

## **Operations Research as Cold War Science 1945–1980**

Richard Vahrenkamp, Professor em. for Logistics, University of Kassel

Mail: Vahrenkamp2016@gmx.de

Lecture at Berliner Forschungskolloquium Wirtschafts- und Sozialgeschichte 13 January 2021

### **Abstract**

The lecture shows the rise of the academic field of Operations Research, which provides mathematical models for the control of business enterprises, in the political knowledge culture of Cold War Science in the USA. It then leads to the institutionalization of Operations Research in the faculties of economics of the universities of Western Europe and the Federal Republic of Germany in the period 1960 to 1980. It points out the great flood of publications on the topic of Operations Research in the period 1960 to 1980 and explains and discusses the connection between Operations Research and the macroeconomic field of econometrics in chairs, conferences and publications. Based on the scientific-historical study by Alexander Nützenadel, the difference between the field of econometrics, which is based on empirical data, and the field of Operations Research, which is not empirically but mathematically oriented, is worked out. The methodical procedure of Operations Research is called "abstractification". An example of this abstractification is the famous transport model of linear optimization, which simplifies (abstracts) economic reality to such an extent that it can be transformed into manageable formulas. The lecture shows that due to the strong simplification the transport model was not applied in the real economy (logistics) at all and thus only serves as a self-referential project for academic purposes. The lecture shows that Operations Research lacks a level of empirical implementation of the mathematical models known from econometrics and social sciences. How the transport model and transport optimization were received in the political knowledge cultures of the Eastern Bloc (1945 - 1990) and in the GDR is not discussed. The long German version of the lecture is available as PDF at

[www.vahrenkamp.org/files/Wissenschaftsgeschichte\\_Operations\\_Research\\_Vahrenkamp\\_WP4\\_2019.pdf](http://www.vahrenkamp.org/files/Wissenschaftsgeschichte_Operations_Research_Vahrenkamp_WP4_2019.pdf)

A publication 2019 is available "Nominal Science without Data: The Cold War Content of Game Theory and Operations Research", in: *Real World Economics Review*, vol. 88, 2019, pp. 19–50, as PDF under <http://www.paecon.net/PAEReview/issue88/Vahrenkamp88.pdf>.