

## Natural Experiments

### Chapter 1 – Gaining Insights Without Experimentation

What is the difference between natural experiments and classical experiments?

We are not always aware of the consequences of our choices. What is cause, and what is effect? Experiments serve as an important tool to explore this, and to answer fundamental societal questions.

They play a central role in empirical research. The most reliable sources in this context are so-called randomized controlled trials (RCTs).

Test subjects are randomly divided into a treatment group and a control group, data is collected, the results of both groups are compared, and then analysed. An RCT is an experiment for which data is collected exclusively. Natural experiments are different. Here, the data already exists and is not used until in subsequent experiments.

David Card conducts research on issues concerning the labour market using natural experiments. For his empirical contributions to labour market economics, he received the Sveriges Riksbank Prize in Economic Sciences 2021 in memory of Alfred Nobel.

For instance, he asks: What will happen to unemployment when minimum wages are raised? Card compares data from fast food restaurants in two US states. For the treatment group in New Jersey, the minimum wage was raised, however, in Pennsylvania, the control group, it was not.

The employment figures show: A higher minimum wage does not necessarily reduce the number of vacant jobs!

How could one have come to this conclusion without conducting a natural experiment? Classic RCTs are often ruled out in the social sciences. For example, if one wanted to investigate the influence of education, one would have to invest more in the education of the treatment group than the control group. That is not possible for ethical reasons.

David Card has shown that natural experiments can provide key insights into issues of major societal significance.