

Emergency Disaster Management Insights National Agencies and Local Government

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I. The National Oceanic and Atmospheric Administration (NOAA)

The National Oceanic and Atmospheric Administration (NOAA) compiles a storm events database (*Storm Data*) that documents “the occurrence of storms and other significant weather phenomena having sufficient intensity to cause loss of life, injuries, significant property damage, and/or disruption to commerce; rare, unusual, weather phenomena that generate media attention, such as snow flurries in South Florida or the San Diego coastal area; and other significant meteorological events, such as record maximum or minimum temperatures or precipitation that occur in connection with another event.”¹

The information within *Storm Data* are collected by a variety of sources including the National Weather Service (NWS), the media, law enforcement, government agencies, emergency managers, private companies, individuals, etc. NOAA makes an effort to use the most reliable information possible for this dataset.

These data are useful for getting a sense of the type of severe weather that can affect Kentucky. Each entry in the database is a weather event. *Weather events* include snow, high wind speeds, lightning, ice storms, etc. Multiple events can make up one *episode* (i.e., a larger weather incident), such as a winter storm. The NOAA data are very detailed and give precise locations and times for each event, as well as rough estimates on damage, and injuries and deaths. Figure 1 and Table 1 detail the average number of weather episodes for fiscal years (FY) 2008-2018 and by type of weather episodes for Kentucky counties², respectively.

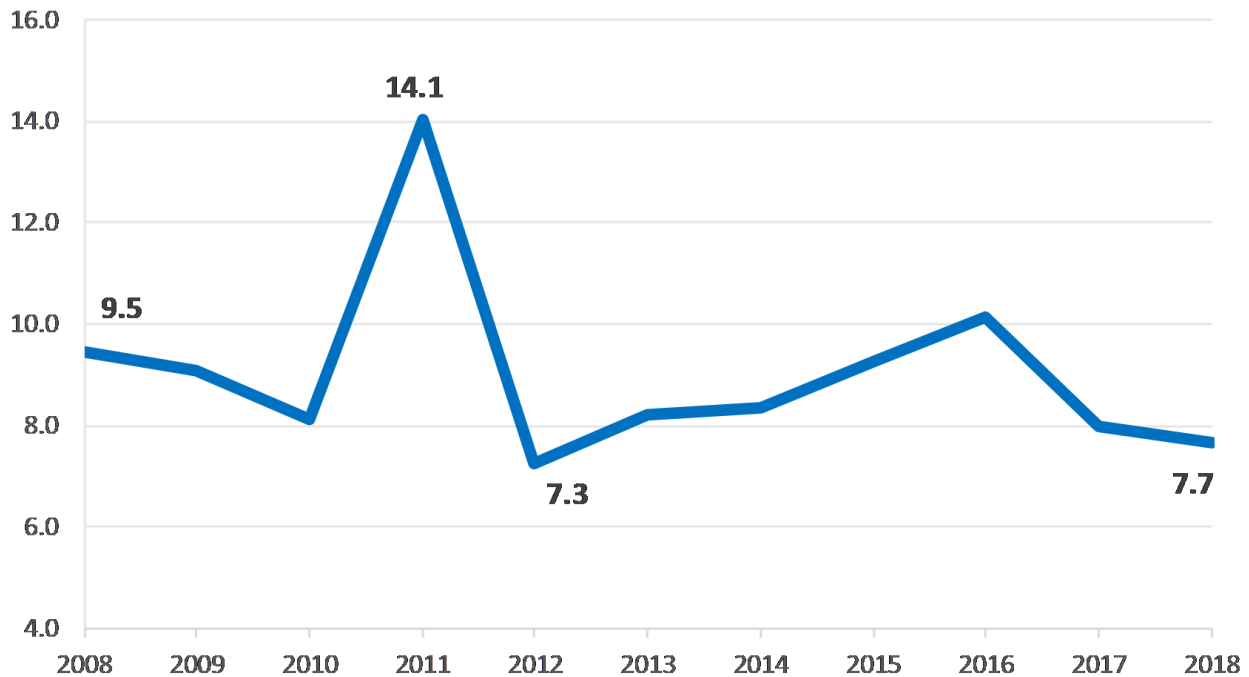


Figure 1. 2008-2018 Kentucky Counties Weather Episodes (annual average number)

Source: NOAA, 2018

¹ <https://www.ncdc.noaa.gov/stormevents/>

² Jefferson and Fayette Counties are not included. Specific weather information for the two counties is presented in the Appendix.

Table 1. Kentucky Counties Common Disaster-related Events (average number of occurrences)

FY	Strong Wind	Flash Flood	Flood	Winter Storm	Heavy Snow	Tornado	Ice Storm
2008	3.0	0.8	1.6	0.4	0.3	0.5	0.2
2009	3.2	1.3	0.4	1.0	0.2	0.3	0.3
2010	1.9	1.9	1.3	0.6	1.3	0.2	0.0
2011	3.8	1.6	2.0	1.0	0.8	0.6	0.1
2012	1.8	0.6	0.7	0.5	0.2	0.5	0.0
2013	2.7	0.8	0.7	0.7	0.1	0.2	0.1
2014	2.1	1.4	1.2	1.6	0.3	0.3	0.1
2015	2.0	1.1	2.2	1.3	0.7	0.2	0.0
2016	2.9	1.9	1.0	0.8	0.7	0.3	0.0
2017	3.0	1.6	0.5	0.2	0.0	0.3	0.0
2018	2.2	1.0	1.9	1.4	0.2	0.3	0.0

Source: NOAA, 2018

II. The Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) was created via an executive order of President Jimmy Carter on April 1, 1979. FEMA's mission is "to lead America to prepare for, prevent, respond to and recover from disasters with a vision of A Nation Prepared." FEMA's statutory authority is granted by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. This act created the system through which a presidential disaster declaration triggers the release of financial and physical assistance through FEMA.

There are three main steps to the disaster declaration process. First, an incident occurs and the affected state, territorial or tribal government will determine if the incident is of substantial magnitude that it exceeds the government's capabilities to recover. If this is the case, a joint preliminary damage assessment (PDA) will be requested. Federal, state, territorial, tribal, local government, and private nonprofit organization officials work together to assess the magnitude and impact of the incident.

Once the PDA is completed, the second step of the process is for the state, territorial or tribal government to submit a declaration request. This must occur within 30 days of the incident. The U.S. President will then review the request and determine whether to issue a disaster declaration. The final step is for the President to formally sign the disaster declaration. A Presidential disaster declaration establishes the Federal cost share (for public assistance projects), type of incident, incident period/incident duration, designated areas, types of assistance to be made available, and appoints a Federal Coordinating Officer.

There are four main types of assistance that can be made available through the disaster declaration: 1) individuals and households (IH); 2) individual assistance (IA); 3) public assistance (PA); and 4) hazard mitigation (HM). The program most pertinent to local government officials is the *public assistance (PA) grant program*.

FEMA's Public Assistance grant program provides funds to help communities respond to and recover from disasters and emergencies declared by the President. FEMA processes PA grant funding according to the type of work needed. In order for a project to be eligible for PA grant funding, it must be the result of the weather incident, located in the designated area, be the legal responsibility of the applicant, and be undertaken at a reasonable cost. Public projects are classified into two broad categories: *emergency work* and *permanent work*. *Emergency work* consists of debris removal and other emergency protective measures. *Permanent work* consists of work on roads and bridges, water control facilities, public buildings and contents, public utilities, and parks, recreational, and other facilities.

PA grant funding through FEMA is subject to a cost share. The Federal share is equal to or more than 75% of eligible costs. If actual federal obligations meet or exceed a qualifying threshold, FEMA may recommend an increase up to 90%. It is also possible that the cost share for emergency work will be increased depending on circumstance. Links to summaries for the disasters that have been declared in Kentucky since the fiscal year 2008 are provided in the Appendix.

In general, the number of FEMA declared disasters is smaller than the number of severe weather episodes registered under NOAA.

III. Local County Governments

County Budget Revenues

Kentucky counties receive revenue from local taxes and from transfers from other governments. Counties are legally bound to levy an ad valorem tax on all property subject to county taxation. Counties generally raise the majority of local tax revenue through ad valorem taxes on real and personal property. In addition, counties can levy income taxes or occupational license taxes, which can be a substantial source of tax revenue. Counties may also choose to raise revenue through sources such as license fees and franchise taxes.

Three primary limitations apply to county government taxation in Kentucky. First, counties must have legislative authority (i.e., counties must construct taxes that are within the bounds of Kentucky state law). Second, tax resolutions passed by fiscal courts must clearly state the distinct purpose of the tax. It follows that revenues raised from a tax for one distinct purpose may not be used for any other purpose. However, *in case of emergency*, the fiscal court may transfer such funds from one budget unit to another. Finally, taxes must be sufficient to pay debts within 40 years. This applies when a proposed tax is tied to some type of debt.

Beyond solely tax revenue, counties receive aid from the federal government as well as the state government. Aid from the federal government usually comes in the form of a grant. State government aid comes from various funds, grants, and programs. A large share of funding for the building, repair, and maintenance of public roads within counties also comes from the state government.

Aside from taxes and intergovernmental transfers, counties may generate revenue through general operations. Operations revenues include excess fees, property income, court space rental, proprietary income, investment and reinvestment of funds, tax penalties, borrowed money, and community foundations. Tables 2 and 3 provide an overview of county government total revenues in Kentucky. The data in the tables are average revenues and annual changes across 118 counties, for total revenues and for major revenue categories. Because of the difference in budget items and size, these data do not include Fayette and Jefferson Counties. The data in Table 2 are reported for both current dollars and real dollars (adjusted to 2009 dollars). Adjusting for the purchasing power allows for a more accurate comparison between years.

Table 2. Average Total Revenues and Annual Change for FYs 2008-2018

Fiscal Year	Average Total Revenues		Average Total Revenues	
	Current Dollars	Annual Change	2009 dollars	Annual Change
2008	\$13,711,813	---	\$13,766,660	--
2009	\$14,716,830	7.3%	\$14,716,830	6.9%
2010	\$15,633,645	6.2%	\$15,883,783	7.9%
2011	\$15,384,719	-1.6%	\$16,123,186	1.5%
2012	\$15,819,419	2.8%	\$16,926,778	5.0%
2013	\$16,087,351	1.7%	\$17,470,864	3.2%
2014	\$16,253,841	1.0%	\$17,944,240	2.7%
2015	\$16,207,485	-0.3%	\$18,249,628	1.7%
2016	\$16,453,020	1.5%	\$18,904,520	3.6%
2017	\$17,224,498	4.7%	\$20,238,786	7.1%
2018	\$18,865,089	9.5%	\$22,675,838	12.0%
Overall Average	\$16,032,519	3.3%	\$17,536,465	5.2%

Source: KY Department for Local Government, County Budgets 2008-2018

Table 3. Major Revenue Categories (average percentage of non-borrowed revenues)

Fiscal Year	Taxes and In Lieu Payments	Intergovernmental Revenues	Charges For Services	Excess Fees	License and Permits	Interest Earned	Miscellaneous
2008	37.7%	43.5%	6.9%	2.3%	1.1%	1.1%	7.4%
2009	39.1%	43.0%	7.1%	2.1%	1.1%	0.7%	6.9%
2010	37.5%	45.4%	6.7%	2.1%	1.0%	0.5%	6.9%
2011	39.2%	44.0%	6.6%	2.2%	1.0%	0.4%	6.6%
2012	39.0%	44.0%	6.6%	2.3%	1.0%	0.3%	6.9%
2013	39.5%	42.8%	6.7%	1.9%	1.1%	0.2%	7.8%
2014	40.7%	43.5%	6.6%	1.9%	1.1%	0.2%	6.0%
2015	41.5%	41.7%	6.7%	2.3%	1.1%	0.2%	6.6%
2016	42.8%	40.6%	6.8%	1.8%	1.1%	0.2%	6.7%
2017	43.8%	39.1%	7.0%	1.9%	1.2%	0.2%	6.6%
2018	44.6%	38.3%	6.9%	1.9%	1.2%	0.3%	6.9%
Overall Average	40.5%	42.4%	6.8%	2.1%	1.1%	0.4%	6.8%

Source: KY Department for Local Government, County Budgets 2008-2018

Tables 4 and 5 illustrate the number of counties that levy certain types of taxes, as well as the average percent for each selected tax from total tax revenue for counties with population below and above 30,000 people. The population cutoff of 30,000 is chosen because there is a separate set of statutes relating to the process for imposing occupational license taxes for counties with a population between 30,000 and 300,000 people. Similarly, there is a different statutory process for counties with a population over 300,000; however, such counties (Fayette and Jefferson) are not included in these data.

Table 4. Tax Revenues for Counties with Population below 30,000 (86 counties)

Tax	Number of Counties	Average Percent of Total Tax Revenues
Occupational License Fee/Tax	61	30.2%
Real Estate	86	14.2%
Insurance License Fee/Tax	30	13.6%
Net Profits Fee/Tax	22	8.3%
Telephone 911 Fee/Tax	72	2.8%
Motor Vehicle	86	2.7%
Franchise Corporation	66	2.1%
Tangible Personal Property	85	1.9%

Source: KY Department for Local Government, County Budgets 2008-2018

Table 5. Tax Revenues for Counties with Population above 30,000 (32 counties)

Tax	Number of Counties	Average Percent of Total Tax Revenues
Real Estate	32	23.0%
Occupational License Fee/Tax	23	22.2%
Insurance License Fee/Tax	11	12.9%
Net Profits Fee/Tax	10	6.7%
Motor Vehicle	32	3.2%
Telephone 911 Fee/Tax	22	2.7%
Tangible Personal Property	31	2.3%
Transient Room Tax	15	1.7%

Source: KY Department for Local Government, County Budgets 2008-2018

County Budget Expenditures

Among the powers and responsibilities of the fiscal court are obligations to appropriate money for the various purposes required by state law and to provide for the construction, operation, and maintenance of county buildings, roads, and other property. As such, the annual budget is a focal point for fiscal courts. Proposed expenditures must be classified according to budget units representing activities of county government, such as:

- General expenses of county government
- Protection to persons and property
- General health and sanitation
- Social services
- Recreation and culture
- Transportation facilities and services
- Debt service
- Administration and miscellaneous
- Jail operations

Once the budget has been formally proposed and adopted, it may be amended to provide for unanticipated expenditures. In addition, the fiscal court may transfer money between budget units *in the case of an emergency* or to provide for increases or decreases in the number of employees in a county official's office.

There are certain restrictions on county expenditures under Kentucky state law. For example, money must be allocated for the salary and office expenses of many county officials, the county must bear certain expenses of conducting elections, and payments must be made for mandatory audits of county funds and officials. There is also a stipulation that revenue raised by tax for one purpose may not be budgeted for any other purpose until the original purpose has been accomplished, or in case of emergency. Counties are also prohibited from having expenditures funds in excess of receipts funds for the year. There is also a fourth-year restriction that dictates that counties may not spend more than 65% of current funds during the first half of every fourth fiscal year (beginning with 1999 fiscal year). Tables 6 and 7 below report characteristics of county government expenditures from fiscal year 2008 through fiscal year 2018, for overall expenditures as well as for major expenditure categories, similar to the revenues section.

Table 6. Average Total Expenditures and Annual Change for FYs 2008-2018

Fiscal Year	Average Total Expenditures		Average Total Expenditure	
	Current Dollars	Annual Change	2009 dollars	Annual Change
2008	\$10,800,000	---	\$10,900,000	---
2009	\$10,600,000	-1.9%	\$10,600,000	-2.8%
2010	\$11,500,000	8.5%	\$11,700,000	10.4%
2011	\$11,500,000	0.0%	\$12,100,000	3.4%
2012	\$11,700,000	1.7%	\$12,500,000	3.3%
2013	\$12,000,000	2.6%	\$13,000,000	4.0%
2014	\$11,800,000	-1.7%	\$13,100,000	0.8%
2015	\$12,100,000	2.5%	\$13,600,000	3.8%
2016	\$12,100,000	0.0%	\$14,000,000	2.9%
2017	\$12,400,000	2.5%	\$14,600,000	4.3%
2018	\$13,200,000	6.5%	\$15,900,000	8.9%
Overall Average	\$11,790,909	2.1%	\$12,909,091	3.9%

Source: KY Department for Local Government, County Budgets 2008-2018

Table 7. Major Expenditure Categories (average percentage of total expenditures)

Fiscal Year	Protection to Persons and Property	Administration	Roads and Transportation	General Government	General Health and Sanitation
2008	21.6%	16.2%	15.3%	14.1%	7.0%
2009	24.8%	17.2%	15.4%	16.1%	7.2%
2010	22.9%	16.3%	17.6%	14.8%	7.2%
2011	23.8%	17.3%	18.2%	16.8%	6.9%
2012	23.6%	18.0%	17.6%	16.8%	6.9%
2013	23.6%	17.9%	17.2%	18.4%	6.4%
2014	24.4%	18.8%	18.1%	16.7%	6.2%
2015	24.7%	18.5%	17.9%	17.3%	6.2%
2016	19.4%	14.1%	13.6%	14.1%	5.0%
2017	18.7%	12.8%	11.1%	13.4%	4.5%
2018	25.7%	18.0%	15.4%	17.7%	6.1%
Overall Average	23.0%	16.8%	16.1%	16.0%	6.3%

Source: KY Department for Local Government, County Budgets 2008-2018

Overall, budgetary items on both revenues and expenditures must be classified under their specific funds and are not subject to transfer or change, unless an emergency occurs and the original purpose has been accomplished. In such case, the fiscal court may transfer funds from one budget unit to another, as needed. In addition, within a fiscal year budgets can be amended between the "original" and "final" budget to account for any unanticipated revenue or expenditure changes, under the revision and approval of KY Local Government officials.

References:

1. KY Department for Local Government/County Budgets, http://kydlgweb.ky.gov/Counties/16_CountyHome.cfm
2. FEMA/Media Library, <https://www.fema.gov/media-library>
3. NOAA/Storm Events Database, <https://www.ncdc.noaa.gov/stormevents/>

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Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

Appendix

Kentucky FEMA Declared Disasters, FY 2008-2018*

Declaration Date	Incident Type	Counties Affected (count)	PDA Report
2/21/2008	Severe Storm(s)	23	https://www.fema.gov/pdf/news/pda/1746.pdf
5/19/2008	Severe Storm(s)	15	https://www.fema.gov/pdf/news/pda/1757.pdf
10/9/2008	Severe Storm(s)	35	https://www.fema.gov/pdf/news/pda/1802.pdf
2/5/2009	Severe Ice Storm	103	https://www.fema.gov/pdf/news/pda/1818.pdf
5/29/2009	Severe Storm(s)	24	https://www.fema.gov/pdf/news/pda/1841.pdf
8/14/2009	Severe Storm(s)	2	https://www.fema.gov/pdf/news/pda/1855.pdf
5/11/2010	Severe Storm(s)	83	https://www.fema.gov/pdf/news/pda/1912.pdf
7/23/2010	Severe Storm(s)	8	https://www.fema.gov/pdf/news/pda/1925.pdf
5/4/2011	Severe Storm(s)	79	https://www.fema.gov/pdf/news/pda/1976.pdf
7/25/2011	Severe Storm(s)	7	https://www.fema.gov/pdf/news/pda/4008.pdf
3/6/2012	Severe Storm(s)	23	https://www.fema.gov/media-library/assets/documents/26470
9/30/2014	Severe Storm(s)	4	https://www.fema.gov/media-library/assets/documents/99606
4/30/2015	Snow	41	https://www.fema.gov/media-library/assets/documents/106419
5/1/2015	Flood	29	https://www.fema.gov/media-library/assets/documents/106421
5/12/2015	Flood	59	https://www.fema.gov/media-library/assets/documents/106423
8/12/2015	Severe Storm(s)	34	https://www.fema.gov/media-library/assets/documents/109591
8/26/2016	Severe Storm(s)	20	https://www.fema.gov/media-library/assets/documents/124072
4/12/2018	Flood	22	Not yet available
4/26/2018	Flood	35	Not yet available

* Does not include Fayette and Jefferson Counties

Source: FEMA, 2018

FEMA Declared Disasters, Fayette and Jefferson Counties, FY 2008-2018

Declaration Date	Incident Type	County
2/21/2008	Severe Storm(s)	Fayette
10/9/2008	Severe Storm(s)	Jefferson
2/5/2009	Severe Ice Storm	Fayette
2/5/2009	Severe Ice Storm	Jefferson
8/14/2009	Severe Storm(s)	Jefferson
5/11/2010	Severe Storm(s)	Fayette
5/4/2011	Severe Storm(s)	Jefferson
5/1/2015	Flood	Jefferson
4/26/2018	Flood	Jefferson

Source: FEMA, 2018

Weather Episodes (count) in Fayette and Jefferson Counties

Fiscal Year	Fayette County	Jefferson County
2008	29	47
2009	5	38
2010	9	39
2011	13	74
2012	7	60
2013	14	41
2014	24	26
2015	19	59
2016	25	91
2017	20	19
2018	17	80

Source: NOAA, 2018