

# Brightfield Project Examples: Economics

## 1. Market Failure & Government Intervention Case Study

### Introduction:

Students will analyse a real-world example of market failure and evaluate the different forms of government intervention used to address it.

### Field of Economics:

Microeconomics / Public Policy / Welfare Economics

### Required Level of Knowledge:

Basic understanding of supply and demand, externalities, and government regulation. Key theoretical frameworks will be introduced during the project.

### Real-World Example:

The carbon emissions trading schemes (such as the EU Emissions Trading System) are real-world attempts to correct negative externalities caused by industrial pollution through market-based government intervention. What is the most effective way to fix a market failure? Source: [https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets\\_en](https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en)

### What You Would Be Doing:

In this project, you will study the theoretical foundations of market failure (externalities, public goods, asymmetric information), examine how governments design policies to correct inefficiencies, evaluate the costs, benefits, and unintended consequences of interventions, and produce a policy analysis report applying theoretical models to a real-world case.

## 2. Behavioural Economics & Irrational Decision-Making

### Introduction:

Students will explore how individuals deviate from purely rational decision-making, analysing key behavioural biases and their implications for markets and policy design.

### Field of Economics:

Behavioural Economics / Microeconomic Theory

### Required Level of Knowledge:

Basic understanding of standard economic rationality assumptions. Behavioural models will be introduced during the project.

**Real-World Example:**

The UK government's "Nudge Unit" (Behavioural Insights Team) has used behavioural economics to improve public policy, such as increasing tax compliance and organ donation rates. When does human psychology break classical economic theory? Source: <https://www.gov.uk/government/organisations/behavioural-insights-team>

**What You Would Be Doing:**

As a behavioural economics researcher, you will study behavioural models such as loss aversion, present bias, framing, and social preferences, analyse real-world policy applications of behavioural nudges, critically evaluate both the promise and limits of behavioural policy, and write a policy briefing recommending a new behavioural intervention.

### 3. Labour Markets & Wage Inequality Analysis

**Introduction:**

Students will analyse real-world data on wages and employment patterns to explore drivers of inequality across industries, regions, and demographic groups.

**Field of Economics:**

Labour Economics / Applied Microeconomics

**Required Level of Knowledge:**

Basic understanding of wage determination, supply and demand for labour, and human capital theory. Applied data interpretation skills will be developed during the project.

**Real-World Example:**

Debates over the UK's regional wage gaps (e.g. North-South divide) and gender pay gaps have led to active government policy debates on regional investment, wage floors, and skills training. Why do some groups consistently earn more than others? Source: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours>

**What You Would Be Doing:**

In this project, you will analyse real wage data across industries, genders, and regions, study the impact of education, experience, and market power on wages, evaluate policy proposals to reduce inequality, and produce a labour market analysis report with data-supported conclusions.

## 4. Cost-Benefit Analysis of Major Infrastructure Investment

### Introduction:

Students will perform a simplified cost-benefit analysis of a large public infrastructure project, assessing whether the long-term economic benefits justify the investment.

### Field of Economics:

Public Economics / Infrastructure Policy / Applied Microeconomics

### Required Level of Knowledge:

Basic understanding of opportunity cost, discounting, long-run economic growth. Cost-benefit frameworks will be introduced.

### Real-World Example:

The construction of HS2 (High Speed 2) in the UK has generated intense debate about whether the long-run economic benefits (regional development, reduced congestion) outweigh the huge fiscal cost. How should governments evaluate whether major projects are worth it? Source: <https://www.instituteforgovernment.org.uk/explainer/hs2-costs>

### What You Would Be Doing:

In this project, you will study cost-benefit frameworks used in public sector decision-making, review financial, environmental, and social impacts of major projects, conduct sensitivity analysis on key assumptions, and write a project evaluation report recommending whether the investment should proceed.