

Writing Economic Hypotheses

- Start with a **research question**. What do you want to know?
- Formulate your hypothesis as a **statement** predicting an outcome or answer.
- The hypothesis must be **specific** and written in clear, understandable, unambiguous, simple language
- A hypothesis must be **testable**. Your results will support or fail to support your prediction.
- To be testable, you need to identify **relevant variables** (things you are measuring) and have access to or generate **appropriate, reliable data**.

Examples:

H₁: Education levels are more strongly associated with per capita income growth than population growth.

Research question: Do inputs affect economic outcome measures (e.g., growth in population, income and employment) differently? More specifically, in this case, do education levels affect economic outcomes differently?

Testable?: Yes, by inspecting magnitude and significance of the education levels coefficient in regressions on per capita income growth and population growth.

Variables and data: Dependent variables = per capita income growth and population growth. Independent variables = % population age 25+ with a bachelor's degree, % population age 25+ with a graduate degree. Data is available for all of these variables from the Census Bureau.

H₂: An increase in the percent of the labor force with a college degree has a stronger relationship to employment growth in regions with a higher percentage of employment in skill-intensive industries.

Research question: Do policy inputs interact with the industrial structure and legacy of a region to influence economic outcomes? More specifically here, are college educations more important in determining employment growth in regions with skill-intensive industries (e.g., computer development) as compared to regions where less skill-intensive industries (e.g., pipe manufacturing) predominate?

Testable?: Yes, by inspecting magnitude and significance of an interaction term between education levels and percent employment in high-skill industries. (You could also test the significance of separate regressions for high-skill and low-skill regions.)

Variables and data: Dependent variable = employment growth (Census or Bureau of Economic Analysis data). Independent variables = % population age 25+ with a bachelors (or other college) degree (Census data), % employment in high-skill industries (defined following the existing literature and data gathered from County Business Patterns [Census Bureau]).