Your task for this discussion is as follows:

1. Select a type of graph(s) x discussed in the book and give two real-world x examples of when the graph(s) would be useful to you in a professional application and in your everyday life.
2. Provide graph illustration(s). X You should only explain why the type of graph you have selected is the best for your example. X
3. Continue with the discussion and share proposed next steps based on your results.

Remember to create a narrative in paragraph structure (4-6) sentences per paragraph.

You need to support your writing with scholarly resources. Your textbook is considered a scholarly resource.

<https://csuglobal.libguides.com/writingcenter/apa7_writing_templates/discussions>

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My company depends on graphs to not only track internal team velocity but also to communicate clinical summaries to patients that use our products.

In our patient portal each patient has access to their clinical summaries in the form of various graphs. Figure 1 displays a test patient’s BMI (Body Mass Index). Employing a time series graph for Figure 1 is a good fit because it allows a patient to understand changes in their BMI on a chronological scale (Holmes et al., 2018). However this graph can be improved. A provider creates vital signs summaries at irregular intervals. The x-axis can be modified to use a monthly time increment and each point on the graph can show the full date on hover of a selected point.

A notable alternative to a time series graph for vital signs is a time map. A time map can be useful when plotting data on a smaller time interval, for example hourly, over months (Watson, 2015). As a result, multiple metrics can be plotted and examined together on an hourly basis.

Internally my team tracks our velocity or work tickets completed for each two-week work period. For example, a period may have 10 tickets worth 63 points. If all tickets are completed, my team will have a velocity of 63. To gain a better understanding of the size of the tickets during each work period, we can use a histogram for the ticket values (see Figure 2). A histogram will allow my team to quickly identify the most frequent value of each completed ticket and potentially adjust future work periods to bring in more tickets of this value (Holmes et al., 2018).

References

Holmes, A., Illowsky, B., & Dean, S. (2018). *Introductory Business Statistics* (1st ed.). OpenStax.

Watson, M. C. (2015). Time maps: A tool for visualizing many discrete events across multiple timescales. In H. Ho (Ed.), *2015 IEEE International Conference on Big Data (Big Data)* (pp. 793–800). IEEE. <https://doi.org/10.1109/BigData.2015.7363824>.

**Figure 1**

*Vital Signs: BMI*

[FIGURE 1 HERE]

*Note*. Reprinted from Patient Ally, In *Patient Ally*, n.d., Retrieved October 14, 2020, from <https://www.patientally.com>. Copyright 2020 by Patient Ally. Reprinted with permission.

**Figure 2**

*Figure 2.12*

[FIGURE 2 HERE]

*Note.* Adapted from *Introductory Business Statistics* (1st ed.) by A. Holmes, B. Illowsky, & S. Dean, 2018, OpenStax, p. 78. Copyright 2018 by OpenStax.

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Mod 1 example

My company recently released a telehealth product. I’m a software developer and I had the opportunity to work on building the user interface for the survey which appears after a customer ends their video call. The survey consists of several questions, two of which I’ll discuss below.

“What can be improved?” This categorical question uses a nominal level of measurement. Nominal scale data uses labels to classify unordered data (Holmes et al., 2018). The data is time series as it will be collected over the duration of the product’s lifetime. The categories include the following: audio quality, video quality, ease of connectivity, and ease of use. From the responses given, we can infer over time whether or not any software changes made as the result of customer feedback are adjusting customer opinion.

“How likely is it that you would recommend this service to a friend or colleague?” This quantitative question uses an interval level of measurement. Unlike nominal scale data, interval scale data is ordered. Furthermore the values maintain a meaningful rank (Holmes et al., 2018). This question rates a likelihood from 1, the lowest rating, to 5, the highest rating. The question variable is continuous (measured). Again, the data gathered is time series.

The question may not be measuring the expected attitude; perhaps a customer may understand the question as, “How satisfied are you with this service?” rather than the likelihood of recommending the service.

To account for possible wording effects, we can run a survey experiment wherein some customers receive the original question and some receive a modified question (Krosnick, 2011). After which we can determine whether these questions measure different attitudes and thus if we are making the correct inference regarding the likelihood of recommendation.

References

Holmes, A., Illowsky, B., & Dean, S. (2018). Introductory business statistics. OpenStax.

Krosnick, J. A. (2011). Experiments for Evaluating Survey Questions. In J. Madans, K. Miller, A. Maitland,

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