## Political Science 202 Introduction to Political Analysis Fall 2021: Problem Set #5

Due in Turnitin (Blackboard) on Friday, October 22 at 10am. 5 points in total. Late submissions are penalized with 1 point per 24 hours. MAKE SURE THAT YOU RECEIVED THE TURNITIN UPLOAD CONFIRMATION and SAVE THE CONFIRMATION. If you have trouble uploading to Turnitin or don't receive a confirmation, email as an attachment to your TA before the deadline. If you don't get a reply confirming that you handed it in, send it again.

- 1. A researcher is interested in the effect of economic development on how democratic a county is. She hypothesizes that countries that have higher economic development are more democratic than countries that have low economic development. She measures economic development using GDP per capita. She measures how democratic a country is using an index that goes from -10 (fully authoritarian) to +10 (fully democratic). She wants to test whether variation in economic development causes variation in how democratic a country is. In this homework, you will work through the 4 hurdles to establishing causality that we discussed in class.
- a. First hurdle: Is there a credible causal mechanism that connects X to Y? Provide a causal mechanism (=theoretical story) for how higher economic development could lead a country to be more democratic.
- b. Second hurdle: Can we rule out the possibility that Y could cause X? Discuss whether or not it is possible/likely that how democratic a country is has a causal effect on its economic development.
- c. Third hurdle: Is there covariation between X and Y? What would we expect to find in our data if there is covariation between economic development and how democratic a country is? What would we expect to find if there is no covariation?
- d. Fourth hurdle: Have we controlled for all confounding variables (Z) that might make the association between X and Y spurious? Discuss one potential confounding variable and discuss how variation in that variable could cause variation in both economic development and how democratic a country is.
- 2. Think about an important decision in your life. Use process tracing to describe how you reached that decision. Lay out your steps in a short essay (between ½ and 1 typed page). Note: You should *not* use a decision that was already discussed in lecture or discussion section.