomit*	Throw* up	Tummy upset	Tummy pain	Sick	Clostridium
Food poisoning	Threw up	Nausea	Spew	Indigestion	Cryptococcosis
Spit*	Heartburn	Acidosis	Gastro*	The runs	Cryptosporidiosis
Diarrhea	Amebiasis	Anisakiasis	Ascariasis	Anthrax	Cyclospora
Botulism	Brucellosis	Campylobacteriosis	Cholera	Ciguatoxin	Cysticercosis
Escherichia	Giardia	Helicobacter	Hepatitis A	Roundworm	Diphyllobothr*
Isosporiasis	Leptospirosis	Listeri*	Norovirus	Rat-bite fever	E.coli/ Ecoli/ E coli
Rotavirus	Salmonell*	Shigell*	Staphylococcus	Toxoplasmosis	Viral

					gastroenteritis
Toxoplasma infection	Trichinellosis	Trichinosis	Trichinella	Typhoid	Marine toxins
Vibrio parahaemolyticus	Vibrio vulnificus	Vibrio cholerae	Yersinia		

Keywords used in extracting reviews containing reports of foodborne illness. The keywords consist of foodborne diseases from the CDC and words associated with symptoms of foodborne illness.

Table A.3: Restaurant Inspection Websites

State (City/County)	Inspection Website
Massachusetts (Cambridge)	<a href="http://www2.cambridgema.gov/inspectional/searchInspections.cfm?tnltext=Back%20to%20Search%20Food%20Handling%20Inspections">http://www2.cambridgema.gov/inspectional/searchInspections.cfm?tnltext=Back%20to%20Search%20Food%20Handling%20Inspections</a>
Georgia (Fulton County)	<a href="http://ga.state.gegov.com/georgia/history.cfm?id=877372&amp;inspID=1729884&amp;county=Fulton">http://ga.state.gegov.com/georgia/history.cfm?id=877372&amp;inspID=1729884&amp;county=Fulton</a>
California (Berkeley)	<a href="http://www.ci.berkeley.ca.us/environmentalhealth/inspections.asp">http://www.ci.berkeley.ca.us/environmentalhealth/inspections.asp</a>
California (San Luis Obispo)	<a href="http://www.slocounty.ca.gov/health/publichealth/ehs/services/food/RestInspSearch.htm">http://www.slocounty.ca.gov/health/publichealth/ehs/services/food/RestInspSearch.htm</a>

Table A.4: Rankings of twenty most specific food categories for reports from CDC and Yelp. 2012 was excluded since Yelp data was incomplete.

Year	2006		2007		2008		2009		2010		2011	
Category	CDC	Yelp	CDC	Yelp	CDC	Yelp	CDC	Yelp	CDC	Yelp	CDC	Yelp
Beef	14	15.5	16	10.5	16.5	17	17	10	13	15	14.5	16
Crustaceans	7	7	7	3.5	5.5	7.5	2.5	8.5	4.5	8.5	5.5	5
Dairy	18	15.5	18	18	18	18	18	18	18	18	18	18
Eggs	13	7	13.5	14	13	10	16	13	15	8.5	10	12
Fish	12	7	11	10.5	12	15	10	8.5	12	8.5	9	10
Fruits-nuts	10	7	13.5	14	11	14	13	14	10.5	14	12	9
Fungi	5	7	4.5	10.5	5.5	3	2.5	4.5	4.5	5.5	5.5	5
Game	1.5	7	1.5	3.5	2	3	2.5	2	4.5	2	5.5	1.5
Grains-beans	19	19	19	19	19	19	19	19	19	19	19	19
Leafy	16	15.5	12	7.5	15	12.5	12	15	17	11	14.5	14
Meat	6	15.5	4.5	7.5	2	6	5.5	11.5	4.5	8.5	2	12
Mollusks	8	7	4.5	3.5	8.5	7.5	7	6.5	9	4	11	8
Pork	9	7	10	10.5	10	12.5	11	6.5	10.5	12	13	7
Poultry	15	18	17	16	14	16	14	17	14	17	17	17
Root	11	7	9	14	5.5	10	8.5	11.5	7.5	13	5.5	12
Shellfish	3	7	1.5	3.5	2	3	2.5	2	1.5	2	2	1.5
Sprout	1.5	7	4.5	3.5	8.5	3	8.5	2	7.5	2	8	5
Vegetables	4	7	8	3.5	5.5	3	5.5	4.5	1.5	5.5	2	3
Vine-stalk	17	7	15	17	16.5	10	15	16	16	16	16	15

Table A.5: Yelp’s foodservice business categories

Restaurants	Afghan	African	American	Arabian	Argentine	Armenian	Asian Fusion	Australian	Austrian
Bangladeshi	Barbeque	Basque	Belgian	Brasseries	Brazilian	Breakfast & Brunch	British	Buffets	Burgers
Burmese	Cafes	Cafeteria	Cajun/Creole	Cambodian	Caribbean	Catalan	Cheesesteaks	Chicken Wings	Chinese
Senegalese	South African	Comfort Food	Creperies	Cuban	Czech	Delis	Diners	Ethiopian	Fast Food
Filipino	Fish & Chips	Fondue	Food Court	Food Stands	French	Gastropubs	German	Gluten-Free	Greek
Halal	Hawaiian	Himalayan/Nepalese	Hot Dogs	Hot Pot	Hungarian	Iberian	Indian	Indonesian	Irish
Italian	Japanese	Korean	Kosher	Laotian	Latin American	Live/Raw Food	Malaysian	Mediterranean	Mexican
Middle Eastern	Modern European	Mongolian	Pakistani	Persian/Iranian	Peruvian	Pizza	Polish	Portuguese	Russian
Salad	Sandwiches	Scandinavian	Scottish	Seafood	Singaporean	Slovakian	Soul Food	Soup	Southern
Spanish	Steakhouses	Sushi Bars	Taiwanese	Tapas Bars	Tapas/Small Plates	Tex-Mex	Thai	Turkish	Ukrainian
Vegan	Vegetarian	Vietnamese	Dominican	Haitian	Puerto Rican	Trinidadian	Columbian	Salvadoran	Venezuelan
Cantonese	Dim Sum	Shanghainese	Szechuan	Egyptian	Lebanese	Food	Bagels	Bakeries	Bubble Tea
Coffee & Tea	Desserts	Donuts	Food Delivery Services	Food Trucks	Gelato	Ice Cream & Frozen Yogurt	Internet Cafes	Juice Bars & Smoothies	Pretzels
Specialty Food	Candy Stores	Cheese Shops	Chocolatiers & Shops	Ethnic Food	Fruits & Veggies	Street Vendors	Tea Rooms		

General categories such as “restaurants” and specific categories such as “thai” are included.