



E/LA Virtual Learning

English I

April 27th, 2020



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Lesson: April 27th, 2020

Objective/Learning Target:

Analyze visual elements in different media, specifically graphs.

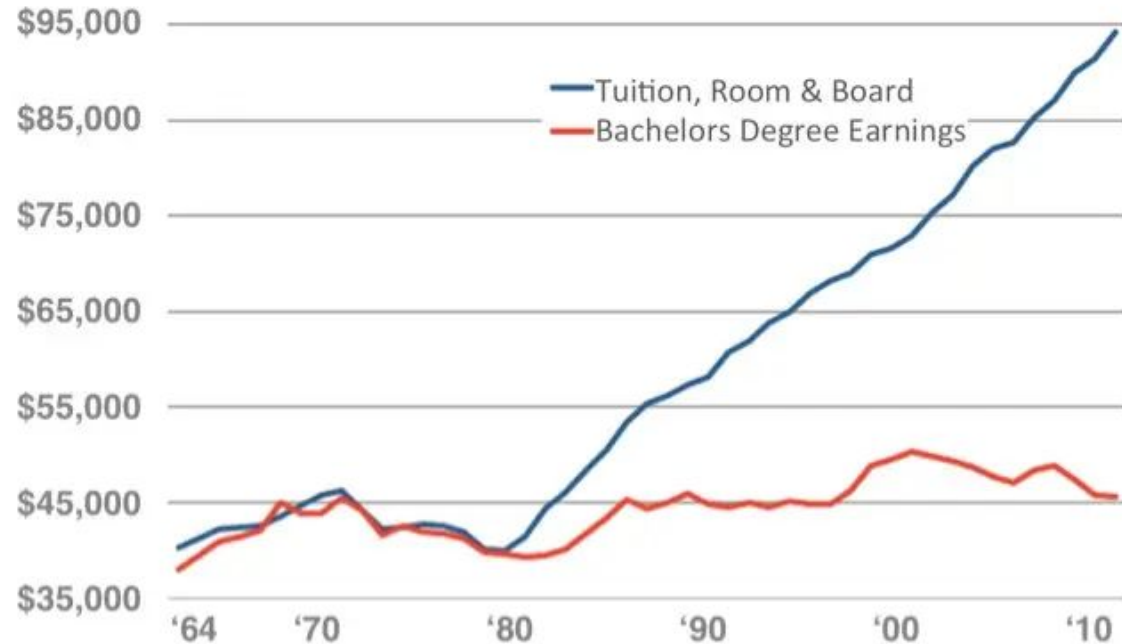
Draw appropriate conclusions

Do Now:

View the graph to the right. What do you notice? What information might be missing?

The diminishing financial return of higher education

Costs of 4-yr degree vs. earnings of 4-yr degree



Source: Source: U.S. Census Data & NCES Table 345.

Notes: All figures have been adjusted to 2010 dollars using the Consumer Price Index from the BLS.

Do Now, cont.

That graph comes from a 2012 *Business Insider* article that claims to show that a higher education is no longer worth the money. You can read it [here](#), if you're interested.

Do Now, cont.

On the website [Statistics How To](#), the authors break down the problems with the graph:

“The scale on this chart is fine. What *Business Insider* deduced from the chart is not. Have we ‘...lost the ubiquitous positive financial return on education’? No. [David Blake](#) read the chart without taking into account a key fact that *wasn't* on the chart: the cost of *not* going to college has diminished *even more*. That means, your prospects as a high school graduate are a lot worse than your prospects as a college graduate.

Another key piece of information is on the chart itself. Note the [average](#) yearly income a college grad can expect is about \$45,000 in 2010. That's **per year**. Over an average working lifetime (say, 43 years assuming retirement at age 65), that gives you an income of $\$45,000 * 43 = \$1,935,000$. Subtract that expensive college education (\$95,000) and your net earnings are \$1,840,000. Compare that to your average high school grad. They can expect to earn \$1,300,000 over their lifetime (Source: [The U.S. Department of Education](#)). That's quite a difference!

Do Now, conc.

In reading the explanation from *Statistics How To*, it becomes clear that the author of the *Business Insider* article did not include all of the necessary information to paint a complete picture of the financial reality of pursuing a college degree. Whether they did this intentionally to try to distort the truth or out of ignorance is unclear.

Lesson: Using Text Features

Writers of informational texts will use charts, graphs, and other text features to communicate information to their readers.

This can be a great way to concisely communicate data on a topic to their readers.

Lesson: Using Text Features, cont.

However, writers don't always do this with benign intentions. They will sometimes try to use the official-look of a graph to trick readers.

That is why it is important to know how to read graphs, and how to spot distortions that might be used to mislead you.

Activity: View graphs, complete chart

- Read this [infographic](#) on common ways that graphs can be misleading.
 - Note the 5 common ways the authors describe.
- There are 5 graphs on [this doc](#). Use [this handout](#) to explore how these graphs are misleading, and what conclusions you can draw.
 - You will need to File-Make a Copy of the handout.
 - Replace “Copy of” with your name.
 - Some work will be completed for you as an example.

Activity: Writing

After completing the activity, describe the ways that writers might use graphs to mislead their readers, and their reasons for doing so.

Activity: Writing, ex.

Writers can play with how the information appears in a graph. They might do this by manipulating the Y-axis to minimize differences, leaving out the baseline to exaggerate differences, or using the wrong type of graph to communicate information. They can also cherry-pick data from a smaller range, or reverse conventions. It's possible that sometimes they do this because they are inept at constructing graphs. More likely, they are trying to either confuse the reader, or outright mislead them into drawing the wrong conclusions about the data.

Reflection/extension

After completing the activity, do you feel better prepared to spot misleading graphs in articles or media you consume? Why/why not?

Let's go back to the [*Business Insider* article](#) from the Do Now. If you haven't already, read through the article. Notice the second graph in the article. Is it a good graph, or is it trying to trick us? Explain your thinking.