

# Research Proposal

ECO 230: Business Research and Communication

## 1

### 1.1 Goals and Learning Objectives

#### Goals and Learning Objectives

- Goal: Learn the fundamental characteristics of a research proposal.
- Learning objective: LO1: Develop the ability to define a research problem. Formulate research questions and hypotheses that are measurable, well-defined, address the overall problem, are directly related, and reflect the scope of the problem.

## 2 Variables used in Research

### 2.1 Variables and Unit of Analysis

#### Variables and Unit of Analysis

- **Unit of analysis:** that which defines a single observation from your population, from which you can draw measures of one or more variables.
- **Variable:** A measure of a very specific attribute from an observation in your population.
- Each observation in your sample is measured on multiple variables

### 2.2 Types of Variables

#### Types of Variables in Research

- **Outcome variables:** What is the research trying to explain?
- **Explanatory variables:** What are you investigating that could affect the outcome variable?
- **Control variables:** What other information (eg: demographic) might be correlated with or explain outcome?

## 2.3 Examples

### Examples

**Q: “How does living on campus affect academic performance?”**

- Unit of analysis: single UW-L college student.
- Outcome variable: GPA (Scale 0.0-4.0)
- Explanatory variable: housing situation (on or off)
- Control variables: gender, college (CLS, CBA, SAL)

**Q: “How does state revenue affect public education expenditures?”**

- Unit of analysis: A single U.S. state.
- Outcome variable: Public education expenditure
- Explanatory variables: Tax Revenue
- Control variable: Region (Northeast, Southeast, Southwest, Midwest, Northwest)

## 3 Research Proposal

### 3.1 Parts of a Research Proposal

#### Research Proposal

#### Research proposal

- Written statement of what the research project will entail
- Purpose is to gain permission, or ask for funding, to conduct the research.
- This is *not* just an introduction of a research paper.

#### Components of a Research Proposal

- Purpose of the research
- Background and motivation: Why is more research valuable?
- Research design
- Outcomes
- Others: Deliverables, Budget

## 3.2 Purpose of the Research

### Purpose of the Research

Immediately communicate the purpose / research question.

### Details and Background

- Are you going to investigate the significance of multiple causes towards some effect?
- Are you going to investigate the importance of multiple possible symptoms of a problem?
- Are you going to investigate multiple possible solutions to a problem?
- Provide background: What is already known about these issues? What does the reader need to understand to appreciate these issues?

## 3.3 Research Design

### Research Design

**Research Design:** *How* will you answer the question?

### Methodology Details

- How the sample will be collected? What is the population?
- What variables / What survey questions?
- What relationships among the variables?
- What control variables?
- What statistical analysis will answer your research question?

## 3.4 Outcomes

### Outcomes

#### What will we learned from the research?

- Be specific
- Not overly optimistic
- Not overly general
- You will be held accountable for what you promise here
- What decisions *can be informed* by your results?

### **Dissemination / Deliverables**

- Paper, report, presentation?
- Who will your audience be?
- When should these be expected?