

# Lukas Rosenberger

Munich Graduate School of Economics

[www.lukasrosenberger.github.io/academic/](http://www.lukasrosenberger.github.io/academic/)

**Primary Fields:** Economic Growth and Development, Economic History  
**Secondary Fields:** Macroeconomics, Innovation, Education, Political Economy  
**Research Topics:** Technological Progress, Human Capital, Industrial Revolution

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## REFERENCES

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## EDUCATION

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2016 – 2022	Ph.D. Economics	LMU Munich
2014 – 2016	M.Sc. Economics (with distinction)	LMU Munich
2013 – 2014	Studies in M.Sc. Economics	University of Duisburg-Essen
2010 – 2013	B.A. Public Administration	University of Erfurt

## RESEARCH VISITS

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10/2021 – 06/2022	Northwestern University	Host: Joel Mokyr
01/2020 – 05/2020	Brown University	Host: Oded Galor

## JOB MARKET PAPER

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**Invention and Imitation during the Industrial Revolution** (with Carl Hallmann and Emre E. Yavuz, Northwestern)

This paper provides the first empirical cross-country evidence on inventive activity during the Industrial Revolution. Using French patent data from 1791 to 1855, we can compare invention rates in Britain and France across sectors due to idiosyncrasies in the historic patent law. Our key result is a significant, strong, and robust positive association of invention rates in Britain and France. Furthermore, we quantify technological leadership in invention at the sectoral level. The evidence informs a debate on whether invention during the Industrial Revolution mainly was a British or a European affair, which has implications for theories of growth and innovation.

## OTHER WORKING PAPERS

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**Knowledge, Education, and Economic Growth: Evidence from the Enlightenment in France** (with Uwe Sunde, LMU Munich). *Status: Draft forthcoming*

This paper advances and empirically establishes the hypothesis that economic growth depends on the interaction between two dimensions of productive knowledge: knowledge embodied in people (human capital) and codified knowledge (non-rival ideas). France in the Enlightenment provides a unique historical setting that allows disentangling variation in both dimensions of productive knowledge to identify their interaction. The empirical strategy exploits spatial variation in education, which was predetermined for historical reasons, and time variation of Enlightenment, which made codified knowledge widely available. Using novel data on the establishment and curriculum of all public secondary schools in France from 1500 to 1800, we first trace the geography of schools and a scientific curriculum to historical factors going back to the late-Roman period and religious competition during the sixteenth century. Then, we show that cities with scientific education exhibited a greater demand for codified knowledge during the Enlightenment, as measured by subscriptions to the newly available Encyclopedia. Reversely, we also show that the availability of codified knowledge increased the demand for scientific education, as reflected in enrolment in scientific subjects at schools of the revolutionary period. Finally, we document that education was instrumental for adopting codified knowledge as proxied by subsequent economic growth and innovation patents. The evidence is consistent with the view that human capital acquired in schools provided students with a "scientific literacy" necessary to utilize the ideas which spread during the industrial Enlightenment.

## WORK IN PROGRESS

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### **Napoleon's schools: Education and Invention during the Industrial Revolution in France**

Was math and science education relevant for invention during the first Industrial Revolution? This paper uses a quasi-natural experiment in France to estimate the causal effect of higher secondary school education in math and science on invention between 1800 and 1850. In the French Revolution, all public secondary schools in France were closed down and their endowments expropriated. During Napoleon's reign, schools and curriculum were re-instated but with a different geographic allocation. On the regional level, I find a positive education–invention gradient. Regions with high-quality math and science education had substantially higher patenting than regions with little math and science, while regions without math and science had less patenting overall. On the town level, I can estimate the causal effect of gaining or losing math and science education by combining two elements: (i) Instrumenting education as of 1789 based on plausibly exogenous historical determinants and (ii) conditioning on the presence or absence of this education after Napoleon to control for the endogeneity of current education.

**Catching up, forging ahead, or falling behind? Technological gaps during the first Industrial Revolution** (with Carl Hallmann and Emre Enez Yavuz, Northwestern)

**The Emergence of Political Dynasties during Democratization: Evidence from France** (with Guillaume Blanc, Brown)

## PRESENTATIONS

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2021	Northwestern, Econ History Lunch; Warwick CAGE doctoral school "Economic growth and development"; LSE, Graduate Econ History Seminar; Zurich Virtual FRESH Meeting; LMU Munich, Macro and Innovation Seminars
2020	Brown, Growth Lab; Northwestern, Econ History Lunch; LMU Munich, Macro Seminar
2019	DEGIT, Odense; EEA, Manchester; EHES, Paris; VfS, Leipzig; German Historical Institute, Paris; LMU Munich, Macro Seminar
2018	World Economic History Congress, Boston (co-author); Spring Meeting of Young Economists, Palma de Mallorca
2017	ASREC Europe, Bologna; Culture, Diversity, and Economic Development doctoral workshop, Groningen

## TEACHING

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2019, 2020	Macroeconomics (M.Sc.)	Teaching assistant
2018	Intermediate Macroeconomics (B.Sc.)	Teaching assistant
2020, 2021	Seminar <i>Human Capital and Development</i> (B.Sc.)	Co-Organizer
2019, 2020	Seminar <i>Economics of Religion</i> (B.Sc.)	Co-Organizer
2020	Seminar <i>Topics in Regional Economics</i> (B.Sc.)	Supervisor
2019	Seminar <i>Long-run Growth &amp; Comparative Dev.</i> (M.Sc.)	Supervisor
2018	Seminar <i>Demography and Development</i> (M.Sc.)	Supervisor
2018	Seminar <i>Economics of Aging and Longevity</i> (B.Sc.)	Supervisor
2018	Seminar <i>Conflict and Development</i> (B.Sc.)	Supervisor
2017–2021	9 Bachelor and 2 Master theses	(Co-)Supervisor

## SERVICE TO THE PROFESSION

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Referee: *Quarterly Journal of Economics, Journal of Economic Growth*  
Conference Organization: Munich Young Economists Meeting 2019 (co-organizer)

## AWARDS AND GRANTS

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2020	DAAD Short-Term Grant for research stay at Brown (c.5.000€)
2019–2021	Add-on fellowship for interdisciplinary economics, Joachim Herz Stiftung (12.500€)
2016–2019	Full doctoral scholarship, German Research Foundation (GRK 1928)
2016	VAC Award for 3rd best Master's degree, Summer 2016

## WORK EXPERIENCE

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2013 Intern, Federal Statistical Office, Wiesbaden

## TECHNICAL SKILLS

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L<sup>A</sup>T<sub>E</sub>X, QGIS, R, Stata

## RESEARCH LANGUAGES

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German, English, and French

Last updated: November 7, 2021