

CGT 270 Data Visualization
Makeover Monday #3 (2020 Dataset)

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Date: 11/02/21

Lab section: Tuesday

Show your work!!!

Acquire

Week: 11 Date: March 2 Year: 2020 Data: Costing Kids Sleep

Source Article/Visualization:

Costing Kids Sleep

<https://www.makeovermonday.co.uk/data/data-sets-2018/>

Represent



On average, none of the grades meets the CDC's recommendation of 9 to 12 hours of sleep for 6- to 12-year-olds and 8 to 10 hours of sleep for 13- to 18-year-olds.

	Hours Needed*	Hours Averaged*	Deficit
Kindergarten	9.5	8.5	1.0
First grade	9.1	8.4	0.7
Second grade	9.3	8.3	1.0
Third grade	8.6	8.1	0.5
Fourth grade	8.9	7.9	1.0
Fifth grade	8.9	7.8	1.1
Sixth grade	8.6	7.6	1.0
Seventh grade	8.5	7.3	1.2
Eighth grade	8.5	7.4	1.1
Ninth grade	8.3	7.1	1.2
10th grade	8.4	6.8	1.6
11th grade	8.4	6.9	1.5
12th grade	8.0	6.6	1.4

*As reported by parents

SOURCE: Survey of 1,000 parents

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Critique

Critique the visualization: what do you like about it, dislike about it, what do you plan to do differently?

While this is a nice visualization, something I don't like about it is that the chart type is a table. I think this gives the viewer a lot of information to look at and it doesn't communicate as fast as different chart types do. I also think a table doesn't show the correlation between sleep deficit and age. Looking at the chart, it's harder to discern that an older student in high school is getting less sleep than a child in elementary school. This can be showed better in a different type of chart. I also don't understand the color choice for the deficit column. do the different shades of red-yellow mean something or is it just for decoration?

Based on your knowledge of the Periodic Table of Visualization Methods (discussed in class this week), discuss which one of the 6 categories does the visualization you provided in the Represent stage falls in. Identify the method most closely related to the visualization in the Represent Stage and discuss the characteristics: overview, detail, detail AND overview, divergent thinking, convergent thinking. Refer to Week 10 Readings to assist with categorizing the visualization.

The visualization that I provided in the Represent stage is a table and falls into the Data Visualization category. This can also be categorized as a Structure Visualization and a Detail AND Overview chart type meaning this method allows both macro patterns and paying attention to detail information about individual items.

Mine

What question(s) are you attempting to answer?

- How much sleep are children losing?
- Are children losing an unhealthy amount of sleep?
- What age of students lose the most amount of sleep?

Filter

Show (display, list, make it visible) the filtered data.

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	A	B	C	D
1	Grade	Hours Needed	Hours Averaged	
2	Kindergarten	9.5	8.5	
3	First grade	9.1	8.4	
4	Second grade	9.3	8.3	
5	Third grade	8.6	8.1	
6	Fourth grade	8.9	7.9	
7	Fifth grade	8.9	7.8	
8	Sixth grade	8.6	7.6	
9	Seventh grade	8.5	7.3	
10	Eighth grade	8.5	7.4	
11	Ninth grade	8.3	7.1	
12	10th grade	8.4	6.8	
13	11th grade	8.4	6.9	
14	12th grade	8.0	6.6	
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Stakeholders

- Who is your audience? What assumptions did you make? What visualization tool/software did you use?
- The audience would first of all be school boards and school/district officials as a lot of the article directs the issue with a high sleep deficit to school starting too early and found a direct correlation between hours and homework and hours of sleep. The audience would probably also be concerned parents who want to know if children today are getting a healthy amount of sleep given course work and other social pressures. Another possible audience would be government officials and scientists as they have the biggest influence in solving this problem.

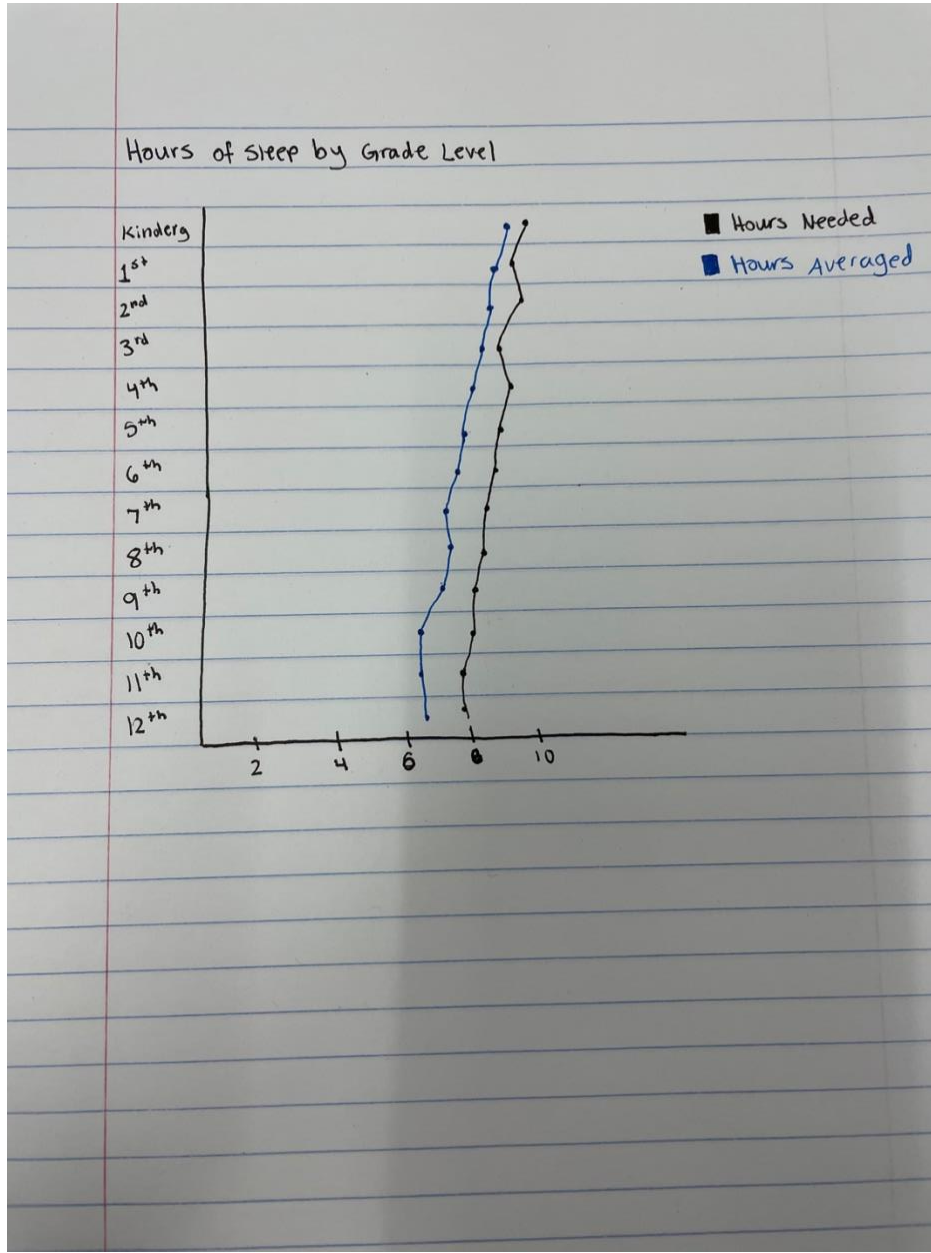
What to submit: This document in PDF format only (if you do not know how to do this, ask).

Choose the best layout for your makeover visualization: Portrait or Landscape, Remove the page of the layout that you DO NOT choose. No blank pages!

NEW **Sketch your Makeover**

In the space below, sketch out your ideas for refined visualization. You must use pen/pencil and paper to sketch out your idea, then take a photo of your sketch and include it in the space below.

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Refine (Makeover – Portrait View)

In the space below, show the computer-generated version of your sketch using the visualization tool of your choice. DO NOT draw what you sketched. The visualization should be created with the visualization tool (Tableau, Excel, Power BI, etc., of your choosing). Remember, the purpose of visualization is “*insight*.” Take and include a screenshot of your visualization and include it below. Use Data Visualization Best Practices (see data visualization checklist).

Hours of Sleep by Grade Level

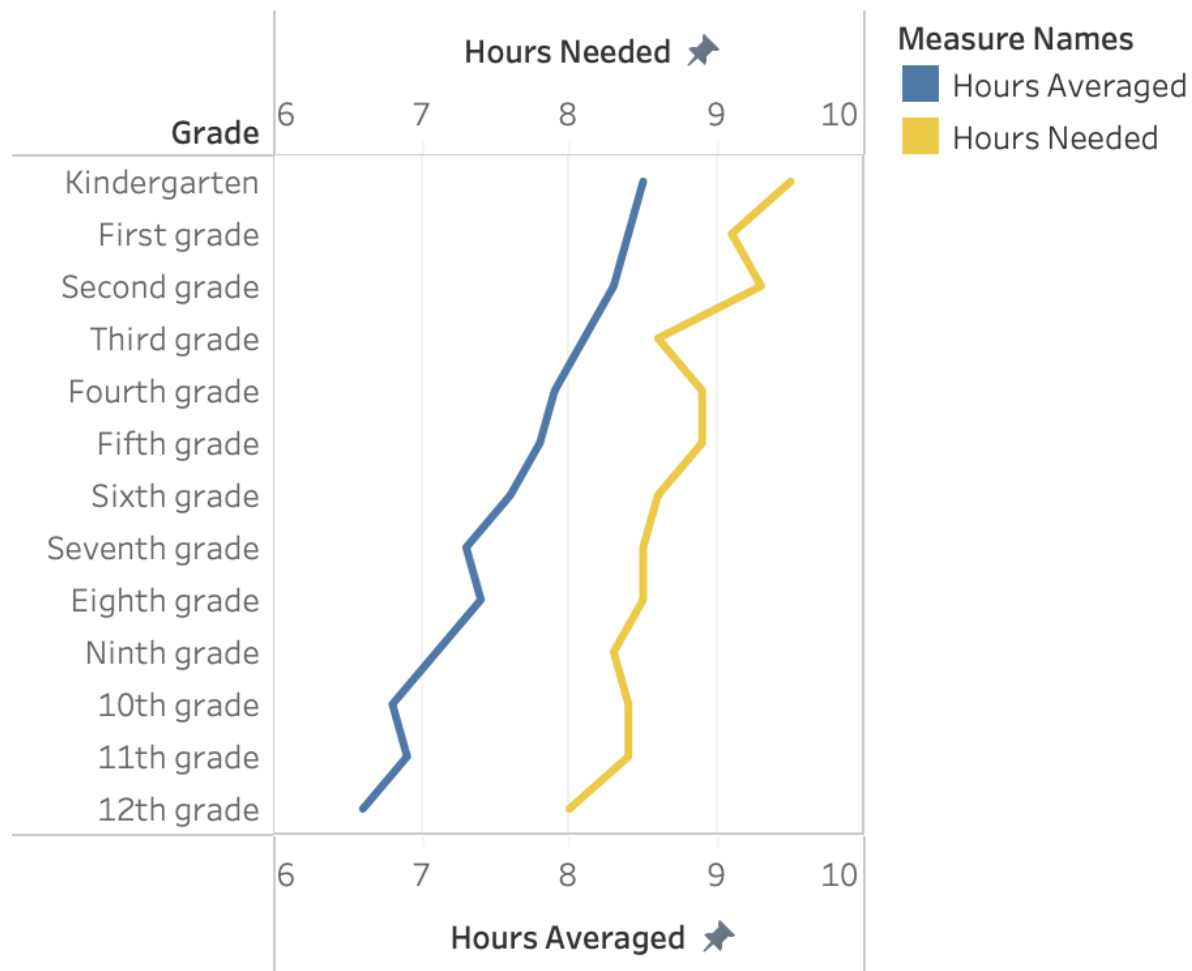


Figure Caption. Hours of sleep needed (yellow) as recommended by the CDC per grade level compared to hours of sleep averaged (blue) by grade level.

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Resources

Data Visualization Checklist:

http://stephanieevergreen.com/wp-content/uploads/2016/10/DataVizChecklist_May2016.pdf

How to give constructive criticism:

<https://personalexcellence.co/blog/constructive-criticism/>

Sample Makeovers

<https://www.makeovermonday.co.uk/gallery/>

Grading Rubric

Excellent (11-15 pts)	Good (6 -10 pts)	Fair (2-5 pts)	Needs Improvement (0 - 1 pt)
Meets ALL or most of these: Makeover is esthetically pleasing (color, perception), best practices followed (insightful), Correct dataset downloaded; provided an interesting point of view of the data; critiqued previous makeover, critique is constructive (indicates one thing that is done well, and one thing that could be done differently, what will be done to improve the visualization), assumptions (more than one) are listed.	Meets MOST of these: Makeover is esthetically pleasing (color, perception), best practices followed (insightful), Correct dataset downloaded; provided an interesting point of view of the data; critiqued previous makeover, critique is constructive (indicates one thing that is done well, and one thing that could be done differently, what will be done to improve the visualization), assumptions (more than one) are listed.	Consistently meets SOME of these: Makeover is esthetically pleasing (color, perception), best practices followed (insightful), Correct dataset downloaded; provided an interesting point of view of the data; critiqued previous makeover, critique is constructive (indicates one thing that is done well, and one thing that could be done differently, what will be done to improve the visualization), assumptions (more than one) are listed.	Little to no evidence of the understanding of the data visualization process. Lackluster makeover or no makeover. Little effort.
Sketch included: hand drawn [5 pts]	Sketch included, but was generated by computer [2 pts]	No sketch included. [0 pts]	
Makeover Monday Assessment Completed [5 pts]	Makeover Monday Assessment not completed [0 pts]		