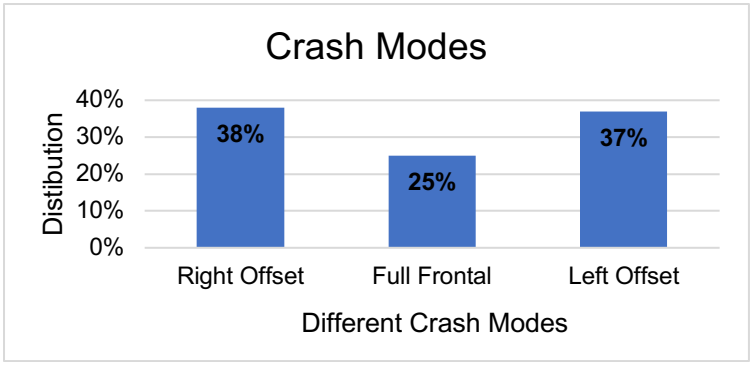
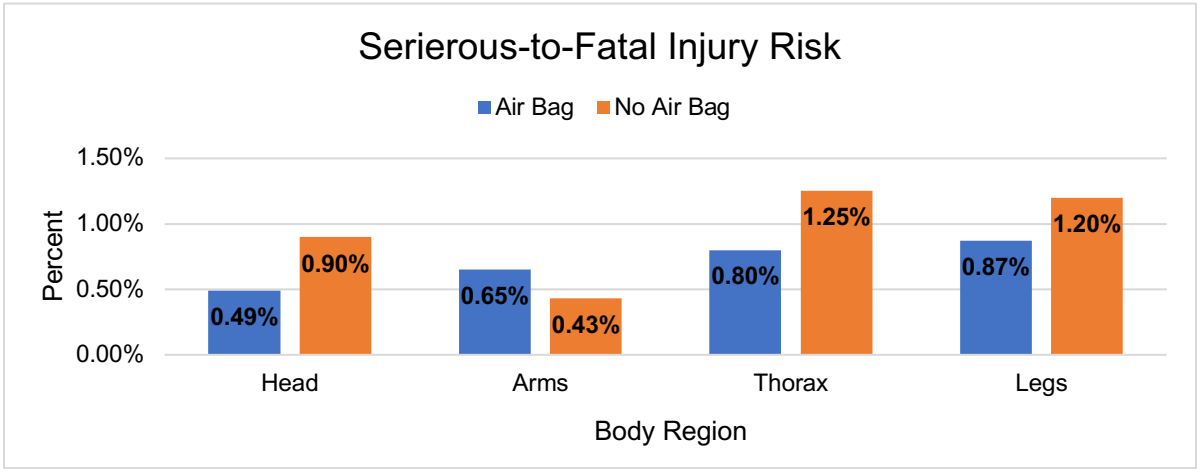


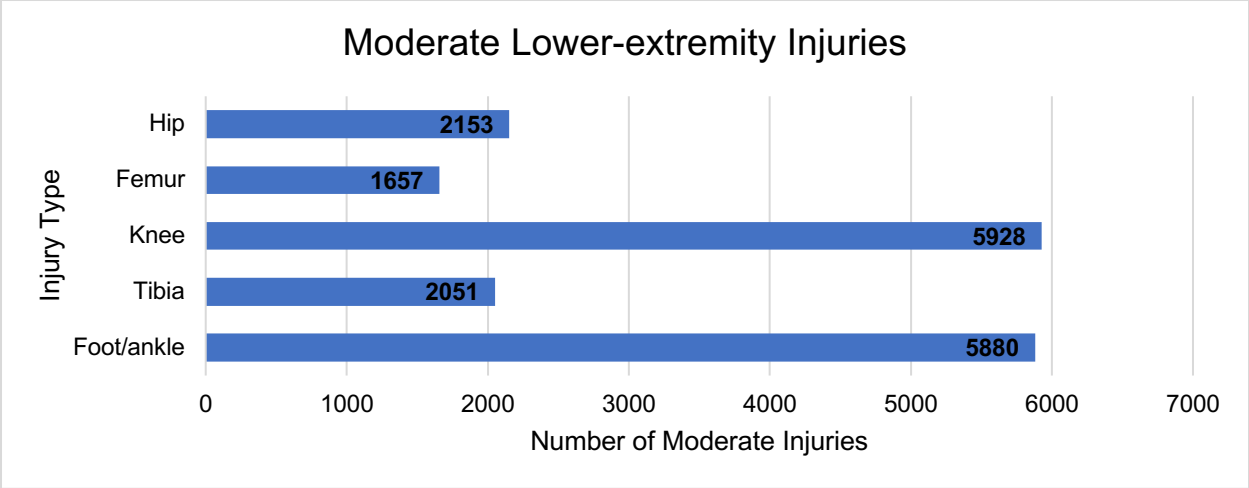
Document 12.1

The purpose of this figure is "to show the distribution of frontal crashes." I made many minor changes to this chart. First, I eliminated the 3-D and added spaces between the columns to make the chart more readable. Secondly, for the sake of constancy, changed the font and colors. According to McGee, "if you have three tables in a proposal, you want to demonstrate a sense of cohesion among the tables." "Arial" is a business serious typeface, and it is often used on posters presentations of research. I made all of the columns the same color since I was only dealing with one set of data.



Document 12.2

The purpose of this figure is to "show how the presence of air bags affects driver's risk of sustaining serious injuries in four body regions." I made several changes to this graph. First, I changed the chart from a combined bar and line graph to a column chart (vertical bar graph). Line graphs illustrate trends in data by showing the relationship between two variables, while column charts compare sets of data. Secondly, I changed the order of the data for the sake of consistency. The new order corresponds to the regions on a human body looking from head to toe. This is how the data is organized in Document 12.3. Lastly, I moved the legend to the top of the graph to emphasize that the purpose was to compare the effect of air bags.



Document 12.3

The purpose of this graph was "to show the average number of moderate lower-extremity injuries occurring annually to front seat occupants." I made many major changes to this graph. First, I eliminated the 3-D and changed the chart from a pie chart to a horizontal bar chart to increase readability. Pie charts do not effectively communicate data since most people cannot perceive small differences between percentages. Moreover, the purpose of pie charts is to show the ratio between the part and the whole. Horizontal bar charts effectively compare larger sets of data. I also wanted to highlight the "scope of the problem" by allowing the bars to stretch across the page. Secondly, I labeled the graph with the number of moderate injuries instead of labeling with percentages. The scientists specifically wanted to communicate the large number of injuries. Lastly, I combined the data from tib.plat and tib.shaft into one injury type. The researcher's level of detail is unnecessary and visually inconsistent with the other data points.

Creating Effective Visuals

for presentations and conference papers

Choose the Right Graph

Comparing data?

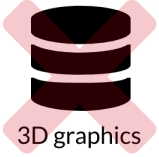
Bar charts

Illustrating trends in data?

Line graphs

Avoid Pie Charts and 3D Graphics

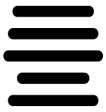
Pie charts



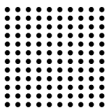
3D graphics

Follow Design Principles

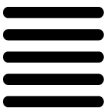
Contrast



Alighnment



Repatition



Proximity

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Lily Daniels

Dr. Daniel Richards

Technical Writing

5 October 2019

Rationale

According to Jeff Rum, “Infographics communicate valuable information quickly, without sacrificing elegance and ease.” Since infographics are a marriage of showing and telling, it is important to follow design principles, as well as write with attention to the purpose, intended audience, and context. In this assignment, I created an infographic about making effective visuals. According to the scenario described in the case study, I needed to communicate a brief set of guidelines for choosing graphics. My audience was a group of scientists, and their graphics would be used for presentations and conference papers, such as the 20th International Technical Conference on the Enhanced Safety of Vehicles.

The title and subtitle of my infographic are short and descriptive. The body is broken into three main sections. The information I chose to include was determined by my audience. According to the case study, the scientists struggled with selecting the correct type of graphic to display the data. For example, they used a line chart instead of a bar graph. In the first section, I addressed this issue by communicating the appropriate usage of those two types of charts. Bar charts are used to compare data, while line graphs are used to illustrate trends in data. Secondly, I included a section under “Choose the Right Graph” entitled “Avoid Pie Charts and 3D Graphics.” These common mistakes make visuals difficult to read. Since the four design principles are central to effective visuals, I briefly listed them in the third section even though the scientist followed the principles fairly well. Lastly, I included my sources at the bottom of the

infographic. The sources not only establish my credibility, but they also point the reader toward more information on the topic of data visualization.

Although the process of creating effective visuals has many steps, the content of my infographic is simplistic. I decided to include only the essentials and featured icons with brief descriptions rather than massive amounts of text. According to the Kissmetric Blog, “too many infographics are “short and the ‘graphic’ and long in the ‘info’.” Moreover, since I was limited to a page, my infographic was meant to be a summary of the guidelines rather than a complete instruction manual.

I used phrased that echoed the language of instructional manuals since this infographic is instructional in nature. For example, the title is “Creating Effective Visuals” which is a gerund. The body is organized into three distinct parts. The title of each section is phrased as imperatives, such as “Choose the Right Graph.”

In addition to using effective language, I followed the design principles of repetition and proximity to guide the reader through the infographic. To give visual hierarchy, the title and subheadings were written in the same font, “Gilda Display,” and there was extra space between each section. Proximity helps group the information, and white space improves the flow and readability of infographics.

When I designed my infographic, I started with a blank template because I wanted to be sensitive to my audience. Many of the templates on Pictochart and Easel.ly were flashy but lacked professionalism. For example, many Easel.ly template featured cartoon characters and cursive fonts. In contrast, I used black, minimalistic icons and business serious typefaces, “Gilda Display” and “Lato”, because I was creating the infographic for a professional setting.

The color scheme and font choices I made were inspired by the article by Iris Leung. I followed the “Rule of Three Colors,” and chose light blue as my primary color and black and white as my commentary colors. In order to increase readability and contrast, I made the font black and the background light blue.

The purpose of my infographic was to use visuals to teach people how to use visuals. Images are powerful, and people who know how to make effective visuals have a powerful tool. In the words of David McCandless, “There is something almost quite magical about visual information…It’s effortless. It literally pours in.”