

Name: \_\_\_\_\_

UIN: \_\_\_\_\_

*Note: You are required to solve this task on your own.*

Can we improve productivity and employee well-being using prevention? For a first order evaluation of that question, a researcher investigates how **vaccination against the flu (X)** affects the **propensity to get sick with the flu (Y)**. The problem is economically relevant since the disease burden is large and most of the costs is due to lives lost and foregone work. The researcher knows in a company setting who was vaccinated and who was sick with the flu and she wants to run the following **ordinary least square (OLS)** regression:

$$Sick\ with\ Flu_i = \beta_0 + \beta_1 Vaccinated_i + \varepsilon_i$$

List **as many** potential omitted variables **as possible** (when OLS is used).

Omitted Variable

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**Is the following a VALID instrument?**

- Offer vaccination to every employee
- Mandatory random vaccination of individuals
- Random offers to get vaccinated to some employees