Causal Inference in the News Assignment

Length: 1-2 pages, single spaced, **plus** a causal diagram.

Find a news article that makes a **causal statement** [Hint: words like “causes”, “increases”, "improves" "affects" "reduces", ask if you're not sure]. This assignment will be easier if the article backs up that claim with evidence, but this is not a requirement.

In your paper, cite the article and make a brief summary of what the causal statement is, and the claim being made in context. Include both a direct quote of the statement, and your interpretation of that statement in the simplest terms possible.

Then, using dagitty, draw a causal diagram containing no more than 10 total variables, including your X and your Y (fewer is completely fine) that you might use to investigate this question. Make sure your diagram is easily visible (dagitty has a tendency of making the images very small – crop and zoom as appropriate).

Justify and explain your diagram: your choice of variables, the direction of arrows and which arrows aren’t there. Also explain which variables are **unobserved/unmeasurable** and why you think they’re unobserved.

Also in your paper, explain what would need to be done in order to identify the causal effect of interest – what back doors would need to be closed? Is it possible to do?

Then, explain whether you think the article properly identified their claim (for example, they might say “among group A, X increases Y”, which is a way of saying they control for A), or if there is an open back door that might explain a relationship between X and Y other than the causal effect of X on Y? **Explain intuitively** what you think they might be getting wrong (example: “the article says that X improves Y and they show with a graph that when X is high, Y is high too. But they don’t account for Z, which is related to both, and so the X <- Z -> Y back door is open. The relationship between X and Y on the graph includes not just the effect of X on Y, but also the fact that a high Z makes X and Y high at the same time, overstating the effect of X on Y.”

Rubric:

9-10: Identifies an actual causal statement in the article and presents it clearly. Has a reasonable diagram with good justification for variables included, which are observed or unobserved, and arrows **including** how your real-world understanding influences your diagram, accurate judgment of what would be necessary to identify the effect, and a reasonable critique of whether or not the article did so.

7-8: The causal statement may not be presented clearly, the diagram may not be well-justified, or there may be some minor errors in determining how to identify the effect and whether the news article did so. A paper that, assuming the diagram is true, is incorrect about how the effect can be identified, can earn no higher than an 8 (unless the reason you’re wrong is highly technical and beyond what we’ve learned in class), so be sure to be right! You can check this beforehand, there’s no reason not to!

6 or below: Poor justification for causal diagram, misinterpretation of the article, incorrect identification.