

Analysis of Prioritizing Resources aftermath of Hurricane Harvey 2017

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Hurricane Harvey

In 2017, Hurricane Harvey became one of the costliest hurricanes on record, causing approximately \$125 billion in damage. Most of the damage was caused from flooding with some areas receiving over 40 inches (102 cm) of rain.

The impact of Harvey was felt over much more than just 3 days. In the 2017 storm events data set, Harvey related events are reported beginning August 17th and end September 3rd as the system moved north and east across the United States. Flooding, thunderstorms, hail, and tornadoes are just a few of the weather events related to Harvey.

1. States Focused are:

- **Arkansas, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, and Texas.**

2. Harvey related events occurred only from the 17th of August to the 3rd of September.

DUE TO LARGE SET OF DATA IF THE X AND Y LABELS OF GRAPHS ARE NOT VISIBLE. KINDLY REFER TO GROUP SUMMARY TABLE.

Background and Scope

1. Import the Data

We have designed the function to import the data of similar files as importfile

```
filename = "StormEvents_2017_finalProject.csv"
```

```
filename =  
"StormEvents_2017_finalProject.csv"
```

```
Events = importfile(filename)
```

Events = 57006x14 table

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	State	Month	Event_Type	CZ_Name	NaT	NaT
2	NEW JERSEY	April	Thunderstorm Wind	GLOUCESTER	2017-04-06 15:09...	2017-04-06 15:...
3	FLORIDA	April	Tornado	LEE	2017-04-06 09:30...	2017-04-06 09:...
4	OHIO	April	Thunderstorm Wind	GREENE	2017-04-05 17:49...	2017-04-05 17:...
5	OHIO	April	Flood	CLERMONT	2017-04-16 17:59...	2017-04-16 19:...
6	NEBRASKA	April	Hail	CASS	2017-04-15 15:50...	2017-04-15 15:...
7	INDIANA	April	Flash Flood	SWITZERLAND	2017-04-29 09:15...	2017-04-29 11:...
8	VIRGINIA	April	Thunderstorm Wind	WESTMOREL...	2017-04-21 19:15...	2017-04-21 19:...
9	GULF OF ...	October	Marine Thunders...	ATCHAFALA...	2017-10-22 10:15...	2017-10-22 10:...
10	OHIO	April	Flash Flood	CLERMONT	2017-04-29 09:45...	2017-04-29 11:...
11	NEBRASKA	April	Thunderstorm Wind	BURT	2017-04-15 18:55...	2017-04-15 18:...
12	ARKANSAS	April	Hail	FRANKLIN	2017-04-26 07:57...	2017-04-26 07:...
13	OKLAHOMA	October	Hail	KIOWA	2017-10-21 15:20...	2017-10-21 15:...
14	ATLANTIC...	October	Marine Strong W...	DE BAY WA...	2017-10-24 02:24...	2017-10-24 02:...
15	ATLANTIC...	October	Marine High Wind	DE BAY WA...	2017-10-24 03:36...	2017-10-24 03:...
16	PENNSYLV...	March	Winter Weather	MONROE	2017-03-10 08:00...	2017-03-10 16:...
17	PENNSYLV...	March	Winter Weather	LOWER BUCKS	2017-03-10 08:00...	2017-03-10 16:...
18	PENNSYLV...	March	Winter Weather	WESTERN M...	2017-03-10 08:00...	2017-03-10 16:...
19	WISCONSIN	February	Winter Weather	ROCK	2017-02-24 16:00...	2017-02-25 06:...
20	WISCONSIN	February	Winter Weather	WALWORTH	2017-02-24 17:00...	2017-02-25 06:...
21	GULF OF ...	June	Marine Thunders...	COASTAL W...	2017-06-06 15:25...	2017-06-06 15:...
22	FLORIDA	June	Thunderstorm Wind	CHARLOTTE	2017-06-06 15:35...	2017-06-06 15:...
23	GULF OF ...	June	Marine Thunders...	ENGLEWOOD...	2017-06-07 08:12...	2017-06-07 08:...
24	GULF OF ...	June	Marine Thunders...	ENGLEWOOD...	2017-06-07 09:22...	2017-06-07 09:...
25	MONTANA	June	Hail	CUSTER	2017-06-20 21:20...	2017-06-20 21:...
26	MONTANA	June	Hail	TREASURE	2017-06-20 20:16...	2017-06-20 20:...
27	MONTANA	June	Thunderstorm Wind	YELLOWSTONE	2017-06-20 19:00...	2017-06-20 19:...
28	WISCONSIN	February	Winter Weather	WAUKESHA	2017-02-24 17:00...	2017-02-25 06:...
29	WISCONSIN	February	Winter Weather	MILWAUKEE	2017-02-24 19:00...	2017-02-25 06:...
30	WISCONSIN	February	Winter Weather	RACINE	2017-02-24 19:00...	2017-02-25 06:...
31	WISCONSIN	February	Winter Weather	KENOSHA	2017-02-24 19:00...	2017-02-25 06:...
32	GULF OF ...	June	Waterspout	ENGLEWOOD...	2017-06-04 09:02...	2017-06-04 09:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
33	GULF OF ...	June	Waterspout	TAMPA BAY	2017-06-04 11:05...	2017-06-04 11:...
34	GULF OF ...	June	Marine Thunders...	ENGLEWOOD...	2017-06-06 14:35...	2017-06-06 14:...
35	PENNSYLV...	March	Winter Weather	EASTERN M...	2017-03-10 08:00...	2017-03-10 16:...
36	WISCONSIN	February	Winter Weather	MARQUETTE	2017-02-24 00:00...	2017-02-25 06:...
37	GULF OF ...	June	Marine Thunders...	ENGLEWOOD...	2017-06-07 08:30...	2017-06-07 08:...
38	GULF OF ...	June	Marine Thunders...	CHARLOTTE...	2017-06-07 11:25...	2017-06-07 11:...
39	GULF OF ...	June	Marine Thunders...	COASTAL W...	2017-06-07 11:17...	2017-06-07 11:...
40	GULF OF ...	June	Marine Thunders...	CHARLOTTE...	2017-06-07 12:21...	2017-06-07 12:...
41	FLORIDA	June	Thunderstorm Wind	HILLSBORO...	2017-06-11 15:30...	2017-06-11 15:...
42	GULF OF ...	June	Marine Thunders...	CHARLOTTE...	2017-06-11 17:15...	2017-06-11 17:...
43	GULF OF ...	June	Marine Thunders...	TAMPA BAY	2017-06-14 14:55...	2017-06-14 14:...
44	FLORIDA	June	Flash Flood	LEON	2017-06-06 12:30...	2017-06-06 13:...
45	FLORIDA	June	Flash Flood	LEON	2017-06-07 15:55...	2017-06-07 17:...
46	FLORIDA	June	Flash Flood	LEON	2017-06-07 16:15...	2017-06-07 17:...
47	FLORIDA	June	Flash Flood	BAY	2017-06-21 09:00...	2017-06-21 11:...
48	FLORIDA	June	Flash Flood	WASHINGTON	2017-06-21 09:15...	2017-06-21 11:...
49	FLORIDA	June	Flood	WALTON	2017-06-22 05:00...	2017-06-23 05:...
50	FLORIDA	June	Flood	WALTON	2017-06-22 05:00...	2017-06-23 05:...
51	MISSOURI	June	Thunderstorm Wind	CHRISTIAN	2017-06-23 11:42...	2017-06-23 11:...
52	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-23 11:26...	2017-06-23 11:...
53	KANSAS	June	Hail	CRAWFORD	2017-06-17 04:20...	2017-06-17 04:...
54	KANSAS	June	Hail	CRAWFORD	2017-06-17 05:13...	2017-06-17 05:...
55	KANSAS	June	Thunderstorm Wind	CRAWFORD	2017-06-17 04:32...	2017-06-17 04:...
56	KANSAS	June	Thunderstorm Wind	CRAWFORD	2017-06-17 04:30...	2017-06-17 04:...
57	KANSAS	June	Thunderstorm Wind	CRAWFORD	2017-06-17 04:16...	2017-06-17 04:...
58	KANSAS	June	Hail	CHEROKEE	2017-06-17 05:39...	2017-06-17 05:...
59	MISSOURI	June	Thunderstorm Wind	TANEY	2017-06-23 12:25...	2017-06-23 12:...
60	MISSOURI	June	Thunderstorm Wind	STONE	2017-06-23 12:10...	2017-06-23 12:...
61	MISSOURI	June	Thunderstorm Wind	TANEY	2017-06-23 12:20...	2017-06-23 12:...
62	MISSOURI	June	Thunderstorm Wind	TANEY	2017-06-23 12:02...	2017-06-23 12:...
63	MISSOURI	June	Thunderstorm Wind	HOWELL	2017-06-23 13:10...	2017-06-23 13:...
64	MISSOURI	June	Heavy Rain	GREENE	2017-06-23 11:30...	2017-06-23 11:...
65	MISSOURI	June	Heavy Rain	GREENE	2017-06-23 11:49...	2017-06-23 11:...
66	MISSOURI	June	Flash Flood	GREENE	2017-06-01 18:15...	2017-06-01 19:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
67	MISSOURI	June	Flash Flood	GREENE	2017-06-01 19:00...	2017-06-01 20:...
68	MISSOURI	June	Hail	GREENE	2017-06-01 18:16...	2017-06-01 18:...
69	FLORIDA	June	Flood	WALTON	2017-06-22 05:00...	2017-06-23 05:...
70	FLORIDA	June	Flood	WALTON	2017-06-22 05:00...	2017-06-23 05:...
71	ATLANTIC...	June	Marine Thunders...	VOLUSIA-B...	2017-06-08 09:58...	2017-06-08 09:...
72	ATLANTIC...	June	Marine Thunders...	VOLUSIA-B...	2017-06-08 11:14...	2017-06-08 11:...
73	ATLANTIC...	June	Marine Thunders...	VOLUSIA-B...	2017-06-08 13:30...	2017-06-08 13:...
74	MISSOURI	June	Lightning	DOUGLAS	2017-06-23 12:32...	2017-06-23 12:...
75	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-23 11:30...	2017-06-23 11:...
76	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-23 11:29...	2017-06-23 11:...
77	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-23 11:36...	2017-06-23 11:...
78	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-23 11:25...	2017-06-23 11:...
79	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-23 11:45...	2017-06-23 11:...
80	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-01 17:53...	2017-06-01 17:...
81	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-01 18:13...	2017-06-01 18:...
82	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-01 18:10...	2017-06-01 18:...
83	MISSOURI	June	Thunderstorm Wind	GREENE	2017-06-01 18:15...	2017-06-01 18:...
84	KANSAS	June	Hail	CRAWFORD	2017-06-17 04:12...	2017-06-17 04:...
85	KANSAS	June	Hail	CRAWFORD	2017-06-17 04:16...	2017-06-17 04:...
86	KANSAS	June	Thunderstorm Wind	CHEROKEE	2017-06-17 05:34...	2017-06-17 05:...
87	KANSAS	June	Thunderstorm Wind	CRAWFORD	2017-06-17 05:10...	2017-06-17 05:...
88	KANSAS	June	Thunderstorm Wind	BOURBON	2017-06-17 02:38...	2017-06-17 02:...
89	GULF OF ...	June	Waterspout	ENGLEWOOD...	2017-06-14 15:30...	2017-06-14 15:...
90	FLORIDA	June	Thunderstorm Wind	CHARLOTTE	2017-06-19 11:55...	2017-06-19 11:...
91	GULF OF ...	June	Marine Thunders...	TAMPA BAY	2017-06-19 13:36...	2017-06-19 13:...
92	GULF OF ...	June	Marine Thunders...	TAMPA BAY	2017-06-19 13:43...	2017-06-19 13:...
93	GULF OF ...	June	Waterspout	ENGLEWOOD...	2017-06-27 07:00...	2017-06-27 07:...
94	ALABAMA	June	Thunderstorm Wind	GENEVA	2017-06-22 00:10...	2017-06-22 00:...
95	ALABAMA	June	Thunderstorm Wind	GENEVA	2017-06-30 12:42...	2017-06-30 12:...
96	KANSAS	June	Thunderstorm Wind	CRAWFORD	2017-06-17 05:10...	2017-06-17 05:...
97	KANSAS	June	Thunderstorm Wind	CRAWFORD	2017-06-17 06:12...	2017-06-17 06:...
98	KANSAS	June	Thunderstorm Wind	CHEROKEE	2017-06-17 06:29...	2017-06-17 06:...
99	KANSAS	June	Thunderstorm Wind	CHEROKEE	2017-06-17 06:05...	2017-06-17 06:...
100	KANSAS	June	Thunderstorm Wind	BOURBON	2017-06-17 22:50...	2017-06-17 22:...

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% We had only taken Damage of Property since other damages on investigatoing were almost negligi

% As mentioned above states were added to the consideration.

Events = Events(ismember(Events.State,{ 'ARKANSAS', 'KENTUCKY', 'LOUISIANA', 'MISSISSIPPI', 'NORTH C

Events = 10667×14 table

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	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	ARKANSAS	April	Hail	FRANKLIN	2017-04-26 07:57...	2017-04-26 07:...
2	TEXAS	May	Hail	HENDERSON	2017-05-03 14:06...	2017-05-03 14:...
3	NORTH CA...	June	Flash Flood	WAKE	2017-06-16 19:32...	2017-06-16 19:...
4	KENTUCKY	June	Flash Flood	KNOTT	2017-06-14 16:25...	2017-06-14 16:...
5	ARKANSAS	November	Drought	SEBASTIAN	2017-11-15 00:00...	2017-11-30 23:...
6	ARKANSAS	November	Drought	FRANKLIN	2017-11-15 00:00...	2017-11-30 23:...
7	ARKANSAS	November	Drought	CRAWFORD	2017-11-15 00:00...	2017-11-30 23:...
8	ARKANSAS	November	Drought	WASHINGTON	2017-11-15 00:00...	2017-11-30 23:...
9	ARKANSAS	November	Drought	MADISON	2017-11-15 00:00...	2017-11-30 23:...
10	TEXAS	January	Tornado	BOSQUE	2017-01-15 18:17...	2017-01-15 18:...
11	TEXAS	January	Thunderstorm Wind	DALLAS	2017-01-02 05:50...	2017-01-02 05:...
12	TEXAS	January	Thunderstorm Wind	LEON	2017-01-02 05:58...	2017-01-02 05:...
13	TEXAS	January	Thunderstorm Wind	ELLIS	2017-01-02 05:10...	2017-01-02 05:...
14	TEXAS	January	Thunderstorm Wind	LEON	2017-01-02 06:04...	2017-01-02 06:...
15	TEXAS	January	Thunderstorm Wind	RAINS	2017-01-02 06:30...	2017-01-02 06:...
16	TEXAS	January	Hail	JOHNSON	2017-01-15 20:06...	2017-01-15 20:...
17	TEXAS	January	Hail	TARRANT	2017-01-15 20:24...	2017-01-15 20:...
18	TEXAS	January	Thunderstorm Wind	TARRANT	2017-01-15 20:30...	2017-01-15 20:...
19	TEXAS	January	Flash Flood	JOHNSON	2017-01-15 20:30...	2017-01-15 20:...
20	TEXAS	January	Thunderstorm Wind	TARRANT	2017-01-15 20:55...	2017-01-15 20:...
21	TEXAS	January	Thunderstorm Wind	COLLIN	2017-01-15 21:30...	2017-01-15 21:...
22	TEXAS	January	Thunderstorm Wind	DALLAS	2017-01-15 21:39...	2017-01-15 21:...
23	TEXAS	January	Thunderstorm Wind	DALLAS	2017-01-15 21:40...	2017-01-15 21:...
24	TEXAS	January	Thunderstorm Wind	CORYELL	2017-01-02 03:55...	2017-01-02 03:...
25	MISSISSI...	April	Tornado	WARREN	2017-04-30 06:52...	2017-04-30 06:...
26	MISSISSI...	April	Thunderstorm Wind	MADISON	2017-04-30 07:36...	2017-04-30 07:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
27	TEXAS	January	Thunderstorm Wind	ANDERSON	2017-01-02 06:35...	2017-01-02 06:...
28	TEXAS	January	Thunderstorm Wind	COLLIN	2017-01-15 22:00...	2017-01-15 22:...
29	TEXAS	January	Thunderstorm Wind	HUNT	2017-01-15 23:20...	2017-01-15 23:...
30	TEXAS	January	Flood	TARRANT	2017-01-15 21:00...	2017-01-15 21:...
31	TEXAS	January	Hail	TARRANT	2017-01-15 20:07...	2017-01-15 20:...
32	TEXAS	January	Tornado	BOSQUE	2017-01-15 18:35...	2017-01-15 18:...
33	MISSISSI...	April	Thunderstorm Wind	NESHOBA	2017-04-26 22:25...	2017-04-26 22:...
34	MISSISSI...	April	Thunderstorm Wind	WARREN	2017-04-26 19:45...	2017-04-26 19:...
35	MISSISSI...	April	Thunderstorm Wind	YAZOO	2017-04-26 19:54...	2017-04-26 19:...
36	MISSISSI...	April	Thunderstorm Wind	WINSTON	2017-04-26 21:28...	2017-04-26 21:...
37	TEXAS	January	Thunderstorm Wind	HUNT	2017-01-02 06:30...	2017-01-02 06:...
38	TEXAS	January	Lightning	COLLIN	2017-01-02 05:55...	2017-01-02 05:...
39	TEXAS	January	Thunderstorm Wind	JOHNSON	2017-01-15 19:19...	2017-01-15 19:...
40	TEXAS	January	Thunderstorm Wind	DALLAS	2017-01-02 05:35...	2017-01-02 05:...
41	TEXAS	January	Thunderstorm Wind	KAUFMAN	2017-01-02 05:35...	2017-01-02 05:...
42	MISSISSI...	April	Strong Wind	WASHINGTON	2017-04-29 06:00...	2017-04-29 06:...
43	TEXAS	January	Thunderstorm Wind	MCLENNAN	2017-01-02 04:32...	2017-01-02 04:...
44	TEXAS	January	Thunderstorm Wind	HAMILTON	2017-01-02 03:29...	2017-01-02 03:...
45	TEXAS	January	Thunderstorm Wind	MCLENNAN	2017-01-02 04:25...	2017-01-02 04:...
46	TEXAS	January	Thunderstorm Wind	MCLENNAN	2017-01-02 04:31...	2017-01-02 04:...
47	TEXAS	January	Thunderstorm Wind	JOHNSON	2017-01-02 04:48...	2017-01-02 04:...
48	TEXAS	January	Thunderstorm Wind	NAVARRO	2017-01-02 05:45...	2017-01-02 05:...
49	TEXAS	January	Thunderstorm Wind	HILL	2017-01-02 04:50...	2017-01-02 04:...
50	TEXAS	January	Thunderstorm Wind	DALLAS	2017-01-02 05:15...	2017-01-02 05:...
51	LOUISIANA	April	Tornado	RICHLAND	2017-04-02 15:36...	2017-04-02 15:...
52	MISSISSI...	April	Lightning	FORREST	2017-04-30 10:25...	2017-04-30 10:...
53	MISSISSI...	April	Thunderstorm Wind	CARROLL	2017-04-26 19:36...	2017-04-26 19:...
54	MISSISSI...	April	Thunderstorm Wind	CARROLL	2017-04-26 19:45...	2017-04-26 19:...
55	LOUISIANA	April	Tornado	MOREHOUSE	2017-04-30 03:44...	2017-04-30 03:...
56	MISSISSI...	April	Tornado	MADISON	2017-04-30 07:54...	2017-04-30 07:...
57	MISSISSI...	April	Tornado	YAZOO	2017-04-30 07:51...	2017-04-30 07:...
58	MISSISSI...	April	Tornado	WARREN	2017-04-30 07:15...	2017-04-30 07:...
59	TEXAS	January	Drought	LAMAR	2017-01-01 00:00...	2017-01-31 00:...
60	TEXAS	January	Drought	FANNIN	2017-01-01 00:00...	2017-01-31 23:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
61	TEXAS	January	Drought	DELTA	2017-01-01 00:00...	2017-01-31 23:...
62	TEXAS	January	Thunderstorm Wind	JOHNSON	2017-01-15 19:25...	2017-01-15 19:...
63	TEXAS	January	Thunderstorm Wind	JOHNSON	2017-01-15 19:30...	2017-01-15 19:...
64	TEXAS	January	Thunderstorm Wind	JOHNSON	2017-01-15 19:46...	2017-01-15 19:...
65	TEXAS	January	Thunderstorm Wind	JOHNSON	2017-01-15 20:00...	2017-01-15 20:...
66	TEXAS	January	Thunderstorm Wind	NAVARRO	2017-01-02 05:20...	2017-01-02 05:...
67	MISSISSI...	April	Flash Flood	LAMAR	2017-04-30 11:46...	2017-04-30 13:...
68	MISSISSI...	April	Thunderstorm Wind	CARROLL	2017-04-30 08:35...	2017-04-30 08:...
69	MISSISSI...	April	Hail	LAMAR	2017-04-30 19:09...	2017-04-30 19:...
70	MISSISSI...	April	Flash Flood	JONES	2017-04-30 11:50...	2017-04-30 13:...
71	MISSISSI...	April	Thunderstorm Wind	JONES	2017-04-30 10:35...	2017-04-30 10:...
72	MISSISSI...	April	Hail	FORREST	2017-04-30 19:08...	2017-04-30 19:...
73	MISSISSI...	April	Thunderstorm Wind	YAZOO	2017-04-26 19:44...	2017-04-26 19:...
74	KENTUCKY	March	Thunderstorm Wind	MORGAN	2017-03-01 09:05...	2017-03-01 09:...
75	KENTUCKY	March	Thunderstorm Wind	BREATHITT	2017-03-01 09:20...	2017-03-01 09:...
76	KENTUCKY	March	Hail	MAGOFFIN	2017-03-01 09:26...	2017-03-01 09:...
77	TEXAS	May	Thunderstorm Wind	LA SALLE	2017-05-20 14:44...	2017-05-20 14:...
78	TEXAS	May	Hail	DUVAL	2017-05-20 17:40...	2017-05-20 17:...
79	TEXAS	March	Hail	LUBBOCK	2017-03-23 20:00...	2017-03-23 20:...
80	TEXAS	May	Hail	DUVAL	2017-05-20 17:45...	2017-05-20 17:...
81	ARKANSAS	June	Flash Flood	INDEPENDE...	2017-06-05 08:22...	2017-06-05 10:...
82	LOUISIANA	March	Thunderstorm Wind	SABINE	2017-03-29 16:18...	2017-03-29 16:...
83	NORTH CA...	March	Hail	PASQUOTANK	2017-03-31 19:27...	2017-03-31 19:...
84	NORTH CA...	March	Thunderstorm Wind	HALIFAX	2017-03-28 15:20...	2017-03-28 15:...
85	NORTH CA...	March	Hail	ROWAN	2017-03-21 20:17...	2017-03-21 20:...
86	ARKANSAS	June	Lightning	JEFFERSON	2017-06-04 15:20...	2017-06-04 15:...
87	ARKANSAS	June	Flash Flood	POPE	2017-06-05 03:00...	2017-06-05 05:...
88	ARKANSAS	June	Flash Flood	INDEPENDE...	2017-06-05 07:15...	2017-06-05 09:...
89	NORTH CA...	March	Hail	IREDELL	2017-03-01 17:32...	2017-03-01 17:...
90	TEXAS	May	Hail	DUVAL	2017-05-20 18:20...	2017-05-20 18:...
91	LOUISIANA	October	Thunderstorm Wind	VERMILION	2017-10-22 08:40...	2017-10-22 08:...
92	LOUISIANA	October	Thunderstorm Wind	RAPIDES	2017-10-22 06:42...	2017-10-22 06:...
93	LOUISIANA	October	Thunderstorm Wind	JEFFERSON...	2017-10-22 08:05...	2017-10-22 08:...
94	KENTUCKY	March	Thunderstorm Wind	LETCHER	2017-03-01 10:01...	2017-03-01 10:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
95	KENTUCKY	March	Thunderstorm Wind	PIKE	2017-03-01 10:01...	2017-03-01 10:...
96	LOUISIANA	October	Thunderstorm Wind	IBERIA	2017-10-22 00:25...	2017-10-22 00:...
97	ARKANSAS	June	Flash Flood	LINCOLN	2017-06-04 07:22...	2017-06-04 09:...
98	TEXAS	March	Hail	DENTON	2017-03-26 18:10...	2017-03-26 18:...
99	KENTUCKY	February	Thunderstorm Wind	GREENUP	2017-02-25 00:55...	2017-02-25 00:...
100	KENTUCKY	February	Thunderstorm Wind	GREENUP	2017-02-25 00:55...	2017-02-25 00:...

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```
Events = Events(ismember(Events.Month,{ 'August', 'September'}),:);
Events = Events(Events.Begin_Date_Time >= '2017-08-17 00:00:00' & Events.Begin_Date_Time < '2017-09-01 00:00:00');
```

Events = 578x14 table

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
2	MISSISSI...	September	Strong Wind	LOWNDES	2017-09-01 01:00...	2017-09-01 01:...
3	NORTH CA...	September	Flash Flood	WAKE	2017-09-01 17:35...	2017-09-01 18:...
4	NORTH CA...	September	Flash Flood	CUMBERLAND	2017-09-01 19:20...	2017-09-01 21:...
5	NORTH CA...	September	Hail	LEE	2017-09-01 15:20...	2017-09-01 15:...
6	TEXAS	August	Tropical Storm	FORT BEND	2017-08-26 00:00...	2017-08-30 00:...
7	NORTH CA...	September	Hail	WAYNE	2017-09-01 13:50...	2017-09-01 14:...
8	NORTH CA...	September	Thunderstorm Wind	RICHMOND	2017-09-01 13:35...	2017-09-01 13:...
9	NORTH CA...	September	Thunderstorm Wind	WAYNE	2017-09-01 14:10...	2017-09-01 14:...
10	NORTH CA...	September	Thunderstorm Wind	LEE	2017-09-01 14:52...	2017-09-01 14:...
11	NORTH CA...	September	Thunderstorm Wind	LEE	2017-09-01 15:00...	2017-09-01 15:...
12	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
13	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
14	NORTH CA...	September	Thunderstorm Wind	HARNETT	2017-09-01 15:45...	2017-09-01 15:...
15	NORTH CA...	September	Thunderstorm Wind	MOORE	2017-09-01 16:00...	2017-09-01 16:...
16	NORTH CA...	September	Thunderstorm Wind	HARNETT	2017-09-01 16:03...	2017-09-01 16:...
17	NORTH CA...	September	Thunderstorm Wind	JOHNSTON	2017-09-01 16:08...	2017-09-01 16:...
18	NORTH CA...	September	Thunderstorm Wind	HOKE	2017-09-01 16:40...	2017-09-01 16:...
19	NORTH CA...	September	Thunderstorm Wind	WAKE	2017-09-01 17:21...	2017-09-01 17:...
20	NORTH CA...	September	Thunderstorm Wind	FRANKLIN	2017-09-01 17:50...	2017-09-01 17:...
21	NORTH CA...	September	Hail	WAKE	2017-09-01 16:03...	2017-09-01 16:...
22	NORTH CA...	September	Hail	WAKE	2017-09-01 16:30...	2017-09-01 16:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
23	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
24	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
25	KENTUCKY	September	Flash Flood	TODD	2017-09-01 03:47...	2017-09-01 12:...
26	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
27	TEXAS	August	Thunderstorm Wind	EL PASO	2017-08-25 18:10...	2017-08-25 18:...
28	TEXAS	August	Flash Flood	EL PASO	2017-08-25 18:48...	2017-08-25 20:...
29	MISSISSI...	August	Thunderstorm Wind	LAMAR	2017-08-30 10:23...	2017-08-30 10:...
30	MISSISSI...	August	High Wind	WASHINGTON	2017-08-31 15:00...	2017-08-31 15:...
31	MISSISSI...	August	Strong Wind	GRENADA	2017-08-31 20:40...	2017-08-31 20:...
32	TEXAS	August	Flash Flood	HARDIN	2017-08-27 12:40...	2017-08-30 16:...
33	TEXAS	August	Flash Flood	JASPER	2017-08-29 22:29...	2017-08-30 16:...
34	TEXAS	August	Flash Flood	NEWTON	2017-08-29 22:29...	2017-08-30 16:...
35	TEXAS	August	Flash Flood	FORT BEND	2017-08-26 00:45...	2017-08-26 02:...
36	TENNESSEE	September	Heavy Rain	ROBERTSON	2017-09-02 07:00...	2017-09-02 07:...
37	TENNESSEE	September	Heavy Rain	MONTGOMERY	2017-09-02 15:30...	2017-09-02 15:...
38	TENNESSEE	September	Heavy Rain	ROBERTSON	2017-09-02 07:00...	2017-09-02 07:...
39	NORTH CA...	September	Thunderstorm Wind	RANDOLPH	2017-09-01 14:45...	2017-09-01 14:...
40	NORTH CA...	September	Flash Flood	MECKLENBURG	2017-09-01 18:30...	2017-09-01 20:...
41	NORTH CA...	September	Heavy Rain	IREDELL	2017-09-01 16:30...	2017-09-01 17:...
42	ARKANSAS	August	Heat	LITTLE RI...	2017-08-19 09:00...	2017-08-20 18:...
43	ARKANSAS	August	Heat	HOWARD	2017-08-19 09:00...	2017-08-20 18:...
44	ARKANSAS	August	Flash Flood	WOODRUFF	2017-08-31 07:15...	2017-08-31 09:...
45	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
46	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
47	MISSISSI...	August	Flood	LAMAR	2017-08-30 09:43...	2017-08-30 10:...
48	MISSISSI...	August	Thunderstorm Wind	LOWNDES	2017-08-31 15:54...	2017-08-31 15:...
49	MISSISSI...	August	Strong Wind	ATTALA	2017-08-31 18:10...	2017-08-31 18:...
50	MISSISSI...	August	Thunderstorm Wind	LOWNDES	2017-08-31 14:14...	2017-08-31 14:...
51	MISSISSI...	August	Thunderstorm Wind	LOWNDES	2017-08-31 14:59...	2017-08-31 14:...
52	TEXAS	August	Thunderstorm Wind	JASPER	2017-08-30 22:45...	2017-08-30 22:...
53	TEXAS	August	Flood	ORANGE	2017-08-30 16:00...	2017-08-31 23:...
54	ARKANSAS	August	Flash Flood	PULASKI	2017-08-18 22:30...	2017-08-18 23:...
55	TENNESSEE	August	Flash Flood	DAVIDSON	2017-08-31 18:00...	2017-08-31 23:...
56	TEXAS	August	Flash Flood	MONTGOMERY	2017-08-26 08:00...	2017-08-26 11:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
57	NORTH CA...	September	Flash Flood	JOHNSTON	2017-09-01 18:15...	2017-09-01 19:...
58	NORTH CA...	September	Thunderstorm Wind	MOORE	2017-09-01 14:10...	2017-09-01 14:...
59	NORTH CA...	September	Hail	HARNETT	2017-09-01 16:05...	2017-09-01 16:...
60	KENTUCKY	August	Thunderstorm Wind	MONTGOMERY	2017-08-22 13:12...	2017-08-22 13:...
61	KENTUCKY	August	Thunderstorm Wind	ELLIOTT	2017-08-22 14:06...	2017-08-22 14:...
62	ARKANSAS	August	Heat	HEMPSTEAD	2017-08-19 09:00...	2017-08-20 18:...
63	ARKANSAS	August	Heat	NEVADA	2017-08-19 09:00...	2017-08-20 18:...
64	ARKANSAS	August	Heat	MILLER	2017-08-19 09:00...	2017-08-20 18:...
65	ARKANSAS	August	Heat	LAFAYETTE	2017-08-19 09:00...	2017-08-20 18:...
66	ARKANSAS	August	Heat	COLUMBIA	2017-08-19 09:00...	2017-08-20 18:...
67	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
68	KENTUCKY	August	Thunderstorm Wind	PENDLETON	2017-08-17 14:54...	2017-08-17 15:...
69	TENNESSEE	August	Tornado	PERRY	2017-08-31 15:19...	2017-08-31 15:...
70	TENNESSEE	August	Tornado	MAURY	2017-08-31 16:11...	2017-08-31 16:...
71	TENNESSEE	August	Thunderstorm Wind	DAVIDSON	2017-08-31 16:58...	2017-08-31 16:...
72	TEXAS	August	Flash Flood	JEFFERSON	2017-08-27 07:12...	2017-08-30 16:...
73	MISSISSI...	August	Tornado	HARRISON	2017-08-30 00:00...	2017-08-30 00:...
74	TEXAS	August	Flash Flood	GALVESTON	2017-08-26 07:00...	2017-08-29 22:...
75	ARKANSAS	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
76	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
77	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
78	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
79	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
80	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
81	LOUISIANA	August	Tropical Storm	SABINE	2017-08-30 16:45...	2017-08-30 22:...
82	TEXAS	August	Flash Flood	ANGELINA	2017-08-30 17:00...	2017-08-30 19:...
83	TEXAS	August	Flash Flood	ANGELINA	2017-08-29 17:02...	2017-08-29 21:...
84	TEXAS	August	Flash Flood	ANGELINA	2017-08-29 01:45...	2017-08-29 19:...
85	TEXAS	August	Flash Flood	ANGELINA	2017-08-29 01:50...	2017-08-29 19:...
86	TENNESSEE	August	Tornado	DAVIDSON	2017-08-31 22:21...	2017-08-31 22:...
87	TENNESSEE	August	Tornado	DAVIDSON	2017-08-31 22:47...	2017-08-31 22:...
88	TEXAS	August	Flash Flood	SAN JACINTO	2017-08-27 13:00...	2017-08-28 03:...
89	KENTUCKY	August	Thunderstorm Wind	FAYETTE	2017-08-22 17:01...	2017-08-22 17:...
90	KENTUCKY	August	Thunderstorm Wind	FAYETTE	2017-08-22 17:01...	2017-08-22 17:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
91	TEXAS	August	Flash Flood	GALVESTON	2017-08-26 20:45...	2017-08-29 20:...
92	NORTH CA...	September	Hail	WAKE	2017-09-01 15:55...	2017-09-01 16:...
93	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
94	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
95	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
96	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
97	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
98	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
99	LOUISIANA	August	Tropical Storm	NATCHITOC...	2017-08-30 16:45...	2017-08-30 22:...
100	LOUISIANA	August	Tropical Storm	UNION	2017-08-30 16:45...	2017-08-30 22:...

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Events = sortrows(Events, 'Month')
```

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Events = 578x14 table
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	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
2	TEXAS	August	Tropical Storm	FORT BEND	2017-08-26 00:00...	2017-08-30 00:...
3	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
4	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
5	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
6	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
7	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
8	TEXAS	August	Thunderstorm Wind	EL PASO	2017-08-25 18:10...	2017-08-25 18:...
9	TEXAS	August	Flash Flood	EL PASO	2017-08-25 18:48...	2017-08-25 20:...
10	MISSISSI...	August	Thunderstorm Wind	LAMAR	2017-08-30 10:23...	2017-08-30 10:...
11	MISSISSI...	August	High Wind	WASHINGTON	2017-08-31 15:00...	2017-08-31 15:...
12	MISSISSI...	August	Strong Wind	GRENADA	2017-08-31 20:40...	2017-08-31 20:...
13	TEXAS	August	Flash Flood	HARDIN	2017-08-27 12:40...	2017-08-30 16:...
14	TEXAS	August	Flash Flood	JASPER	2017-08-29 22:29...	2017-08-30 16:...
15	TEXAS	August	Flash Flood	NEWTON	2017-08-29 22:29...	2017-08-30 16:...
16	TEXAS	August	Flash Flood	FORT BEND	2017-08-26 00:45...	2017-08-26 02:...
17	ARKANSAS	August	Heat	LITTLE RI...	2017-08-19 09:00...	2017-08-20 18:...
18	ARKANSAS	August	Heat	HOWARD	2017-08-19 09:00...	2017-08-20 18:...
19	ARKANSAS	August	Flash Flood	WOODRUFF	2017-08-31 07:15...	2017-08-31 09:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
20	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
21	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
22	MISSISSI...	August	Flood	LAMAR	2017-08-30 09:43...	2017-08-30 10:...
23	MISSISSI...	August	Thunderstorm Wind	LOWNDES	2017-08-31 15:54...	2017-08-31 15:...
24	MISSISSI...	August	Strong Wind	ATTALA	2017-08-31 18:10...	2017-08-31 18:...
25	MISSISSI...	August	Thunderstorm Wind	LOWNDES	2017-08-31 14:14...	2017-08-31 14:...
26	MISSISSI...	August	Thunderstorm Wind	LOWNDES	2017-08-31 14:59...	2017-08-31 14:...
27	TEXAS	August	Thunderstorm Wind	JASPER	2017-08-30 22:45...	2017-08-30 22:...
28	TEXAS	August	Flood	ORANGE	2017-08-30 16:00...	2017-08-31 23:...
29	ARKANSAS	August	Flash Flood	PULASKI	2017-08-18 22:30...	2017-08-18 23:...
30	TENNESSEE	August	Flash Flood	DAVIDSON	2017-08-31 18:00...	2017-08-31 23:...
31	TEXAS	August	Flash Flood	MONTGOMERY	2017-08-26 08:00...	2017-08-26 11:...
32	KENTUCKY	August	Thunderstorm Wind	MONTGOMERY	2017-08-22 13:12...	2017-08-22 13:...
33	KENTUCKY	August	Thunderstorm Wind	ELLIOTT	2017-08-22 14:06...	2017-08-22 14:...
34	ARKANSAS	August	Heat	HEMPSTEAD	2017-08-19 09:00...	2017-08-20 18:...
35	ARKANSAS	August	Heat	NEVADA	2017-08-19 09:00...	2017-08-20 18:...
36	ARKANSAS	August	Heat	MILLER	2017-08-19 09:00...	2017-08-20 18:...
37	ARKANSAS	August	Heat	LAFAYETTE	2017-08-19 09:00...	2017-08-20 18:...
38	ARKANSAS	August	Heat	COLUMBIA	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
40	KENTUCKY	August	Thunderstorm Wind	PENDLETON	2017-08-17 14:54...	2017-08-17 15:...
41	TENNESSEE	August	Tornado	PERRY	2017-08-31 15:19...	2017-08-31 15:...
42	TENNESSEE	August	Tornado	MAURY	2017-08-31 16:11...	2017-08-31 16:...
43	TENNESSEE	August	Thunderstorm Wind	DAVIDSON	2017-08-31 16:58...	2017-08-31 16:...
44	TEXAS	August	Flash Flood	JEFFERSON	2017-08-27 07:12...	2017-08-30 16:...
45	MISSISSI...	August	Tornado	HARRISON	2017-08-30 00:00...	2017-08-30 00:...
46	TEXAS	August	Flash Flood	GALVESTON	2017-08-26 07:00...	2017-08-29 22:...
47	ARKANSAS	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
48	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
49	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
50	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
51	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
52	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
53	LOUISIANA	August	Tropical Storm	SABINE	2017-08-30 16:45...	2017-08-30 22:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
54	TEXAS	August	Flash Flood	ANGELINA	2017-08-30 17:00...	2017-08-30 19:...
55	TEXAS	August	Flash Flood	ANGELINA	2017-08-29 17:02...	2017-08-29 21:...
56	TEXAS	August	Flash Flood	ANGELINA	2017-08-29 01:45...	2017-08-29 19:...
57	TEXAS	August	Flash Flood	ANGELINA	2017-08-29 01:50...	2017-08-29 19:...
58	TENNESSEE	August	Tornado	DAVIDSON	2017-08-31 22:21...	2017-08-31 22:...
59	TENNESSEE	August	Tornado	DAVIDSON	2017-08-31 22:47...	2017-08-31 22:...
60	TEXAS	August	Flash Flood	SAN JACINTO	2017-08-27 13:00...	2017-08-28 03:...
61	KENTUCKY	August	Thunderstorm Wind	FAYETTE	2017-08-22 17:01...	2017-08-22 17:...
62	KENTUCKY	August	Thunderstorm Wind	FAYETTE	2017-08-22 17:01...	2017-08-22 17:...
63	TEXAS	August	Flash Flood	GALVESTON	2017-08-26 20:45...	2017-08-29 20:...
64	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
65	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
66	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
67	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
68	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
69	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
70	LOUISIANA	August	Tropical Storm	NATCHITOC...	2017-08-30 16:45...	2017-08-30 22:...
71	LOUISIANA	August	Tropical Storm	UNION	2017-08-30 16:45...	2017-08-30 22:...
72	TEXAS	August	Flash Flood	ANGELINA	2017-08-29 05:40...	2017-08-29 17:...
73	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
74	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
75	TENNESSEE	August	Strong Wind	DAVIDSON	2017-08-31 20:00...	2017-08-31 23:...
76	TENNESSEE	August	Strong Wind	DICKSON	2017-08-31 20:00...	2017-08-31 23:...
77	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
78	TEXAS	August	Flash Flood	GALVESTON	2017-08-26 10:00...	2017-08-26 13:...
79	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
80	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
81	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
82	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
83	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
84	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
85	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
86	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
87	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
88	TEXAS	August	Flash Flood	SABINE	2017-08-30 12:05...	2017-08-31 02:...
89	TEXAS	August	Flash Flood	SAN AUGUS...	2017-08-30 12:12...	2017-08-31 02:...
90	TEXAS	August	Flash Flood	SABINE	2017-08-30 13:01...	2017-08-31 02:...
91	TEXAS	August	Flash Flood	SABINE	2017-08-30 14:09...	2017-08-31 02:...
92	TEXAS	August	Flash Flood	ANGELINA	2017-08-30 15:38...	2017-08-30 19:...
93	TEXAS	August	Flash Flood	ANGELINA	2017-08-30 18:42...	2017-08-30 19:...
94	TEXAS	August	Flash Flood	ANGELINA	2017-08-30 18:42...	2017-08-30 19:...
95	TEXAS	August	Flash Flood	SABINE	2017-08-30 18:42...	2017-08-31 02:...
96	TEXAS	August	Flash Flood	SABINE	2017-08-30 18:42...	2017-08-31 02:...
97	TEXAS	August	Flash Flood	SABINE	2017-08-30 18:42...	2017-08-31 02:...
98	TEXAS	August	Flash Flood	SABINE	2017-08-30 18:42...	2017-08-31 02:...
99	TEXAS	August	Flash Flood	SABINE	2017-08-30 18:42...	2017-08-31 02:...
100	TEXAS	August	Flash Flood	ANGELINA	2017-08-30 17:00...	2017-08-30 19:...

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Events = sortrows(Events, 'Begin_Date_Time')
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Events = 578x14 table
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	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	KENTUCKY	August	Thunderstorm Wind	PENDLETON	2017-08-17 14:54...	2017-08-17 15:...
12	NORTH CA...	August	Thunderstorm Wind	FRANKLIN	2017-08-17 15:30...	2017-08-17 15:...
13	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
14	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
15	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
16	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:28...	2017-08-17 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
17	NORTH CA...	August	Lightning	WILKES	2017-08-17 18:28...	2017-08-17 18:...
18	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
19	NORTH CA...	August	Lightning	WILKES	2017-08-17 18:43...	2017-08-17 18:...
20	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:45...	2017-08-17 18:...
21	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:53...	2017-08-17 18:...
22	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:53...	2017-08-17 18:...
23	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
24	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
25	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
26	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
27	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
28	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
29	ARKANSAS	August	Hail	BENTON	2017-08-18 16:22...	2017-08-18 16:...
30	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:28...	2017-08-18 17:...
31	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:42...	2017-08-18 17:...
32	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:53...	2017-08-18 17:...
33	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:53...	2017-08-18 17:...
34	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:53...	2017-08-18 17:...
35	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:55...	2017-08-18 17:...
36	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:55...	2017-08-18 17:...
37	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:56...	2017-08-18 17:...
38	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:56...	2017-08-18 17:...
39	ARKANSAS	August	Thunderstorm Wind	BOONE	2017-08-18 18:03...	2017-08-18 18:...
40	ARKANSAS	August	Thunderstorm Wind	NEWTON	2017-08-18 18:13...	2017-08-18 18:...
41	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 18:13...	2017-08-18 18:...
42	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 18:19...	2017-08-18 18:...
43	ARKANSAS	August	Hail	FRANKLIN	2017-08-18 18:40...	2017-08-18 18:...
44	ARKANSAS	August	Thunderstorm Wind	LOGAN	2017-08-18 18:55...	2017-08-18 18:...
45	ARKANSAS	August	Thunderstorm Wind	LOGAN	2017-08-18 19:10...	2017-08-18 19:...
46	ARKANSAS	August	Thunderstorm Wind	LOGAN	2017-08-18 19:20...	2017-08-18 19:...
47	ARKANSAS	August	Thunderstorm Wind	YELL	2017-08-18 20:23...	2017-08-18 20:...
48	ARKANSAS	August	Flash Flood	PULASKI	2017-08-18 22:30...	2017-08-18 23:...
49	KENTUCKY	August	Hail	WEBSTER	2017-08-19 08:15...	2017-08-19 08:...
50	ARKANSAS	August	Heat	LITTLE RI...	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
51	ARKANSAS	August	Heat	HOWARD	2017-08-19 09:00...	2017-08-20 18:...
52	ARKANSAS	August	Heat	HEMPSTEAD	2017-08-19 09:00...	2017-08-20 18:...
53	ARKANSAS	August	Heat	NEVADA	2017-08-19 09:00...	2017-08-20 18:...
54	ARKANSAS	August	Heat	MILLER	2017-08-19 09:00...	2017-08-20 18:...
55	ARKANSAS	August	Heat	LAFAYETTE	2017-08-19 09:00...	2017-08-20 18:...
56	ARKANSAS	August	Heat	COLUMBIA	2017-08-19 09:00...	2017-08-20 18:...
57	ARKANSAS	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
58	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
59	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
60	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
61	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
62	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
63	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
64	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
65	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
66	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
67	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
68	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
69	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
70	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
71	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
72	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
73	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
74	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
75	ARKANSAS	August	Heat	SEVIER	2017-08-19 09:00...	2017-08-20 18:...
76	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
77	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
78	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
79	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
80	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
81	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
82	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
83	ARKANSAS	August	Hail	BAXTER	2017-08-19 15:05...	2017-08-19 15:...
84	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
85	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
86	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
87	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
88	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
89	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
90	MISSISSI...	August	Heat	DE SOTO	2017-08-20 10:00...	2017-08-20 15:...
91	MISSISSI...	August	Heat	TUNICA	2017-08-20 10:00...	2017-08-20 15:...
92	MISSISSI...	August	Heat	TATE	2017-08-20 10:00...	2017-08-20 15:...
93	MISSISSI...	August	Heat	COAHOMA	2017-08-20 10:00...	2017-08-20 15:...
94	MISSISSI...	August	Heat	QUITMAN	2017-08-20 10:00...	2017-08-20 15:...
95	MISSISSI...	August	Heat	PANOLA	2017-08-20 10:00...	2017-08-20 15:...
96	MISSISSI...	August	Heat	TALLAHATC...	2017-08-20 10:00...	2017-08-20 15:...
97	MISSISSI...	August	Heat	YALOBUSHA	2017-08-20 10:00...	2017-08-20 15:...
98	TENNESSEE	August	Heat	SHELBY	2017-08-20 10:00...	2017-08-20 15:...
99	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
100	ARKANSAS	August	Heat	POINSETT	2017-08-21 10:00...	2017-08-21 15:...

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```
cc = groupsummary(Events, "State")
```

cc = 7×2 table

	State	GroupCount
1	ARKANSAS	53
2	KENTUCKY	20
3	LOUISIANA	86
4	MISSISSI...	39
5	NORTH CA...	59
6	TENNESSEE	46
7	TEXAS	275

```
cc = sortrows(cc, 'GroupCount', 'descend')
```

cc = 2×2 table

	State	GroupCount
1	TEXAS	275
2	LOUISIANA	86

	State	GroupCount
3	NORTH CA...	59
4	ARKANSAS	53
5	TENNESSEE	46
6	MISSISSI...	39
7	KENTUCKY	20

```
% Visualize raw data
```

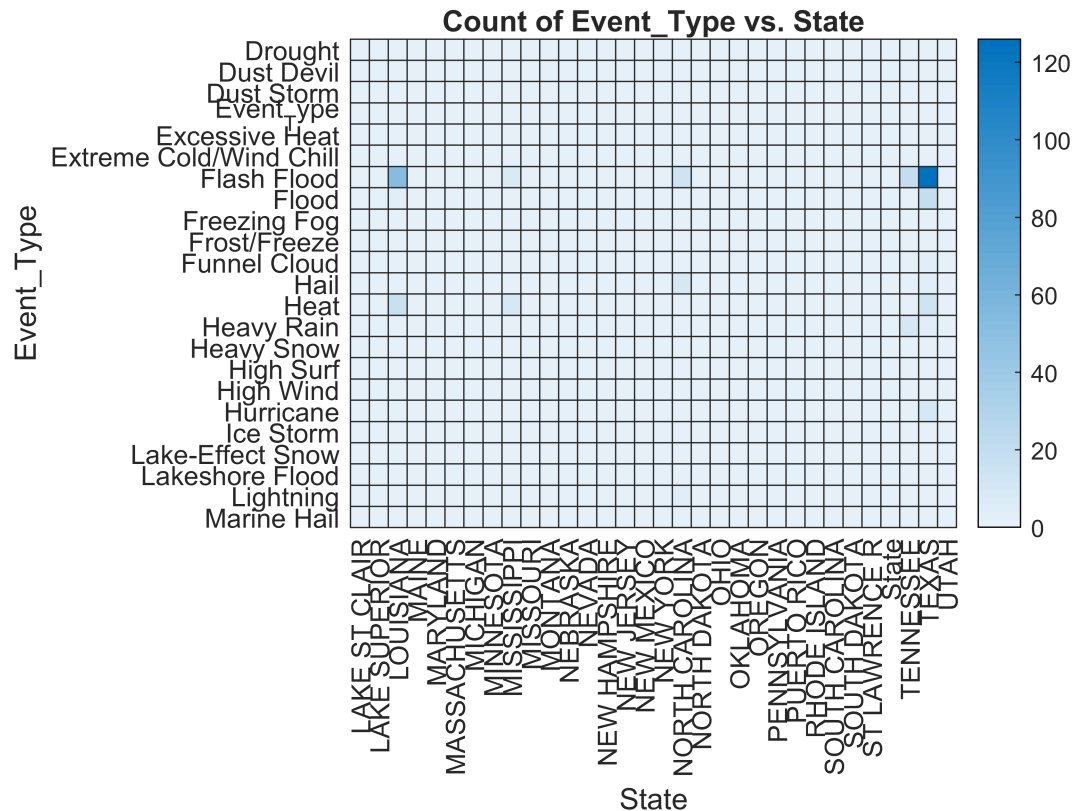
```
% Create a heat map to look at the frequency of each event type by month.
```

```
% Count of events by type and which state since we have considered only 2 Months
```

```
heatmap(Events, "State", "Event_Type");
```

```
xlim({'LAKE ST CLAIR','UTAH'})
```

```
ylim({'Drought','Marine Hail'})
```



```
% Clearly The Impacted State by Harvey could be seen.
```

Two States Most Impacted by Harvey

Clearly From the Heatmap Graph of No. of Event_Type vs State shows that two most impacted states by Harvey are:

1. TEXAS majorly affected by Flash Flood
2. LOUISIANA majorly affected by Flash Flood

Table of Events for Two Most Impacted States

% Few rows of events that include 2 most affected states i.e Texas and Louisiana
 ImpactedState = Events

ImpactedState = 578x14 table

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	KENTUCKY	August	Thunderstorm Wind	PENDLETON	2017-08-17 14:54...	2017-08-17 15:...
12	NORTH CA...	August	Thunderstorm Wind	FRANKLIN	2017-08-17 15:30...	2017-08-17 15:...
13	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
14	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
15	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
16	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:28...	2017-08-17 18:...
17	NORTH CA...	August	Lightning	WILKES	2017-08-17 18:28...	2017-08-17 18:...
18	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
19	NORTH CA...	August	Lightning	WILKES	2017-08-17 18:43...	2017-08-17 18:...
20	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:45...	2017-08-17 18:...
21	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:53...	2017-08-17 18:...
22	NORTH CA...	August	Thunderstorm Wind	WILKES	2017-08-17 18:53...	2017-08-17 18:...
23	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
24	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
25	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
26	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
27	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
28	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
29	ARKANSAS	August	Hail	BENTON	2017-08-18 16:22...	2017-08-18 16:...
30	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:28...	2017-08-18 17:...
31	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:42...	2017-08-18 17:...
32	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:53...	2017-08-18 17:...
33	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:53...	2017-08-18 17:...
34	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:53...	2017-08-18 17:...
35	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:55...	2017-08-18 17:...
36	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:55...	2017-08-18 17:...
37	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 17:56...	2017-08-18 17:...
38	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 17:56...	2017-08-18 17:...
39	ARKANSAS	August	Thunderstorm Wind	BOONE	2017-08-18 18:03...	2017-08-18 18:...
40	ARKANSAS	August	Thunderstorm Wind	NEWTON	2017-08-18 18:13...	2017-08-18 18:...
41	ARKANSAS	August	Hail	WASHINGTON	2017-08-18 18:13...	2017-08-18 18:...
42	ARKANSAS	August	Thunderstorm Wind	WASHINGTON	2017-08-18 18:19...	2017-08-18 18:...
43	ARKANSAS	August	Hail	FRANKLIN	2017-08-18 18:40...	2017-08-18 18:...
44	ARKANSAS	August	Thunderstorm Wind	LOGAN	2017-08-18 18:55...	2017-08-18 18:...
45	ARKANSAS	August	Thunderstorm Wind	LOGAN	2017-08-18 19:10...	2017-08-18 19:...
46	ARKANSAS	August	Thunderstorm Wind	LOGAN	2017-08-18 19:20...	2017-08-18 19:...
47	ARKANSAS	August	Thunderstorm Wind	YELL	2017-08-18 20:23...	2017-08-18 20:...
48	ARKANSAS	August	Flash Flood	PULASKI	2017-08-18 22:30...	2017-08-18 23:...
49	KENTUCKY	August	Hail	WEBSTER	2017-08-19 08:15...	2017-08-19 08:...
50	ARKANSAS	August	Heat	LITTLE RI...	2017-08-19 09:00...	2017-08-20 18:...
51	ARKANSAS	August	Heat	HOWARD	2017-08-19 09:00...	2017-08-20 18:...
52	ARKANSAS	August	Heat	HEMPSTEAD	2017-08-19 09:00...	2017-08-20 18:...
53	ARKANSAS	August	Heat	NEVADA	2017-08-19 09:00...	2017-08-20 18:...
54	ARKANSAS	August	Heat	MILLER	2017-08-19 09:00...	2017-08-20 18:...
55	ARKANSAS	August	Heat	LAFAYETTE	2017-08-19 09:00...	2017-08-20 18:...
56	ARKANSAS	August	Heat	COLUMBIA	2017-08-19 09:00...	2017-08-20 18:...
57	ARKANSAS	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
58	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
59	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
60	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
61	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
62	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
63	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
64	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
65	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
66	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
67	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
68	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
69	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
70	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
71	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
72	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
73	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
74	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
75	ARKANSAS	August	Heat	SEVIER	2017-08-19 09:00...	2017-08-20 18:...
76	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
77	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
78	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
79	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
80	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
81	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
82	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
83	ARKANSAS	August	Hail	BAXTER	2017-08-19 15:05...	2017-08-19 15:...
84	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
85	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
86	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
87	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
88	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
89	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
90	MISSISSI...	August	Heat	DE SOTO	2017-08-20 10:00...	2017-08-20 15:...
91	MISSISSI...	August	Heat	TUNICA	2017-08-20 10:00...	2017-08-20 15:...
92	MISSISSI...	August	Heat	TATE	2017-08-20 10:00...	2017-08-20 15:...
93	MISSISSI...	August	Heat	COAHOMA	2017-08-20 10:00...	2017-08-20 15:...
94	MISSISSI...	August	Heat	QUITMAN	2017-08-20 10:00...	2017-08-20 15:...
95	MISSISSI...	August	Heat	PANOLA	2017-08-20 10:00...	2017-08-20 15:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
96	MISSISSI...	August	Heat	TALLAHATC...	2017-08-20 10:00...	2017-08-20 15:...
97	MISSISSI...	August	Heat	YALOBUSHA	2017-08-20 10:00...	2017-08-20 15:...
98	TENNESSEE	August	Heat	SHELBY	2017-08-20 10:00...	2017-08-20 15:...
99	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
100	ARKANSAS	August	Heat	POINSETT	2017-08-21 10:00...	2017-08-21 15:...

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```
ImpactedState = ImpactedState(ismember(ImpactedState.State,{'LOUISIANA','TEXAS'}),:)
```

ImpactedState = 361×14 table

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...
77	TEXAS	August	Tropical Storm	GRIMES	2017-08-25 12:00...	2017-08-29 12:...
78	TEXAS	August	Tropical Storm	WASHINGTON	2017-08-25 12:00...	2017-08-29 12:...
79	TEXAS	August	Tropical Storm	BRAZOS	2017-08-25 12:00...	2017-08-29 12:...
80	TEXAS	August	Tropical Storm	BURLESON	2017-08-25 12:00...	2017-08-29 12:...
81	TEXAS	August	Tropical Storm	MADISON	2017-08-25 12:00...	2017-08-29 12:...
82	TEXAS	August	Tropical Storm	LIBERTY	2017-08-25 12:00...	2017-08-30 00:...
83	TEXAS	August	Tropical Storm	MATAGORDA	2017-08-25 12:00...	2017-08-29 12:...
84	TEXAS	August	Tropical Storm	JACKSON	2017-08-25 12:00...	2017-08-29 12:...
85	TEXAS	August	Tornado	GALVESTON	2017-08-25 13:18...	2017-08-25 13:...
86	TEXAS	August	Tornado	BRAZORIA	2017-08-25 14:30...	2017-08-25 14:...
87	TEXAS	August	Storm Surge/Tide	NUECES	2017-08-25 15:00...	2017-08-26 18:...
88	TEXAS	August	Storm Surge/Tide	CALHOUN	2017-08-25 15:00...	2017-08-27 00:...
89	TEXAS	August	Storm Surge/Tide	ARANSAS	2017-08-25 15:00...	2017-08-26 21:...
90	TEXAS	August	Tornado	MATAGORDA	2017-08-25 15:08...	2017-08-25 15:...
91	TEXAS	August	Tornado	CALHOUN	2017-08-25 15:14...	2017-08-25 15:...
92	TEXAS	August	Hurricane	NUECES	2017-08-25 17:00...	2017-08-26 12:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
93	TEXAS	August	Hurricane	ARANSAS	2017-08-25 17:00...	2017-08-26 12:...
94	TEXAS	August	Tornado	BRAZORIA	2017-08-25 17:11...	2017-08-25 17:...
95	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
96	TEXAS	August	Tropical Storm	KLEBERG	2017-08-25 18:00...	2017-08-26 15:...
97	TEXAS	August	Tropical Storm	JIM WELLS	2017-08-25 18:00...	2017-08-26 12:...
98	TEXAS	August	Hurricane	SAN PATRI...	2017-08-25 18:00...	2017-08-26 12:...
99	TEXAS	August	Hurricane	CALHOUN	2017-08-25 18:00...	2017-08-26 12:...
100	TEXAS	August	Storm Surge/Tide	SAN PATRI...	2017-08-25 18:00...	2017-08-25 18:...

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Visualizations

Figure of Event Types:

Figure showing the type and number of occurrences for events related to Harvey in the two states-

```
% Visualize refined data
% Create a heat map to look at the frequency of each event type by month.
% Count of events by type and which state since we have considered only 2 Months
% heatmap(ImpactedState, "State" , "Event_Type");
% Visualize raw data
% Create a heat map to look at the frequency of each event type by month.

% Count of events by type and which state since we have considered only 2 Months
heatmap(Events, "State" , "Event_Type");
xlim({'LAKE ST CLAIR', 'UTAH'})
ylim({'Drought', 'Marine Hail'})
```

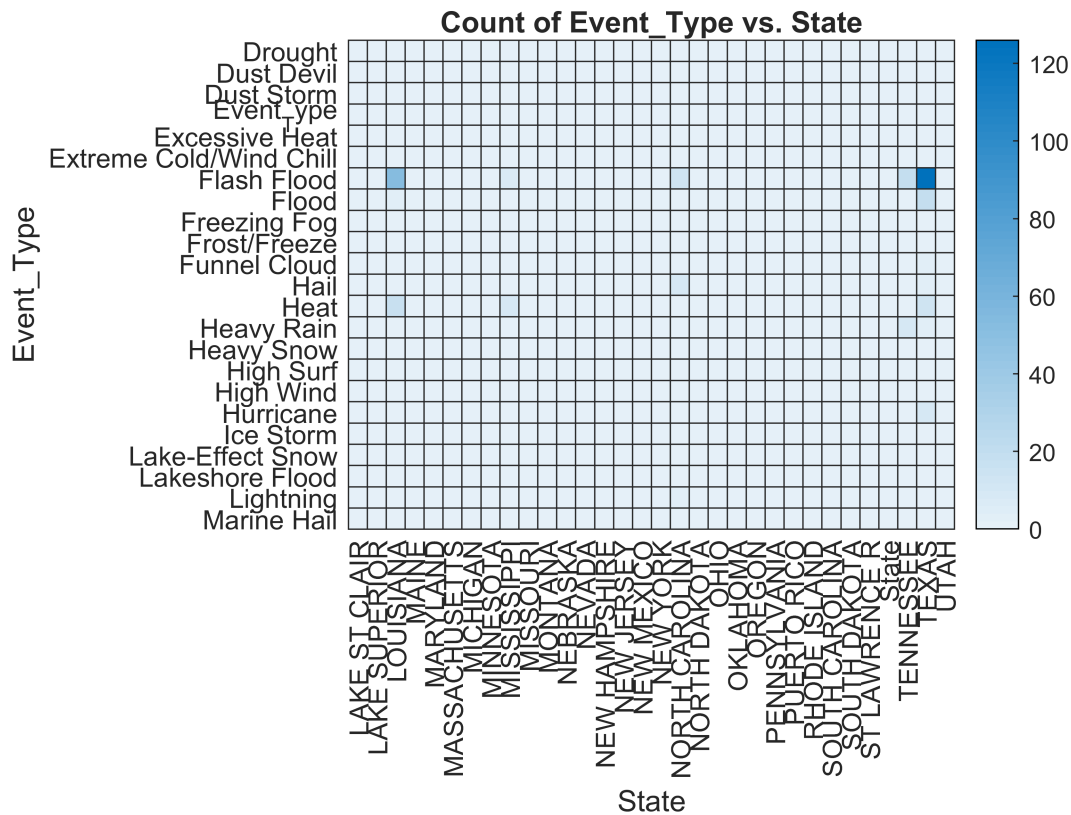


Figure of Event Locations

ImpactedState

ImpactedState = 361x14 table

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...
77	TEXAS	August	Tropical Storm	GRIMES	2017-08-25 12:00...	2017-08-29 12:...
78	TEXAS	August	Tropical Storm	WASHINGTON	2017-08-25 12:00...	2017-08-29 12:...
79	TEXAS	August	Tropical Storm	BRAZOS	2017-08-25 12:00...	2017-08-29 12:...
80	TEXAS	August	Tropical Storm	BURLESON	2017-08-25 12:00...	2017-08-29 12:...
81	TEXAS	August	Tropical Storm	MADISON	2017-08-25 12:00...	2017-08-29 12:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
82	TEXAS	August	Tropical Storm	LIBERTY	2017-08-25 12:00...	2017-08-30 00:...
83	TEXAS	August	Tropical Storm	MATAGORDA	2017-08-25 12:00...	2017-08-29 12:...
84	TEXAS	August	Tropical Storm	JACKSON	2017-08-25 12:00...	2017-08-29 12:...
85	TEXAS	August	Tornado	GALVESTON	2017-08-25 13:18...	2017-08-25 13:...
86	TEXAS	August	Tornado	BRAZORIA	2017-08-25 14:30...	2017-08-25 14:...
87	TEXAS	August	Storm Surge/Tide	NUECES	2017-08-25 15:00...	2017-08-26 18:...
88	TEXAS	August	Storm Surge/Tide	CALHOUN	2017-08-25 15:00...	2017-08-27 00:...
89	TEXAS	August	Storm Surge/Tide	ARANSAS	2017-08-25 15:00...	2017-08-26 21:...
90	TEXAS	August	Tornado	MATAGORDA	2017-08-25 15:08...	2017-08-25 15:...
91	TEXAS	August	Tornado	CALHOUN	2017-08-25 15:14...	2017-08-25 15:...
92	TEXAS	August	Hurricane	NUECES	2017-08-25 17:00...	2017-08-26 12:...
93	TEXAS	August	Hurricane	ARANSAS	2017-08-25 17:00...	2017-08-26 12:...
94	TEXAS	August	Tornado	BRAZORIA	2017-08-25 17:11...	2017-08-25 17:...
95	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
96	TEXAS	August	Tropical Storm	KLEBERG	2017-08-25 18:00...	2017-08-26 15:...
97	TEXAS	August	Tropical Storm	JIM WELLS	2017-08-25 18:00...	2017-08-26 12:...
98	TEXAS	August	Hurricane	SAN PATRI...	2017-08-25 18:00...	2017-08-26 12:...
99	TEXAS	August	Hurricane	CALHOUN	2017-08-25 18:00...	2017-08-26 12:...
100	TEXAS	August	Storm Surge/Tide	SAN PATRI...	2017-08-25 18:00...	2017-08-25 18:...

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```

ImpactedState = ImpactedState(~ismissing(ImpactedState.State),:);
ImpactedState = ImpactedState(~ismissing(ImpactedState.Month),:);
ImpactedState = ImpactedState(~ismissing(ImpactedState.Event_Type),:);
ImpactedState = ImpactedState(~ismissing(ImpactedState.CZ_Name),:)

```

ImpactedState = 361x14 table

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...

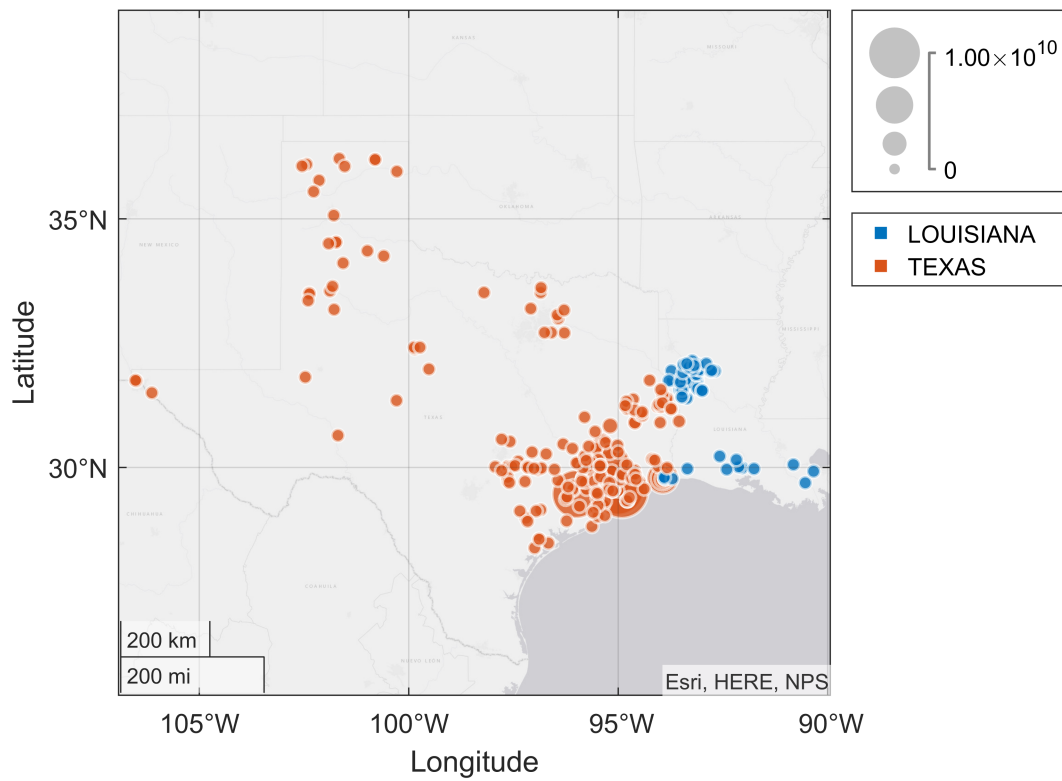
	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...
77	TEXAS	August	Tropical Storm	GRIMES	2017-08-25 12:00...	2017-08-29 12:...
78	TEXAS	August	Tropical Storm	WASHINGTON	2017-08-25 12:00...	2017-08-29 12:...
79	TEXAS	August	Tropical Storm	BRAZOS	2017-08-25 12:00...	2017-08-29 12:...
80	TEXAS	August	Tropical Storm	BURLESON	2017-08-25 12:00...	2017-08-29 12:...
81	TEXAS	August	Tropical Storm	MADISON	2017-08-25 12:00...	2017-08-29 12:...
82	TEXAS	August	Tropical Storm	LIBERTY	2017-08-25 12:00...	2017-08-30 00:...
83	TEXAS	August	Tropical Storm	MATAGORDA	2017-08-25 12:00...	2017-08-29 12:...
84	TEXAS	August	Tropical Storm	JACKSON	2017-08-25 12:00...	2017-08-29 12:...
85	TEXAS	August	Tornado	GALVESTON	2017-08-25 13:18...	2017-08-25 13:...
86	TEXAS	August	Tornado	BRAZORIA	2017-08-25 14:30...	2017-08-25 14:...
87	TEXAS	August	Storm Surge/Tide	NUECES	2017-08-25 15:00...	2017-08-26 18:...
88	TEXAS	August	Storm Surge/Tide	CALHOUN	2017-08-25 15:00...	2017-08-27 00:...
89	TEXAS	August	Storm Surge/Tide	ARANSAS	2017-08-25 15:00...	2017-08-26 21:...
90	TEXAS	August	Tornado	MATAGORDA	2017-08-25 15:08...	2017-08-25 15:...
91	TEXAS	August	Tornado	CALHOUN	2017-08-25 15:14...	2017-08-25 15:...
92	TEXAS	August	Hurricane	NUECES	2017-08-25 17:00...	2017-08-26 12:...
93	TEXAS	August	Hurricane	ARANSAS	2017-08-25 17:00...	2017-08-26 12:...
94	TEXAS	August	Tornado	BRAZORIA	2017-08-25 17:11...	2017-08-25 17:...
95	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
96	TEXAS	August	Tropical Storm	KLEBERG	2017-08-25 18:00...	2017-08-26 15:...
97	TEXAS	August	Tropical Storm	JIM WELLS	2017-08-25 18:00...	2017-08-26 12:...
98	TEXAS	August	Hurricane	SAN PATRI...	2017-08-25 18:00...	2017-08-26 12:...
99	TEXAS	August	Hurricane	CALHOUN	2017-08-25 18:00...	2017-08-26 12:...
100	TEXAS	August	Storm Surge/Tide	SAN PATRI...	2017-08-25 18:00...	2017-08-25 18:...

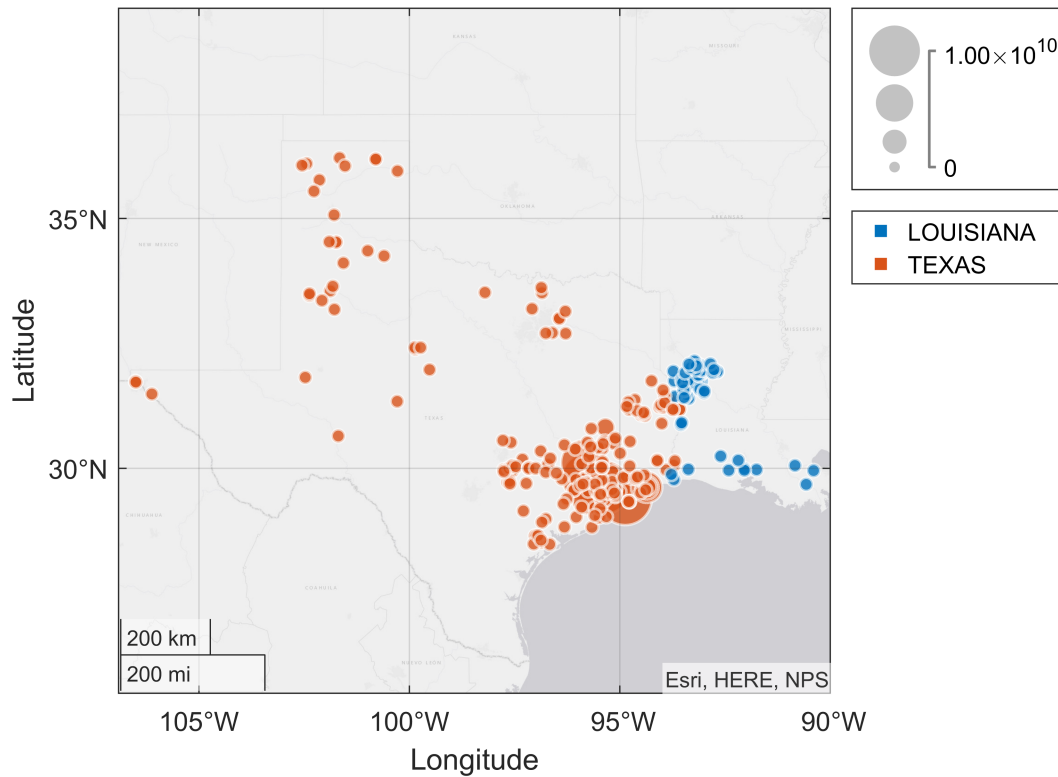
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```
geobubble(ImpactedState.Begin_Lat,ImpactedState.Begin_Lon,ImpactedState.Property_Cost,ImpactedS
```



Geoplot for Begining Lattitudes and Longitudes

```
geobubble(ImpactedState.End_Lat,ImpactedState.End_Lon,ImpactedState.Property_Cost,ImpactedState
```



Geoplot for End Latitudes and Longitudes

Analysis

Three Counties with Most Events in State 1 (Texas)

```
Impacted1 = ImpactedState
```

Impacted1 = 361x14 table

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
77	TEXAS	August	Tropical Storm	GRIMES	2017-08-25 12:00...	2017-08-29 12:...
78	TEXAS	August	Tropical Storm	WASHINGTON	2017-08-25 12:00...	2017-08-29 12:...
79	TEXAS	August	Tropical Storm	BRAZOS	2017-08-25 12:00...	2017-08-29 12:...
80	TEXAS	August	Tropical Storm	BURLESON	2017-08-25 12:00...	2017-08-29 12:...
81	TEXAS	August	Tropical Storm	MADISON	2017-08-25 12:00...	2017-08-29 12:...
82	TEXAS	August	Tropical Storm	LIBERTY	2017-08-25 12:00...	2017-08-30 00:...
83	TEXAS	August	Tropical Storm	MATAGORDA	2017-08-25 12:00...	2017-08-29 12:...
84	TEXAS	August	Tropical Storm	JACKSON	2017-08-25 12:00...	2017-08-29 12:...
85	TEXAS	August	Tornado	GALVESTON	2017-08-25 13:18...	2017-08-25 13:...
86	TEXAS	August	Tornado	BRAZORIA	2017-08-25 14:30...	2017-08-25 14:...
87	TEXAS	August	Storm Surge/Tide	NUECES	2017-08-25 15:00...	2017-08-26 18:...
88	TEXAS	August	Storm Surge/Tide	CALHOUN	2017-08-25 15:00...	2017-08-27 00:...
89	TEXAS	August	Storm Surge/Tide	ARANSAS	2017-08-25 15:00...	2017-08-26 21:...
90	TEXAS	August	Tornado	MATAGORDA	2017-08-25 15:08...	2017-08-25 15:...
91	TEXAS	August	Tornado	CALHOUN	2017-08-25 15:14...	2017-08-25 15:...
92	TEXAS	August	Hurricane	NUECES	2017-08-25 17:00...	2017-08-26 12:...
93	TEXAS	August	Hurricane	ARANSAS	2017-08-25 17:00...	2017-08-26 12:...
94	TEXAS	August	Tornado	BRAZORIA	2017-08-25 17:11...	2017-08-25 17:...
95	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
96	TEXAS	August	Tropical Storm	KLEBERG	2017-08-25 18:00...	2017-08-26 15:...
97	TEXAS	August	Tropical Storm	JIM WELLS	2017-08-25 18:00...	2017-08-26 12:...
98	TEXAS	August	Hurricane	SAN PATRI...	2017-08-25 18:00...	2017-08-26 12:...
99	TEXAS	August	Hurricane	CALHOUN	2017-08-25 18:00...	2017-08-26 12:...
100	TEXAS	August	Storm Surge/Tide	SAN PATRI...	2017-08-25 18:00...	2017-08-25 18:...

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```
Impacted1.CZ_Name = removecats(Impacted1.CZ_Name,{ '5NM E OF FAIRPORT MI TO ROCK ISLAND PASSAGE' })
```

```
Impacted1 = 361x14 table
```

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...

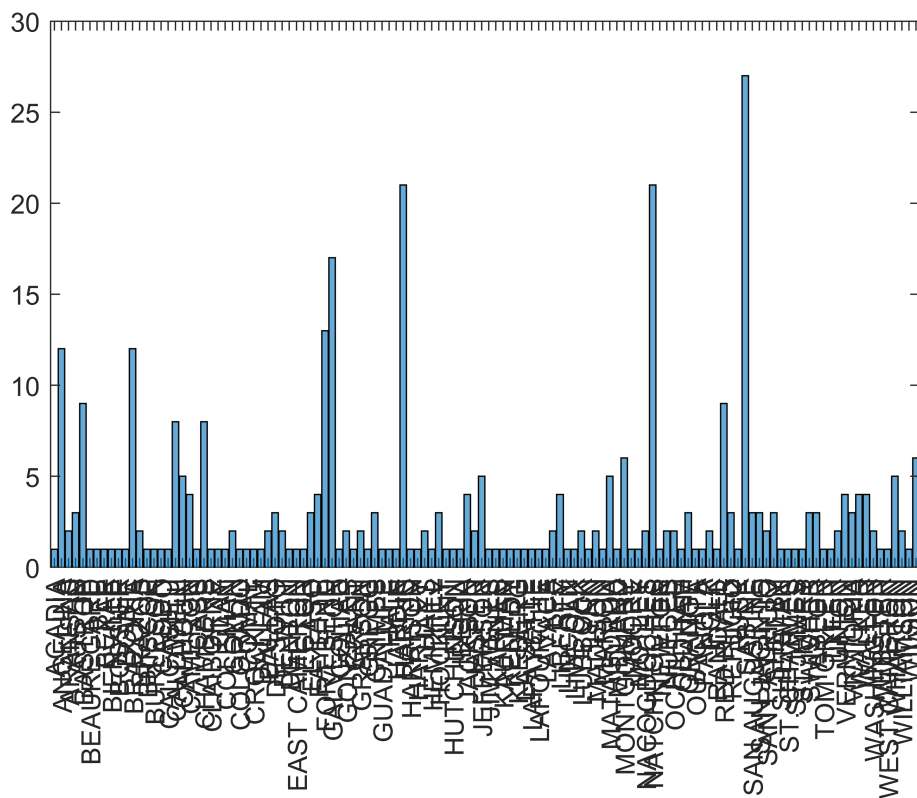
	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...
77	TEXAS	August	Tropical Storm	GRIMES	2017-08-25 12:00...	2017-08-29 12:...
78	TEXAS	August	Tropical Storm	WASHINGTON	2017-08-25 12:00...	2017-08-29 12:...
79	TEXAS	August	Tropical Storm	BRAZOS	2017-08-25 12:00...	2017-08-29 12:...
80	TEXAS	August	Tropical Storm	BURLESON	2017-08-25 12:00...	2017-08-29 12:...
81	TEXAS	August	Tropical Storm	MADISON	2017-08-25 12:00...	2017-08-29 12:...
82	TEXAS	August	Tropical Storm	LIBERTY	2017-08-25 12:00...	2017-08-30 00:...
83	TEXAS	August	Tropical Storm	MATAGORDA	2017-08-25 12:00...	2017-08-29 12:...
84	TEXAS	August	Tropical Storm	JACKSON	2017-08-25 12:00...	2017-08-29 12:...
85	TEXAS	August	Tornado	GALVESTON	2017-08-25 13:18...	2017-08-25 13:...
86	TEXAS	August	Tornado	BRAZORIA	2017-08-25 14:30...	2017-08-25 14:...
87	TEXAS	August	Storm Surge/Tide	NUECES	2017-08-25 15:00...	2017-08-26 18:...
88	TEXAS	August	Storm Surge/Tide	CALHOUN	2017-08-25 15:00...	2017-08-27 00:...
89	TEXAS	August	Storm Surge/Tide	ARANSAS	2017-08-25 15:00...	2017-08-26 21:...
90	TEXAS	August	Tornado	MATAGORDA	2017-08-25 15:08...	2017-08-25 15:...
91	TEXAS	August	Tornado	CALHOUN	2017-08-25 15:14...	2017-08-25 15:...
92	TEXAS	August	Hurricane	NUECES	2017-08-25 17:00...	2017-08-26 12:...
93	TEXAS	August	Hurricane	ARANSAS	2017-08-25 17:00...	2017-08-26 12:...
94	TEXAS	August	Tornado	BRAZORIA	2017-08-25 17:11...	2017-08-25 17:...
95	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
96	TEXAS	August	Tropical Storm	KLEBERG	2017-08-25 18:00...	2017-08-26 15:...
97	TEXAS	August	Tropical Storm	JIM WELLS	2017-08-25 18:00...	2017-08-26 12:...
98	TEXAS	August	Hurricane	SAN PATRI...	2017-08-25 18:00...	2017-08-26 12:...
99	TEXAS	August	Hurricane	CALHOUN	2017-08-25 18:00...	2017-08-26 12:...
100	TEXAS	August	Storm Surge/Tide	SAN PATRI...	2017-08-25 18:00...	2017-08-25 18:...

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```
histogram(Impacted1.CZ_Name)
```



% From Histogram of CZ_States We can see in State 1 which is Texas the 3 countries which have
 % If Data from Histogram is not Visible Kindly Refer the table
 countrteffect = groupsummary(Impacted1 , "CZ_Name")

countrteffect = 122x2 table

	CZ_Name	GroupCount
1	ACADIA	1
2	ANGELINA	12
3	ARANSAS	2
4	AUSTIN	3
5	BASTROP	9
6	BEAUREGARD	1
7	BEE	1
8	BEXAR	1
9	BIENVILLE	1
10	BOSSIER	1
11	BOWIE	1
12	BRAZORIA	12
13	BRAZOS	2
14	BRISCOE	1

	CZ_Name	GroupCount
15	BURLESON	1
16	CADDO	1
17	CALCASIEU	1
18	CALDWELL	8
19	CALHOUN	5
20	CAMERON	4
21	CASS	1
22	CHAMBERS	8
23	CLAIBORNE	1
24	CLAY	1
25	COLEMAN	1
26	COLLIN	2
27	COLORADO	1
28	COMAL	1
29	CROCKETT	1
30	DALLAM	1
31	DALLAS	2
32	DE SOTO	3
33	DE WITT	2
34	DENTON	1
35	EAST CAME...	1
36	ECTOR	1
37	EL PASO	3
38	FAYETTE	4
39	FORT BEND	13
40	GALVESTON	17
41	GOLIAD	1
42	GONZALES	2
43	GRANT	1
44	GRAYSON	2
45	GREGG	1
46	GRIMES	3
47	GUADALUPE	1
48	HALE	1

	CZ_Name	GroupCount
49	HARDIN	1
50	HARRIS	21
51	HARRISON	1
52	HARTLEY	1
53	HAYS	2
54	HEMPHILL	1
55	HOCKLEY	3
56	HUNT	1
57	HUTCHINSON	1
58	IBERIA	1
59	JACKSON	4
60	JASPER	2
61	JEFFERSON	5
62	JIM WELLS	1
63	KARNES	1
64	KAUFMAN	1
65	KENEDY	1
66	KLEBERG	1
67	LA SALLE	1
68	LAFAYETTE	1
69	LAFOURCHE	1
70	LAVACA	1
71	LEE	2
72	LIBERTY	4
73	LINCOLN	1
74	LIVE OAK	1
75	LUBBOCK	2
76	LYNN	1
77	MADISON	2
78	MARION	1
79	MATAGORDA	5
80	MIDLAND	1
81	MONTGOMERY	6
82	MOORE	1

	CZ_Name	GroupCount
83	MOTLEY	1
84	NACOGDOCHES	2
85	NATCHITOC...	21
86	NEWTON	1
87	NUECES	2
88	OCHILTREE	2
89	OLDHAM	1
90	ORANGE	3
91	OUACHITA	1
92	PANOLA	1
93	POLK	2
94	RANDALL	1
95	RED RIVER	9
96	REFUGIO	3
97	RUSK	1
98	SABINE	27
99	SAN AUGUS...	3
100	SAN JACINTO	3

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```
countreffect = sortrows(countreffect, 'GroupCount', 'descend')
```

```
countreffect = 122x2 table
```

	CZ_Name	GroupCount
1	SABINE	27
2	HARRIS	21
3	NATCHITOC...	21
4	GALVESTON	17
5	FORT BEND	13
6	ANGELINA	12
7	BRAZORIA	12
8	BASTROP	9
9	RED RIVER	9
10	CALDWELL	8
11	CHAMBERS	8

	CZ_Name	GroupCount
12	MONTGOMERY	6
13	WINN	6
14	CALHOUN	5
15	JEFFERSON	5
16	MATAGORDA	5
17	WHARTON	5
18	CAMERON	4
19	FAYETTE	4
20	JACKSON	4
21	LIBERTY	4
22	VERMILION	4
23	WALKER	4
24	WALLER	4
25	AUSTIN	3
26	DE SOTO	3
27	EL PASO	3
28	GRIMES	3
29	HOCKLEY	3
30	ORANGE	3
31	REFUGIO	3
32	SAN AUGUS...	3
33	SAN JACINTO	3
34	SHELBY	3
35	SWISHER	3
36	TAYLOR	3
37	VICTORIA	3
38	ARANSAS	2
39	BRAZOS	2
40	COLLIN	2
41	DALLAS	2
42	DE WITT	2
43	GONZALES	2
44	GRAYSON	2
45	HAYS	2

	CZ_Name	GroupCount
46	JASPER	2
47	LEE	2
48	LUBBOCK	2
49	MADISON	2
50	NACOGDOCHES	2
51	NUECES	2
52	OCHILTREE	2
53	POLK	2
54	SAN PATRI...	2
55	UNION	2
56	WASHINGTON	2
57	WILLIAMSON	2
58	ACADIA	1
59	BEAUREGARD	1
60	BEE	1
61	BEXAR	1
62	BIENVILLE	1
63	BOSSIER	1
64	BOWIE	1
65	BRISCOE	1
66	BURLESON	1
67	CADDO	1
68	CALCASIEU	1
69	CASS	1
70	CLAIBORNE	1
71	CLAY	1
72	COLEMAN	1
73	COLORADO	1
74	COMAL	1
75	CROCKETT	1
76	DALLAM	1
77	DENTON	1
78	EAST CAME...	1
79	ECTOR	1

	CZ_Name	GroupCount
80	GOLIAD	1
81	GRANT	1
82	GREGG	1
83	GUADALUPE	1
84	HALE	1
85	HARDIN	1
86	HARRISON	1
87	HARTLEY	1
88	HEMPHILL	1
89	HUNT	1
90	HUTCHINSON	1
91	IBERIA	1
92	JIM WELLS	1
93	KARNES	1
94	KAUFMAN	1
95	KENEDY	1
96	KLEBERG	1
97	LA SALLE	1
98	LAFAYETTE	1
99	LAFOURCHE	1
100	LAVACA	1

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From Group Summary Table it is clearly visible that the countries affected in State 1 are:

SABINE (27 Events)

NATCHITOCHEs & HARRIS (21 Events)

GALVESTON (17 Events)

Three Counties with Most Events in State 2

Impacted2 = ImpactedState

Impacted2 = 361×14 table

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...
77	TEXAS	August	Tropical Storm	GRIMES	2017-08-25 12:00...	2017-08-29 12:...
78	TEXAS	August	Tropical Storm	WASHINGTON	2017-08-25 12:00...	2017-08-29 12:...
79	TEXAS	August	Tropical Storm	BRAZOS	2017-08-25 12:00...	2017-08-29 12:...
80	TEXAS	August	Tropical Storm	BURLESON	2017-08-25 12:00...	2017-08-29 12:...
81	TEXAS	August	Tropical Storm	MADISON	2017-08-25 12:00...	2017-08-29 12:...
82	TEXAS	August	Tropical Storm	LIBERTY	2017-08-25 12:00...	2017-08-30 00:...
83	TEXAS	August	Tropical Storm	MATAGORDA	2017-08-25 12:00...	2017-08-29 12:...
84	TEXAS	August	Tropical Storm	JACKSON	2017-08-25 12:00...	2017-08-29 12:...
85	TEXAS	August	Tornado	GALVESTON	2017-08-25 13:18...	2017-08-25 13:...
86	TEXAS	August	Tornado	BRAZORIA	2017-08-25 14:30...	2017-08-25 14:...
87	TEXAS	August	Storm Surge/Tide	NUECES	2017-08-25 15:00...	2017-08-26 18:...
88	TEXAS	August	Storm Surge/Tide	CALHOUN	2017-08-25 15:00...	2017-08-27 00:...
89	TEXAS	August	Storm Surge/Tide	ARANSAS	2017-08-25 15:00...	2017-08-26 21:...
90	TEXAS	August	Tornado	MATAGORDA	2017-08-25 15:08...	2017-08-25 15:...
91	TEXAS	August	Tornado	CALHOUN	2017-08-25 15:14...	2017-08-25 15:...
92	TEXAS	August	Hurricane	NUECES	2017-08-25 17:00...	2017-08-26 12:...
93	TEXAS	August	Hurricane	ARANSAS	2017-08-25 17:00...	2017-08-26 12:...
94	TEXAS	August	Tornado	BRAZORIA	2017-08-25 17:11...	2017-08-25 17:...
95	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
96	TEXAS	August	Tropical Storm	KLEBERG	2017-08-25 18:00...	2017-08-26 15:...
97	TEXAS	August	Tropical Storm	JIM WELLS	2017-08-25 18:00...	2017-08-26 12:...
98	TEXAS	August	Hurricane	SAN PATRI...	2017-08-25 18:00...	2017-08-26 12:...
99	TEXAS	August	Hurricane	CALHOUN	2017-08-25 18:00...	2017-08-26 12:...
100	TEXAS	August	Storm Surge/Tide	SAN PATRI...	2017-08-25 18:00...	2017-08-25 18:...

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Impacted2 = Impacted2(Impacted2.State == 'LOUISIANA',:)
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Impacted2 = 86×14 table

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
2	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
3	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
4	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
5	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
6	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
7	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
8	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
9	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
10	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
11	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
12	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
13	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
14	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
15	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
16	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
17	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
18	LOUISIANA	August	Tornado	CAMERON	2017-08-26 11:22...	2017-08-26 11:...
19	LOUISIANA	August	Storm Surge/Tide	VERMILION	2017-08-27 08:30...	2017-08-30 14:...
20	LOUISIANA	August	Storm Surge/Tide	ST. MARY	2017-08-27 08:30...	2017-08-30 15:...
21	LOUISIANA	August	Storm Surge/Tide	EAST CAME...	2017-08-27 08:30...	2017-08-30 07:...
22	LOUISIANA	August	Storm Surge/Tide	WEST CAME...	2017-08-27 08:30...	2017-08-30 07:...
23	LOUISIANA	August	Flash Flood	CALCASIEU	2017-08-27 11:17...	2017-08-30 16:...
24	LOUISIANA	August	Tornado	VERMILION	2017-08-27 13:15...	2017-08-27 13:...
25	LOUISIANA	August	Tornado	IBERIA	2017-08-27 13:35...	2017-08-27 13:...
26	LOUISIANA	August	Tornado	CAMERON	2017-08-28 03:39...	2017-08-28 03:...
27	LOUISIANA	August	Flash Flood	BEAUREGARD	2017-08-28 12:00...	2017-08-30 16:...
28	LOUISIANA	August	Flash Flood	VERMILION	2017-08-28 13:00...	2017-08-28 14:...
29	LOUISIANA	August	Flash Flood	LAFOURCHE	2017-08-29 07:00...	2017-08-29 09:...
30	LOUISIANA	August	Flash Flood	ST. CHARLES	2017-08-29 08:00...	2017-08-29 10:...
31	LOUISIANA	August	Flash Flood	ST. JAMES	2017-08-29 09:00...	2017-08-29 10:...
32	LOUISIANA	August	Tornado	VERMILION	2017-08-29 16:00...	2017-08-29 16:...
33	LOUISIANA	August	Tornado	ACADIA	2017-08-29 16:09...	2017-08-29 16:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
34	LOUISIANA	August	Tornado	LAFAYETTE	2017-08-29 16:34...	2017-08-29 16:...
35	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 11:56...	2017-08-31 07:...
36	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:00...	2017-08-31 07:...
37	LOUISIANA	August	Flood	CAMERON	2017-08-30 12:00...	2017-08-31 23:...
38	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:59...	2017-08-31 07:...
39	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 12:59...	2017-08-31 07:...
40	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:59...	2017-08-31 07:...
41	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 13:00...	2017-08-31 07:...
42	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 13:17...	2017-08-31 07:...
43	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 13:20...	2017-08-31 07:...
44	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 13:23...	2017-08-31 07:...
45	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 14:00...	2017-08-31 07:...
46	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 14:20...	2017-08-31 07:...
47	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 14:28...	2017-08-31 07:...
48	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:00...	2017-08-31 07:...
49	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:00...	2017-08-31 07:...
50	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 15:01...	2017-08-31 07:...
51	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:30...	2017-08-31 07:...
52	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:30...	2017-08-31 07:...
53	LOUISIANA	August	Flash Flood	DE SOTO	2017-08-30 15:39...	2017-08-31 07:...
54	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 16:15...	2017-08-31 07:...
55	LOUISIANA	August	Tropical Storm	SABINE	2017-08-30 16:45...	2017-08-30 22:...
56	LOUISIANA	August	Tropical Storm	NATCHITOC...	2017-08-30 16:45...	2017-08-30 22:...
57	LOUISIANA	August	Tropical Storm	UNION	2017-08-30 16:45...	2017-08-30 22:...
58	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
59	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
60	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
61	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
62	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
63	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
64	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
65	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
66	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:21...	2017-08-31 07:...
67	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:30...	2017-08-31 07:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
68	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:30...	2017-08-31 07:...
69	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:42...	2017-08-31 07:...
70	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:00...	2017-08-31 07:...
71	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:09...	2017-08-31 07:...
72	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:10...	2017-08-31 07:...
73	LOUISIANA	August	Flash Flood	WINN	2017-08-30 18:30...	2017-08-31 07:...
74	LOUISIANA	August	Flash Flood	DE SOTO	2017-08-30 19:00...	2017-08-31 07:...
75	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 19:00...	2017-08-31 07:...
76	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
77	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
78	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
79	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
80	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
81	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
82	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
83	LOUISIANA	August	Flash Flood	WINN	2017-08-31 03:05...	2017-08-31 07:...
84	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-31 03:30...	2017-08-31 07:...
85	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-31 06:00...	2017-08-31 07:...
86	LOUISIANA	September	Flood	CAMERON	2017-09-01 00:00...	2017-09-07 23:...

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Impacted2 = 86x14 table

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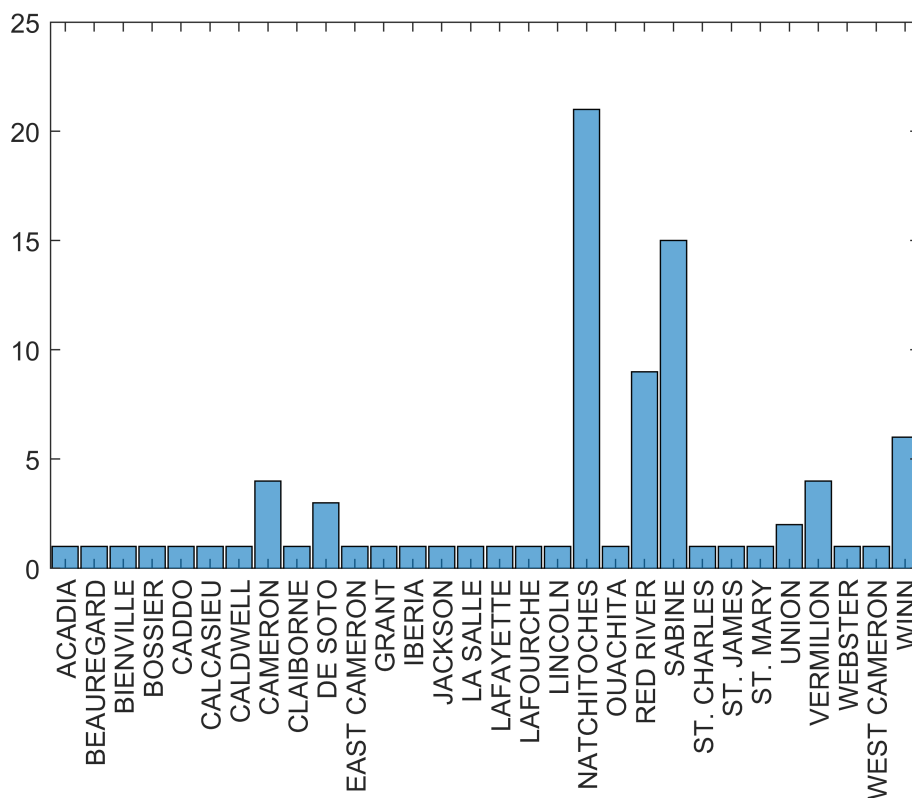
	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
2	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
3	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
4	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
5	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
6	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
7	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
8	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
9	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
10	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
11	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
12	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
13	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
14	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
15	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
16	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
17	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
18	LOUISIANA	August	Tornado	CAMERON	2017-08-26 11:22...	2017-08-26 11:...
19	LOUISIANA	August	Storm Surge/Tide	VERMILION	2017-08-27 08:30...	2017-08-30 14:...
20	LOUISIANA	August	Storm Surge/Tide	ST. MARY	2017-08-27 08:30...	2017-08-30 15:...
21	LOUISIANA	August	Storm Surge/Tide	EAST CAME...	2017-08-27 08:30...	2017-08-30 07:...
22	LOUISIANA	August	Storm Surge/Tide	WEST CAME...	2017-08-27 08:30...	2017-08-30 07:...
23	LOUISIANA	August	Flash Flood	CALCASIEU	2017-08-27 11:17...	2017-08-30 16:...
24	LOUISIANA	August	Tornado	VERMILION	2017-08-27 13:15...	2017-08-27 13:...
25	LOUISIANA	August	Tornado	IBERIA	2017-08-27 13:35...	2017-08-27 13:...
26	LOUISIANA	August	Tornado	CAMERON	2017-08-28 03:39...	2017-08-28 03:...
27	LOUISIANA	August	Flash Flood	BEAUREGARD	2017-08-28 12:00...	2017-08-30 16:...
28	LOUISIANA	August	Flash Flood	VERMILION	2017-08-28 13:00...	2017-08-28 14:...
29	LOUISIANA	August	Flash Flood	LAFOURCHE	2017-08-29 07:00...	2017-08-29 09:...
30	LOUISIANA	August	Flash Flood	ST. CHARLES	2017-08-29 08:00...	2017-08-29 10:...
31	LOUISIANA	August	Flash Flood	ST. JAMES	2017-08-29 09:00...	2017-08-29 10:...
32	LOUISIANA	August	Tornado	VERMILION	2017-08-29 16:00...	2017-08-29 16:...
33	LOUISIANA	August	Tornado	ACADIA	2017-08-29 16:09...	2017-08-29 16:...
34	LOUISIANA	August	Tornado	LAFAYETTE	2017-08-29 16:34...	2017-08-29 16:...
35	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 11:56...	2017-08-31 07:...
36	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:00...	2017-08-31 07:...
37	LOUISIANA	August	Flood	CAMERON	2017-08-30 12:00...	2017-08-31 23:...
38	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:59...	2017-08-31 07:...
39	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 12:59...	2017-08-31 07:...
40	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:59...	2017-08-31 07:...
41	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 13:00...	2017-08-31 07:...
42	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 13:17...	2017-08-31 07:...
43	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 13:20...	2017-08-31 07:...
44	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 13:23...	2017-08-31 07:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
45	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 14:00...	2017-08-31 07:...
46	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 14:20...	2017-08-31 07:...
47	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 14:28...	2017-08-31 07:...
48	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:00...	2017-08-31 07:...
49	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:00...	2017-08-31 07:...
50	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 15:01...	2017-08-31 07:...
51	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:30...	2017-08-31 07:...
52	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:30...	2017-08-31 07:...
53	LOUISIANA	August	Flash Flood	DE SOTO	2017-08-30 15:39...	2017-08-31 07:...
54	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 16:15...	2017-08-31 07:...
55	LOUISIANA	August	Tropical Storm	SABINE	2017-08-30 16:45...	2017-08-30 22:...
56	LOUISIANA	August	Tropical Storm	NATCHITOC...	2017-08-30 16:45...	2017-08-30 22:...
57	LOUISIANA	August	Tropical Storm	UNION	2017-08-30 16:45...	2017-08-30 22:...
58	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
59	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
60	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
61	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
62	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
63	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
64	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
65	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
66	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:21...	2017-08-31 07:...
67	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:30...	2017-08-31 07:...
68	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:30...	2017-08-31 07:...
69	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:42...	2017-08-31 07:...
70	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:00...	2017-08-31 07:...
71	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:09...	2017-08-31 07:...
72	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:10...	2017-08-31 07:...
73	LOUISIANA	August	Flash Flood	WINN	2017-08-30 18:30...	2017-08-31 07:...
74	LOUISIANA	August	Flash Flood	DE SOTO	2017-08-30 19:00...	2017-08-31 07:...
75	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 19:00...	2017-08-31 07:...
76	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
77	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
78	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
79	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
80	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
81	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
82	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
83	LOUISIANA	August	Flash Flood	WINN	2017-08-31 03:05...	2017-08-31 07:...
84	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-31 03:30...	2017-08-31 07:...
85	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-31 06:00...	2017-08-31 07:...
86	LOUISIANA	September	Flood	CAMERON	2017-09-01 00:00...	2017-09-07 23:...

```
histogram(Impacted2.CZ_Name)
```



From Above Histogram it is visible that the Countries with most events in State 2 which is LOUISIANA are:

1. NATCHITOCHES
2. SABINE
3. RED RIVER

Three Counties with Highest Property Cost in State 1

```
Impacted1
```

```
Impacted1 = 361x14 table
```

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
2	TEXAS	August	Flash Flood	GRAYSON	2017-08-17 04:30...	2017-08-17 07:...
3	TEXAS	August	Flood	COLLIN	2017-08-17 05:30...	2017-08-17 07:...
4	TEXAS	August	Flash Flood	DENTON	2017-08-17 06:00...	2017-08-17 07:...
5	TEXAS	August	Flood	KAUFMAN	2017-08-17 06:10...	2017-08-17 09:...
6	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
7	TEXAS	August	Flash Flood	DALLAS	2017-08-17 06:50...	2017-08-17 09:...
8	TEXAS	August	Flood	COLLIN	2017-08-17 07:27...	2017-08-17 09:...
9	TEXAS	August	Flood	HUNT	2017-08-17 08:35...	2017-08-17 11:...
10	TEXAS	August	Thunderstorm Wind	COLEMAN	2017-08-17 13:05...	2017-08-17 13:...
11	TEXAS	August	Thunderstorm Wind	TOM GREEN	2017-08-17 15:40...	2017-08-17 15:...
12	TEXAS	August	Hail	SHERMAN	2017-08-17 17:27...	2017-08-17 17:...
13	TEXAS	August	Thunderstorm Wind	CROCKETT	2017-08-17 17:46...	2017-08-17 17:...
14	TEXAS	August	Hail	HUTCHINSON	2017-08-17 18:35...	2017-08-17 18:...
15	TEXAS	August	Thunderstorm Wind	RANDALL	2017-08-17 18:59...	2017-08-17 18:...
16	TEXAS	August	Hail	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
17	TEXAS	August	Thunderstorm Wind	OCHILTREE	2017-08-17 22:25...	2017-08-17 22:...
18	TEXAS	August	Thunderstorm Wind	HEMPHILL	2017-08-17 23:18...	2017-08-17 23:...
19	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:35...	2017-08-18 07:...
20	TEXAS	August	Funnel Cloud	GALVESTON	2017-08-18 07:39...	2017-08-18 07:...
21	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
22	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
23	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
24	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
25	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
26	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
27	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
28	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
29	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
30	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
31	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
32	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
33	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
34	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
35	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
36	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
37	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
38	TEXAS	August	Heat	BOWIE	2017-08-19 09:00...	2017-08-20 18:...
39	TEXAS	August	Heat	PANOLA	2017-08-19 09:00...	2017-08-20 18:...
40	TEXAS	August	Heat	SHELBY	2017-08-19 09:00...	2017-08-20 18:...
41	TEXAS	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
42	TEXAS	August	Heat	SAN AUGUS...	2017-08-19 09:00...	2017-08-20 18:...
43	TEXAS	August	Heat	NACOGDOCHES	2017-08-19 09:00...	2017-08-20 18:...
44	TEXAS	August	Heat	ANGELINA	2017-08-19 09:00...	2017-08-20 18:...
45	TEXAS	August	Thunderstorm Wind	CLAY	2017-08-19 15:15...	2017-08-19 15:...
46	TEXAS	August	Heat	CASS	2017-08-19 20:32...	2017-08-20 18:...
47	TEXAS	August	Heat	MARION	2017-08-19 20:32...	2017-08-20 18:...
48	TEXAS	August	Heat	HARRISON	2017-08-19 20:32...	2017-08-20 18:...
49	TEXAS	August	Heat	GREGG	2017-08-19 20:32...	2017-08-20 18:...
50	TEXAS	August	Heat	RUSK	2017-08-19 20:32...	2017-08-20 18:...
51	TEXAS	August	Thunderstorm Wind	BRISCOE	2017-08-20 17:45...	2017-08-20 17:...
52	TEXAS	August	Heat	HARRIS	2017-08-21 13:00...	2017-08-21 13:...
53	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-21 16:15...	2017-08-21 16:...
54	TEXAS	August	Thunderstorm Wind	HALE	2017-08-21 16:19...	2017-08-21 16:...
55	TEXAS	August	Thunderstorm Wind	MOTLEY	2017-08-21 18:30...	2017-08-21 18:...
56	TEXAS	August	Heavy Rain	SWISHER	2017-08-22 14:30...	2017-08-22 16:...
57	TEXAS	August	Thunderstorm Wind	SWISHER	2017-08-22 16:05...	2017-08-22 16:...
58	TEXAS	August	Flash Flood	SWISHER	2017-08-22 16:15...	2017-08-22 18:...
59	TEXAS	August	Heavy Rain	HOCKLEY	2017-08-22 17:30...	2017-08-22 17:...
60	TEXAS	August	Thunderstorm Wind	HOCKLEY	2017-08-22 17:45...	2017-08-22 17:...
61	TEXAS	August	Thunderstorm Wind	LUBBOCK	2017-08-22 18:00...	2017-08-22 18:...
62	TEXAS	August	Flash Flood	HOCKLEY	2017-08-22 18:14...	2017-08-22 18:...
63	TEXAS	August	Thunderstorm Wind	LYNN	2017-08-22 18:27...	2017-08-22 18:...
64	TEXAS	August	Thunderstorm Wind	MIDLAND	2017-08-22 20:59...	2017-08-22 20:...
65	TEXAS	August	Flash Flood	EL PASO	2017-08-23 16:15...	2017-08-23 17:...
66	TEXAS	August	Tropical Storm	MONTGOMERY	2017-08-25 12:00...	2017-08-30 00:...
67	TEXAS	August	Tropical Storm	GALVESTON	2017-08-25 12:00...	2017-08-30 00:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
68	TEXAS	August	Tropical Storm	SAN JACINTO	2017-08-25 12:00...	2017-08-30 00:...
69	TEXAS	August	Tropical Storm	WALKER	2017-08-25 12:00...	2017-08-30 00:...
70	TEXAS	August	Tropical Storm	POLK	2017-08-25 12:00...	2017-08-30 00:...
71	TEXAS	August	Tropical Storm	KENEDY	2017-08-25 12:00...	2017-08-25 20:...
72	TEXAS	August	Tropical Storm	AUSTIN	2017-08-25 12:00...	2017-08-29 12:...
73	TEXAS	August	Tropical Storm	BRAZORIA	2017-08-25 12:00...	2017-08-30 00:...
74	TEXAS	August	Tropical Storm	WHARTON	2017-08-25 12:00...	2017-08-30 00:...
75	TEXAS	August	Tropical Storm	WALLER	2017-08-25 12:00...	2017-08-29 12:...
76	TEXAS	August	Tropical Storm	CHAMBERS	2017-08-25 12:00...	2017-08-30 12:...
77	TEXAS	August	Tropical Storm	GRIMES	2017-08-25 12:00...	2017-08-29 12:...
78	TEXAS	August	Tropical Storm	WASHINGTON	2017-08-25 12:00...	2017-08-29 12:...
79	TEXAS	August	Tropical Storm	BRAZOS	2017-08-25 12:00...	2017-08-29 12:...
80	TEXAS	August	Tropical Storm	BURLESON	2017-08-25 12:00...	2017-08-29 12:...
81	TEXAS	August	Tropical Storm	MADISON	2017-08-25 12:00...	2017-08-29 12:...
82	TEXAS	August	Tropical Storm	LIBERTY	2017-08-25 12:00...	2017-08-30 00:...
83	TEXAS	August	Tropical Storm	MATAGORDA	2017-08-25 12:00...	2017-08-29 12:...
84	TEXAS	August	Tropical Storm	JACKSON	2017-08-25 12:00...	2017-08-29 12:...
85	TEXAS	August	Tornado	GALVESTON	2017-08-25 13:18...	2017-08-25 13:...
86	TEXAS	August	Tornado	BRAZORIA	2017-08-25 14:30...	2017-08-25 14:...
87	TEXAS	August	Storm Surge/Tide	NUECES	2017-08-25 15:00...	2017-08-26 18:...
88	TEXAS	August	Storm Surge/Tide	CALHOUN	2017-08-25 15:00...	2017-08-27 00:...
89	TEXAS	August	Storm Surge/Tide	ARANSAS	2017-08-25 15:00...	2017-08-26 21:...
90	TEXAS	August	Tornado	MATAGORDA	2017-08-25 15:08...	2017-08-25 15:...
91	TEXAS	August	Tornado	CALHOUN	2017-08-25 15:14...	2017-08-25 15:...
92	TEXAS	August	Hurricane	NUECES	2017-08-25 17:00...	2017-08-26 12:...
93	TEXAS	August	Hurricane	ARANSAS	2017-08-25 17:00...	2017-08-26 12:...
94	TEXAS	August	Tornado	BRAZORIA	2017-08-25 17:11...	2017-08-25 17:...
95	TEXAS	August	Thunderstorm Wind	ECTOR	2017-08-25 17:20...	2017-08-25 17:...
96	TEXAS	August	Tropical Storm	KLEBERG	2017-08-25 18:00...	2017-08-26 15:...
97	TEXAS	August	Tropical Storm	JIM WELLS	2017-08-25 18:00...	2017-08-26 12:...
98	TEXAS	August	Hurricane	SAN PATRI...	2017-08-25 18:00...	2017-08-26 12:...
99	TEXAS	August	Hurricane	CALHOUN	2017-08-25 18:00...	2017-08-26 12:...
100	TEXAS	August	Storm Surge/Tide	SAN PATRI...	2017-08-25 18:00...	2017-08-25 18:...

⋮

```
x1 = groupsummary(Impacted1 , "CZ_Name" , "sum", "Property_Cost")
```

```
x1 = 122x3 table
```

	CZ_Name	GroupCount	sum_Property_Cost
1	ACADIA	1	200000
2	ANGELINA	12	0
3	ARANSAS	2	1.9500000000000000e+09
4	AUSTIN	3	100000
5	BASTROP	9	1500000
6	BEAUREGARD	1	15000000
7	BEE	1	10000
8	BEXAR	1	100000
9	BIENVILLE	1	0
10	BOSSIER	1	0
11	BOWIE	1	0
12	BRAZORIA	12	2.0007800000000000e+09
13	BRAZOS	2	15000000
14	BRISCOE	1	10000
15	BURLESON	1	20000000
16	CADDO	1	0
17	CALCASIEU	1	60000000
18	CALDWELL	8	12850000
19	CALHOUN	5	281010000
20	CAMERON	4	72000
21	CASS	1	0
22	CHAMBERS	8	1000000
23	CLAIBORNE	1	0
24	CLAY	1	0
25	COLEMAN	1	0
26	COLLIN	2	0
27	COLORADO	1	0
28	COMAL	1	1000000
29	CROCKETT	1	0

	CZ_Name	GroupCount	sum_Property_Cost
30	DALLAM	1	0
31	DALLAS	2	0
32	DE SOTO	3	0
33	DE WITT	2	3100000
34	DENTON	1	0
35	EAST CAME...	1	0
36	ECTOR	1	8000
37	EL PASO	3	0
38	FAYETTE	4	50000000
39	FORT BEND	13	1.6004330000000000e+10
40	GALVESTON	17	2.0000201500000000e+10
41	GOLIAD	1	1000000
42	GONZALES	2	100000
43	GRANT	1	0
44	GRAYSON	2	0
45	GREGG	1	0
46	GRIMES	3	50000000
47	GUADALUPE	1	50000
48	HALE	1	0
49	HARDIN	1	600000000
50	HARRIS	21	1.0000730000000000e+10
51	HARRISON	1	0
52	HARTLEY	1	0
53	HAYS	2	100000
54	HEMPHILL	1	0
55	HOCKLEY	3	42000
56	HUNT	1	0
57	HUTCHINSON	1	0
58	IBERIA	1	0
59	JACKSON	4	500200000
60	JASPER	2	85005000
61	JEFFERSON	5	3.0000000000000000e+09
62	JIM WELLS	1	1000
63	KARNES	1	0

	CZ_Name	GroupCount	sum_Property_Cost
64	KAUFMAN	1	0
65	KENEDY	1	0
66	KLEBERG	1	10000
67	LA SALLE	1	0
68	LAFAYETTE	1	0
69	LAFOURCHE	1	0
70	LAVACA	1	100000
71	LEE	2	350000
72	LIBERTY	4	1.0000000000000000e+09
73	LINCOLN	1	0
74	LIVE OAK	1	10000
75	LUBBOCK	2	500
76	LYNN	1	0
77	MADISON	2	80000000
78	MARION	1	0
79	MATAGORDA	5	500500000
80	MIDLAND	1	0
81	MONTGOMERY	6	1.4000000000000000e+10
82	MOORE	1	0
83	MOTLEY	1	0
84	NACOGDOCHES	2	0
85	NATCHITOC...	21	0
86	NEWTON	1	45000000
87	NUECES	2	1.3000000000000000e+09
88	OCHILTREE	2	0
89	OLDHAM	1	0
90	ORANGE	3	1.5000000000000000e+09
91	OUACHITA	1	0
92	PANOLA	1	0
93	POLK	2	600000000
94	RANDALL	1	0
95	RED RIVER	9	0
96	REFUGIO	3	500020000
97	RUSK	1	0

	CZ_Name	GroupCount	sum_Property_Cost
98	SABINE	27	0
99	SAN AUGUS...	3	0
100	SAN JACINTO	3	700000000
	⋮		

```
x1 = sortrows(x1, 'sum_Property_Cost', 'descend')
```

```
x1 = 122x3 table
```

	CZ_Name	GroupCount	sum_Property_Cost
1	GALVESTON	17	2.000020150000000e+10
2	FORT BEND	13	1.600433000000000e+10
3	MONTGOMERY	6	1.400000000000000e+10
4	HARRIS	21	1.000073000000000e+10
5	JEFFERSON	5	3.000000000000000e+09
6	BRAZORIA	12	2.000780000000000e+09
7	ARANSAS	2	1.950000000000000e+09
8	ORANGE	3	1.500000000000000e+09
9	NUECES	2	1.300000000000000e+09
10	WALKER	4	1.200000000000000e+09
11	LIBERTY	4	1.000000000000000e+09
12	SAN JACINTO	3	700000000
13	HARDIN	1	600000000
14	POLK	2	600000000
15	SAN PATRI...	2	502000000
16	MATAGORDA	5	500500000
17	JACKSON	4	500200000
18	REFUGIO	3	500020000
19	WALLER	4	350700000
20	CALHOUN	5	281010000
21	WHARTON	5	200350000
22	VICTORIA	3	160000000
23	WASHINGTON	2	150000000
24	JASPER	2	85005000
25	MADISON	2	80000000
26	CALCASIEU	1	60000000

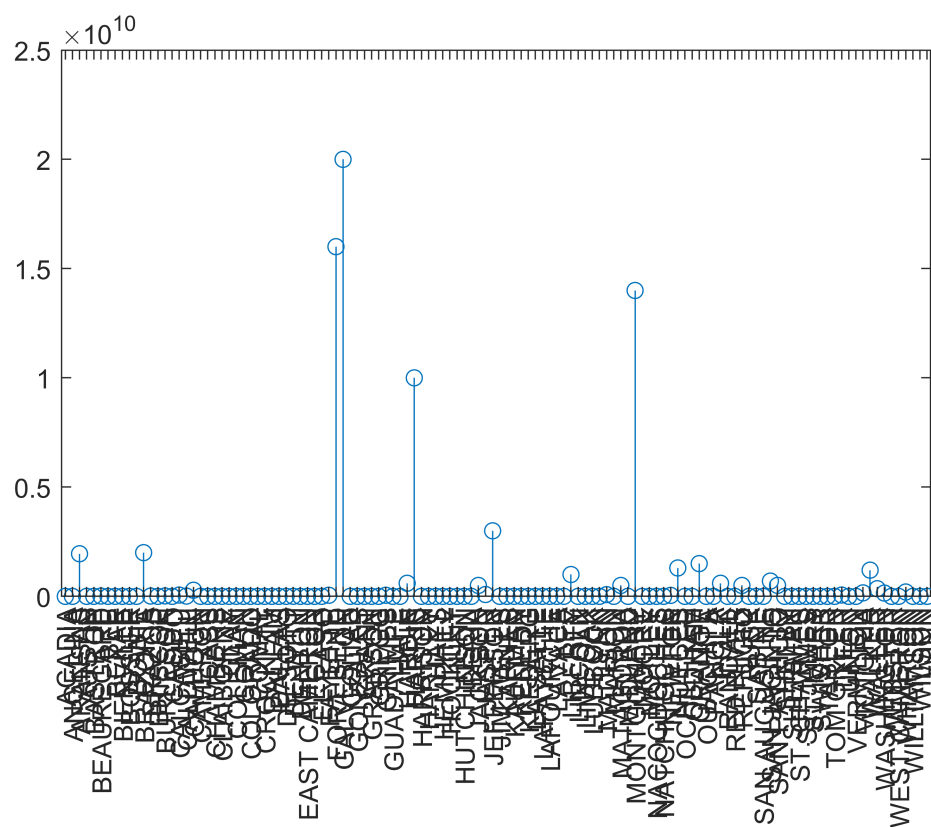
	CZ_Name	GroupCount	sum_Property_Cost
27	TYLER	1	60000000
28	FAYETTE	4	50000000
29	GRIMES	3	50000000
30	NEWTON	1	45000000
31	BURLESON	1	20000000
32	BEAUREGARD	1	15000000
33	BRAZOS	2	15000000
34	CALDWELL	8	12850000
35	DE WITT	2	3100000
36	BASTROP	9	1500000
37	CHAMBERS	8	1000000
38	COMAL	1	1000000
39	GOLIAD	1	1000000
40	LEE	2	350000
41	ACADIA	1	200000
42	AUSTIN	3	100000
43	BEXAR	1	100000
44	GONZALES	2	100000
45	HAYS	2	100000
46	LAVACA	1	100000
47	CAMERON	4	72000
48	GUADALUPE	1	50000
49	HOCKLEY	3	42000
50	BEE	1	10000
51	BRISCOE	1	10000
52	KLEBERG	1	10000
53	LIVE OAK	1	10000
54	ECTOR	1	8000
55	VERMILION	4	5000
56	JIM WELLS	1	1000
57	LUBBOCK	2	500
58	ANGELINA	12	0
59	BIENVILLE	1	0
60	BOSSIER	1	0

	CZ_Name	GroupCount	sum_Property_Cost
61	BOWIE	1	0
62	CADDO	1	0
63	CASS	1	0
64	CLAIBORNE	1	0
65	CLAY	1	0
66	COLEMAN	1	0
67	COLLIN	2	0
68	COLORADO	1	0
69	CROCKETT	1	0
70	DALLAM	1	0
71	DALLAS	2	0
72	DE SOTO	3	0
73	DENTON	1	0
74	EAST CAME...	1	0
75	EL PASO	3	0
76	GRANT	1	0
77	GRAYSON	2	0
78	GREGG	1	0
79	HALE	1	0
80	HARRISON	1	0
81	HARTLEY	1	0
82	HEMPHILL	1	0
83	HUNT	1	0
84	HUTCHINSON	1	0
85	IBERIA	1	0
86	KARNES	1	0
87	KAUFMAN	1	0
88	KENEDY	1	0
89	LA SALLE	1	0
90	LAFAYETTE	1	0
91	LAFOURCHE	1	0
92	LINCOLN	1	0
93	LYNN	1	0
94	MARION	1	0

	CZ_Name	GroupCount	sum_Property_Cost
95	MIDLAND	1	0
96	MOORE	1	0
97	MOTLEY	1	0
98	NACOGDOCHES	2	0
99	NATCHITOC...	21	0
100	OCHILTREE	2	0

⋮

```
stem(x1.CZ_Name,x1.sum_Property_Cost)
```



Three Most Impacted Counties in State 1 Texas with Highest Property Cost

1. GALVESTON
2. FORD BEND
3. MONTGOMERY

Three Counties with Highest Property Cost in State 2

Impacted2

Impacted2 = 86×14 table

...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
1	LOUISIANA	August	Heat	CADDO	2017-08-19 09:00...	2017-08-20 18:...
2	LOUISIANA	August	Heat	BOSSIER	2017-08-19 09:00...	2017-08-20 18:...
3	LOUISIANA	August	Heat	DE SOTO	2017-08-19 09:00...	2017-08-20 18:...
4	LOUISIANA	August	Heat	RED RIVER	2017-08-19 09:00...	2017-08-20 18:...
5	LOUISIANA	August	Heat	BIENVILLE	2017-08-19 09:00...	2017-08-20 18:...
6	LOUISIANA	August	Heat	WEBSTER	2017-08-19 09:00...	2017-08-20 18:...
7	LOUISIANA	August	Heat	CLAIBORNE	2017-08-19 09:00...	2017-08-20 18:...
8	LOUISIANA	August	Heat	LINCOLN	2017-08-19 09:00...	2017-08-20 18:...
9	LOUISIANA	August	Heat	JACKSON	2017-08-19 09:00...	2017-08-20 18:...
10	LOUISIANA	August	Heat	UNION	2017-08-19 09:00...	2017-08-20 18:...
11	LOUISIANA	August	Heat	OUACHITA	2017-08-19 09:00...	2017-08-20 18:...
12	LOUISIANA	August	Heat	CALDWELL	2017-08-19 09:00...	2017-08-20 18:...
13	LOUISIANA	August	Heat	WINN	2017-08-19 09:00...	2017-08-20 18:...
14	LOUISIANA	August	Heat	LA SALLE	2017-08-19 09:00...	2017-08-20 18:...
15	LOUISIANA	August	Heat	GRANT	2017-08-19 09:00...	2017-08-20 18:...
16	LOUISIANA	August	Heat	NATCHITOC...	2017-08-19 09:00...	2017-08-20 18:...
17	LOUISIANA	August	Heat	SABINE	2017-08-19 09:00...	2017-08-20 18:...
18	LOUISIANA	August	Tornado	CAMERON	2017-08-26 11:22...	2017-08-26 11:...
19	LOUISIANA	August	Storm Surge/Tide	VERMILION	2017-08-27 08:30...	2017-08-30 14:...
20	LOUISIANA	August	Storm Surge/Tide	ST. MARY	2017-08-27 08:30...	2017-08-30 15:...
21	LOUISIANA	August	Storm Surge/Tide	EAST CAME...	2017-08-27 08:30...	2017-08-30 07:...
22	LOUISIANA	August	Storm Surge/Tide	WEST CAME...	2017-08-27 08:30...	2017-08-30 07:...
23	LOUISIANA	August	Flash Flood	CALCASIEU	2017-08-27 11:17...	2017-08-30 16:...
24	LOUISIANA	August	Tornado	VERMILION	2017-08-27 13:15...	2017-08-27 13:...
25	LOUISIANA	August	Tornado	IBERIA	2017-08-27 13:35...	2017-08-27 13:...
26	LOUISIANA	August	Tornado	CAMERON	2017-08-28 03:39...	2017-08-28 03:...
27	LOUISIANA	August	Flash Flood	BEAUREGARD	2017-08-28 12:00...	2017-08-30 16:...
28	LOUISIANA	August	Flash Flood	VERMILION	2017-08-28 13:00...	2017-08-28 14:...
29	LOUISIANA	August	Flash Flood	LAFOURCHE	2017-08-29 07:00...	2017-08-29 09:...
30	LOUISIANA	August	Flash Flood	ST. CHARLES	2017-08-29 08:00...	2017-08-29 10:...
31	LOUISIANA	August	Flash Flood	ST. JAMES	2017-08-29 09:00...	2017-08-29 10:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
32	LOUISIANA	August	Tornado	VERMILION	2017-08-29 16:00...	2017-08-29 16:...
33	LOUISIANA	August	Tornado	ACADIA	2017-08-29 16:09...	2017-08-29 16:...
34	LOUISIANA	August	Tornado	LAFAYETTE	2017-08-29 16:34...	2017-08-29 16:...
35	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 11:56...	2017-08-31 07:...
36	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:00...	2017-08-31 07:...
37	LOUISIANA	August	Flood	CAMERON	2017-08-30 12:00...	2017-08-31 23:...
38	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:59...	2017-08-31 07:...
39	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 12:59...	2017-08-31 07:...
40	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 12:59...	2017-08-31 07:...
41	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 13:00...	2017-08-31 07:...
42	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 13:17...	2017-08-31 07:...
43	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 13:20...	2017-08-31 07:...
44	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 13:23...	2017-08-31 07:...
45	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 14:00...	2017-08-31 07:...
46	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 14:20...	2017-08-31 07:...
47	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 14:28...	2017-08-31 07:...
48	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:00...	2017-08-31 07:...
49	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:00...	2017-08-31 07:...
50	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 15:01...	2017-08-31 07:...
51	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:30...	2017-08-31 07:...
52	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 15:30...	2017-08-31 07:...
53	LOUISIANA	August	Flash Flood	DE SOTO	2017-08-30 15:39...	2017-08-31 07:...
54	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 16:15...	2017-08-31 07:...
55	LOUISIANA	August	Tropical Storm	SABINE	2017-08-30 16:45...	2017-08-30 22:...
56	LOUISIANA	August	Tropical Storm	NATCHITOC...	2017-08-30 16:45...	2017-08-30 22:...
57	LOUISIANA	August	Tropical Storm	UNION	2017-08-30 16:45...	2017-08-30 22:...
58	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
59	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
60	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
61	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
62	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
63	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
64	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...
65	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 17:00...	2017-08-31 07:...

	State	Month	Event_Type	CZ_Name	Begin_Date_Time	End_Date_Time
66	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:21...	2017-08-31 07:...
67	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:30...	2017-08-31 07:...
68	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:30...	2017-08-31 07:...
69	LOUISIANA	August	Flash Flood	SABINE	2017-08-30 17:42...	2017-08-31 07:...
70	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:00...	2017-08-31 07:...
71	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:09...	2017-08-31 07:...
72	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 18:10...	2017-08-31 07:...
73	LOUISIANA	August	Flash Flood	WINN	2017-08-30 18:30...	2017-08-31 07:...
74	LOUISIANA	August	Flash Flood	DE SOTO	2017-08-30 19:00...	2017-08-31 07:...
75	LOUISIANA	August	Flash Flood	NATCHITOC...	2017-08-30 19:00...	2017-08-31 07:...
76	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
77	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
78	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
79	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-30 19:30...	2017-08-31 07:...
80	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
81	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
82	LOUISIANA	August	Flash Flood	WINN	2017-08-31 01:00...	2017-08-31 07:...
83	LOUISIANA	August	Flash Flood	WINN	2017-08-31 03:05...	2017-08-31 07:...
84	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-31 03:30...	2017-08-31 07:...
85	LOUISIANA	August	Flash Flood	RED RIVER	2017-08-31 06:00...	2017-08-31 07:...
86	LOUISIANA	September	Flood	CAMERON	2017-09-01 00:00...	2017-09-07 23:...

```
x2 = groupsummary(Impacted2 , "CZ_Name" , "sum", "Property_Cost")
```

```
x2 = 30x3 table
```

	CZ_Name	GroupCount	sum_Property_Cost
1	ACADIA	1	200000
2	BEAUREGARD	1	15000000
3	BIENVILLE	1	0
4	BOSSIER	1	0
5	CADD0	1	0
6	CALCASIEU	1	60000000
7	CALDWELL	1	0
8	CAMERON	4	72000
9	CLAIBORNE	1	0

	CZ_Name	GroupCount	sum_Property_Cost
10	DE SOTO	3	0
11	EAST CAME...	1	0
12	GRANT	1	0
13	IBERIA	1	0
14	JACKSON	1	0
15	LA SALLE	1	0
16	LAFAYETTE	1	0
17	LAFOURCHE	1	0
18	LINCOLN	1	0
19	NATCHITOC...	21	0
20	OUACHITA	1	0
21	RED RIVER	9	0
22	SABINE	15	0
23	ST. CHARLES	1	0
24	ST. JAMES	1	0
25	ST. MARY	1	0
26	UNION	2	0
27	VERMILION	4	5000
28	WEBSTER	1	0
29	WEST CAME...	1	0
30	WINN	6	0

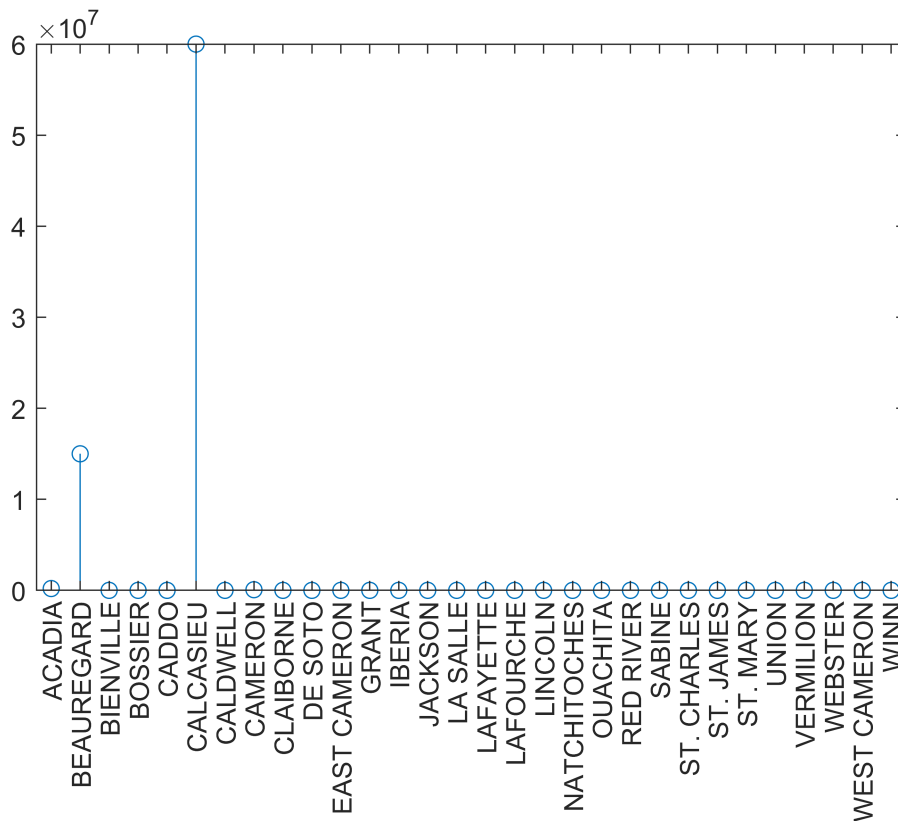
```
x2 = sortrows(x2, 'sum_Property_Cost', 'descend')
```

```
x2 = 30x3 table
```

	CZ_Name	GroupCount	sum_Property_Cost
1	CALCASIEU	1	60000000
2	BEAUREGARD	1	15000000
3	ACADIA	1	200000
4	CAMERON	4	72000
5	VERMILION	4	5000
6	BIENVILLE	1	0
7	BOSSIER	1	0
8	CADDO	1	0
9	CALDWELL	1	0

	CZ_Name	GroupCount	sum_Property_Cost
10	CLAIBORNE	1	0
11	DE SOTO	3	0
12	EAST CAME...	1	0
13	GRANT	1	0
14	IBERIA	1	0
15	JACKSON	1	0
16	LA SALLE	1	0
17	LAFAYETTE	1	0
18	LAFOURCHE	1	0
19	LINCOLN	1	0
20	NATCHITOC...	21	0
21	OUACHITA	1	0
22	RED RIVER	9	0
23	SABINE	15	0
24	ST. CHARLES	1	0
25	ST. JAMES	1	0
26	ST. MARY	1	0
27	UNION	2	0
28	WEBSTER	1	0
29	WEST CAME...	1	0
30	WINN	6	0

```
stem(x2.CZ_Name,x2.sum_Property_Cost)
```



From above Summary Table x2 the Property Cost Assesment Could be drawn:

1. CALCASEIU
2. BEAUREGARD
3. ACADIA

Conclusions and Recommendations

1. From the Geographic Plot, It is clearly Visible that the Events originated from Texas and Louisiana has high density in Texas Region.
2. From histogram it is clearly visible that the countries affected in State 1 (Texas) are:
 - SABINE (27 Events)
 - NATCHITOCHES & HARRIS (21 Events)
 - GALVESTON (17 Events)

From above results we conclude that Insurance Team should bet sent to above regions in Texas.

3. From Histogram it is visible that the Countries with most events in State 2 which is LOUISIANA are

- NATCHITOCHEs
- SABINE
- RED RIVER

Since SABINE is common in both the States. So, There could be some special arrangements in order to prevent from consequences.

4. Three Most Impacted Counties in State 1 Texas with Highest Property Cost

1. GALVESTON
2. FORD BEND
3. MONTGOMERY

5. Three Most Impacted Counties in State2 Louisiana Could be drawn:

1. CALCASEIU
2. BEAUREGARD
3. ACADIA