## 

DAT 530 Final Project Milestone Two

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The ideal visualization for the state budget office is a PowerPoint presentation that shows general storm activity and information about how money and resources can be allocated in response. It is common for groups or individuals to provide brief presentations demonstrating concerns and requesting funds from the members of the state budget office, so the PowerPoint medium is optimal in this situation. The presentation should contain a handful of slides that demonstrate severe storm patterns and quantifiable damages followed by a couple of slides that recommend additional funding and explain potential benefits such as lives saved or damages mitigated. One effective visual display would be a regional map of severe storms by location on one slide and then a state map on the next slide. This would be the PowerPoint version of click-through interaction and would provide not only important details but also additional context. Another visual display that could potentially be incorporated into the presentation is a bar chart of damages (property and crop) broken down by event\_type. This would be effective because money talks to the members of the state budget office and this type of bar chart would be a great way to make sure that the numbers resonate with them.

The ideal visualization for the Emergency Management Agency is an interactive dashboard that they can use themselves to discover information about recent severe storms and typical damages and responses. A dashboard makes the most sense because they can use filters and other dashboard features to look into specific areas where they have ideas about potential information. It would be best to approach the dashboard by trying to retain granularity from the original dataset and use individual visualizations as gateways for the EMA to discover relationships and trends that are useful to them. The first page of the dashboard would be centered around a United States map that shows severe storm volume across the country. The map would include filters for attributes such as event\_type and date, so that the audience can compare different times of year if they wish. The audience members could also interact with the map, in a similar fashion described in the presentation above, in order to view individual regions or states, as the data is broken down by county. If the dashboard were to be expanded further, visual display tools such as histograms or density curves could be used to show damages or a scatterplot could be used to show injuries and deaths.

The ideal visualization for the general public is a one-page pamphlet that emphasizes the importance of each individual’s role when it comes to preparedness and therefore damage minimization of severe weather events. This medium makes the most sense when information needs to be distributed to such a large number of individuals. The one-pager is effective because it is not overwhelming and can be easily digested by just about anyone, as long as it is designed carefully. In this scenario, the pamphlet would be divided into four sections. The first section would be the header that includes a captive title and details about the source of the information. The second section would be two or three key summary statistics that demonstrate the risks and damages of severe storms. The third section would be a visual display or two that the audience can use to gather information about storm trends that are applicable to them, such as information broken down by time of year or county. Finally, the fourth section would include two or three takeaways, recommendations, or guidelines that stress the importance of each individual’s role when it comes to preparedness for these severe storms.