

Prof. Dr. Astrid Cullmann

Curriculum Vitae

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CONTACT

Technische Universität Berlin

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RESEARCH AND TEACHING INTERESTS

- Applied Microeconometrics, Statistics, Productivity and Performance Measurement,
- Industrial Organization, Regulation, Managerial Economics
- Public Infrastructure Provision, Water and Energy Sector, Public Economics

CURRENT POSITION

- Senior Lecturer (Hochschuldozentin) for Statistics and Econometrics, TU Berlin 2017 – current
- Senior Researcher at DIW Berlin and Leader of a Research Group, DIW Berlin, 2013 – current

EDUCATION

- Habilitation "Empirische Wirtschaftsforschung", TU Berlin, 2022
- Dr. rer. oec in Economics, TU Berlin (summa cum laude), 2009
- Diploma in Economics, FU Berlin, 2006
- University Carlos III, Madrid, Spain, 2003 – 2004
- University Bordeaux III, France, Language Studies, 1997 - 1998

ACADEMIC POSITIONS AND RESEARCH STAYS

- Research Associate, Berlin Economics Research Associates (BERA), 2016 – current
- Research Associate, Department of Firms and Markets, DIW Berlin, 2009 – current
- Selection for the Leibniz Association Mentoring Program, 2011 – 2012
- Copenhagen Business School, Denmark, Short Research Visit, 2009
- ETH Zürich, Short Research Visit (2 Months), 2008
- ETH Zürich, Short Research Visit (1 Month), 2007
- World Bank, Washington DC, Short Research Visit (1 Month), 2007
- DIW DC, Washington DC, Research Visit (3 Months), 2007
- PhD Program, Graduate Center on Economic and Social Research, DIW Berlin, 2006 – 2008

RESEARCH GRANTS AND FUNDED PROJECTS

- DFG Project, Modern state-owned firms' performance: An empirical analysis of productivity, market power and innovation, (218,000 Euro), project leader, 2019-2022
- Leibniz Association (Senate Competition Committee), third party funding to establish an independent research group, (777,000 Euro), project leader, 2013 – 2016
- European Commission, 7th Framework Programme, Collaborative Project GRASP, (336,000 Euro), co-investigator and project coordinator at DIW Berlin, 2009 – 2013
- Federal Network Agency (Bundesnetzagentur): Gutachten zum Investitionsverhalten der Strom- und Gasnetzbetreiber with DIW ECON, co-investigator, 2014
- European Commission, 7th Framework Programme, Project NEWJOBS, Collaborative Project, co-investigator, 2011 - 2014
- Deutsche Telekomstiftung: Innovationsindikator, co-investigator, 2009
- PhD Studies Stipend at DIW Berlin, (ca. 40.000 Euro, 36 months), 2006 – 2009
- Federal Network Agency (Bundesnetzagentur), GERNER IV with SUMICSID, co-investigator, 2008
- DAAD Research Grant to visit the Department of Economics, ETH Zurich, 2007
- European Commission, 6th Framework Programme: Project SESSA, co-investigator, 2005
- German-Economic Council of Economic Advisors: Joint project on German and French electricity distribution, co-investigator, 2004 – 2006

WORK IN PROGRESS

- Payout Policies of State-owned Enterprises, submitted (with N. Wägner and M. Nieswand)
- Ownership and Productivity Differences in Electricity Distribution (with J. Rechlitz and M. Nieswand)
- The Cost of Water Quality - An Empirical Analysis of Nitrate Groundwater Pollution and its Cost Driving Effect on German Drinking Water Utilities, submitted (with G. Sundermann, and N. Wägner)
- Price Impact of Land Market Regulation (with J. Kolbe, A. Werwatz, S. Seifert and S. Hüttel)

TEACHING

Statistics I, Statistics II, Econometrics, Advanced Efficiency and Productivity Analysis, Applied Environmental Econometrics in R, Research Seminar in Econometrics and Statistics, Seminar in Innovation, Productivity and Firm Performance, Online R labor I, Online R Labor II, Competition Theory & Policy, Public Sector Management, Nonparametric and Parametric Benchmarking

SEMINARS AND CONFERENCES

- European Workshop on Efficiency and Productivity Analysis, 2022, Porto
- Tagung des Vereins für Socialpolitik (VfS), Basel, 2022
- Invited Discussant at OECD/EC high-level expert workshop on Public Sector Productivity, 2021
- Invited Research Seminar, University Neuchâtel, 2016
- Invited Research Seminar, ETH Zürich, 2015, 2008
- European Association for Research in Industrial Economics (EARIE), 2015, 2011, 2009, 2008, 2006, 2005
- Tagung des Vereins für Socialpolitik (VfS), 2015, 2007, 2008, 2009

- European Workshop on Efficiency and Productivity Analysis, (EWEPA), 2015, 2011, 2009, 2007
 - North American Productivity Workshop (NAPW), 2014, 2008
 - Invited Research Seminar, Kiel University, 2011
 - European Economic Association, 2007, 2005
 - International Association of Energy Economics (IAEE), 2006
 - Halle Efficiency and Productivity Analysis Workshop (HEPAW), 2006
 - Hellenic Workshop on Efficiency and Productivity Measurement (HEWPEM), 2005
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PHD SUPERVISION AND THESIS COMMITTEE

- Julia Rechlitz, TU Berlin and DIW Berlin 2016 - current
 - Greta Sundermann, TU Berlin 2018 – current
 - Raphael Piendl, TU Berlin, 2022
 - Nicole Wägner, TU Berlin and DIW Berlin 2022
 - Imran Qaiser, FU Berlin 2020
 - Lars Sorge, TU Berlin 2020
 - Caroline Stiel, TU Berlin and DIW Berlin 2018
 - Stefan Seifert, TU Berlin, 2016
 - Xiaomei Cheng, Norwegian School of Economics (NHH), 2015
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SERVICE TO PROFESSION

- **Project Reviewer** for German Research Foundation (DFG), for British Academy/ Leverhulme
 - **Journal Reviewer for** Annals of Regional Science, Economics of Energy & Environmental Policy, Empirical Economics, Energy Economics, Energy Journal, Energy Policy, Energy Sources Part B, European Journal of Operational Research, European Journal of Political Economy, International Journal of Industrial Organization, Journal of Comparative Economics, Journal of Economics, Journal of Productivity Analysis, Papers in Regional Science, Research in Transportation Business & Management, Small Business Economics, Transport Policy, Public Transport, Transport Economics and Policy, Utilities Policy
 - **Organizer of the** International PhD Autumn School, Research in Infrastructure Economics, TU Berlin and DIW and International KOMIED Project Workshop
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OTHER SKILLS

- Languages: German (native), fluent in oral and written English, French, Spanish
 - Computer: Econometric and Statistical Analysis with R, STATA and LIMDEP
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PUBLICATIONS

Refereed Journals

- Cost and Productivity Effects of Demographic Changes on Local Water Service, *Utilities Policy*, 2022, 79 (with C. Stiel)

- The effect of restructuring electricity distribution systems on firms' persistent and transient efficiency: The case of Germany, *The Energy Journal*, 2021, Vol 42, No. 4, (with O. Badunenko, S. Kumbhakar and M. Nieswand)
- Finding the Right Yardstick: Regulation under Heterogeneous Environments, *European Journal of Operational Research*, 2018, Vol. 265, No. 2, pp. 710-722 (with E. Björndal, M. Björndal and M. Nieswand)
- Do Private Utilities Outperform Local Government-Owned Utilities? Evidence from German Retail Electricity, *German Economic Review*, 2017, (with M. Nieswand, and C. Stiel)
- Regulation and Investment Incentives in Electricity Distribution: An Empirical Assessment, *Energy Economics*, 2016, Vol. 57, pp. 192-203, (with M. Nieswand)
- Technical Efficiency and CO₂ Reduction Potentials – An Analysis of the German Electricity Generating Sector, *Energy Economics*, 2016, Vol. 65, pp. 9-19, (with S. Seifert and C. v. Hirschhausen)
- R&D Efficiency and Heterogeneity – A Latent Class Application for the OECD, *Applied Economics*, 2014, Vol. 46, pp. 3750-3762, (with P. Złociński)
- R&D Efficiency and Barriers to Entry – A Two Stage Semi-Parametric DEA Approach, *Oxford Economic Papers*, 2012, Vol. 64, No. 1, pp. 176-196, (with J. Schmidt-Ehmcke and P. Złociński)
- Benchmarking and Firm Heterogeneity: A Latent Class Analysis for German Electricity Distribution Companies, *Empirical Economics*, 2012, Vol. 42, No. 1, pp. 147-169
- Unobserved Heterogeneity and Efficiency Measurement in Public Transport, *Journal of Transport Economics and Policy*, 2012, Vol. 46, No. 1, pp. 51-66, (with M. Farsi and M. Filippini)
- The Globalization of Steam Coal Markets and the Role of Logistics: An Empirical Analysis, *Energy Economics*, 2012 Vol. 34, No. 1, pp. 105-116, (with A. Zaklan, A. Neumann and C. v. Hirschhausen)
- Regional Differences of Production and Efficiency of Mexican Manufacturing: An Application of Nested and Stochastic Frontier Panel Models, *Journal of Developing Areas*, 2012, Vol. 45, pp. 291-311, (with F. Braun)
- Nonparametric Efficiency Analysis of German Public Transport Companies, *Transportation Research Part E*, 2010, Vol. 46, No. 3, pp. 436-445, (with C. v. Hirschhausen)
- Overcoming Data Limitations in Nonparametric Benchmarking: Applying PCA-DEA to Natural Gas Transmission, *Review of Network Economics*, 2010, Vol. 9, No. 2, (with M. Nieswand and A. Neumann)
- Quo Vadis Efficiency Analysis of Water Distribution? A Comparative Literature Review, *Utilities Policy*, 2009, Vol. 17, No. 3-4, pp. 225-232, (with M. Walter, C. v. Hirschhausen and M. Zschille)
- Efficiency Analysis of East European Electricity Distribution in Transition – Legacy of the Past? *The Journal of Productivity Analysis*, 2008, Vol. 29, No. 2, pp. 155-167, (with C. v. Hirschhausen)
- From Transition to Competition – Dynamic Efficiency Analysis of Polish Electricity Distribution Companies, *Economics of Transition*, 2008 Vol. 16, No. 2, pp. 335-357, (with C. v. Hirschhausen)
- Efficiency Analysis of East and West German Electricity Distribution Companies - Do the 'Ossis' really beat the 'Wessis'? *Utilities Policy*, 2007, Vol. 15, No. 3, pp. 206-214, (with B. Hess)
- Analysis of German Electricity Distribution Utilities – Non-Parametric and a Parametric Test, *Applied Economics*, Vol. 38, 2006, No. 21, pp. 2553-2566, (with C. v. Hirschhausen and A. Kappeler)

Outreach and Policy Work

- Water Resources in Germany: Increasingly Polluted and Regionally Overused, DIW Weekly Report 49/50 / 2022 (with G. Sundermann, N. Wägner, C.v. Hirschhausen and C. Kemfert)

- Wertvolle Ressource Wasser auch in Deutschland zunehmend belastet und regional übermäßig genutzt, DIW Wochenbericht 49 / 2022, (with G. Sundermann, N. Wägner, C.v. Hirschhausen and C. Kemfert)
- Nitrate pollution of groundwater long exceeding trigger value; fertilization practices require more transparency and oversight. DIW Weekly Report No. 8+9 / 2020 (with G. Sundermann, N. Wägner, C.v. Hirschhausen and C. Kemfert)
- Nitratbelastung im Grundwasser überschreitet Grenzwert seit Langem – mehr Transparenz und Kontrolle in der Düngepraxis notwendig. DIW Wochenbericht 9 / 2020, (with G. Sundermann, N. Wägner, C.v. Hirschhausen and C. Kemfert)
- Innovationen im Energiebereich: Unternehmen forschen wenig selbst, investieren aber verstärkt in Klimaschutz und Digitalisierung. DIW Wochenbericht 33 / 2019, (with C. Stiel C. Kemfert, A. Kritikos, J. Niehues, J. Rechlitz)
- Germany. In: Porcher S., Saussier S. (eds) Facing the Challenges of Water Governance. Palgrave Studies in Water Governance: Policy and Practice. Palgrave Macmillan, Cham., 2019 (with J. Rechlitz and C. Stiel)
- Trend zur (Re-)Kommunalisierung in der Energieversorgung: ein Mythos? DIW Wochenbericht 20 / 2016, pp. 441-457, 2016, (with M. Nieswand, S. Seifert and C. Stiel)
- Keine Effizienzunterschiede zwischen öffentlichen und privaten Energieversorgungsunternehmen, DIW Wochenbericht 20 / 2016, pp. 448-453, 2016, (with M. Nieswand, S. Seifert and C. Stiel)
- Kein Rückgang der Investitionen in der kommunalen Energie- und Wasserversorgung, DIW Wochenbericht 43/2015, pp. 1041-1047, 2015, (with M. Nieswand and C. Stiel)
- Keine Investitionshemmnisse in Elektrizitäts- und Gasverteilnetzen durch Anreizregulierung. DIW Wochenbericht 6/2015, pp. 98-104, 2015, (with N. Dehnen, M. Nieswand and F. Pavel) Regulierung und Investitionen in der leitungsgebundenen Energieversorgung. DIW Roundup 54, 2015, (with M. Nieswand)
- Gutachten zum Investitionsverhalten der Strom- und Gasnetzbetreiber im Rahmen des Evaluierungsberichts nach §33 Abs. 1 ARegV: Endbericht; Projekt im Auftrag der Bundesnetzagentur. DIW Berlin – Politikberatung kompakt 92, 2014, (F. Pavel, Y. Girard, M. Nieswand, and N. Dehnen)
- Growth and Sustainability Policies for Europe (GRASP), Collaborative Project, 7th Framework Programme. Final Report (Chapter II), for EU Commission, 2013, (with D. Gloecker)
- Fallende Preise in der Wasserwirtschaft: Hessen auf dem Vormarsch. DIW Wochenbericht 10/2009, 2009 (with C. v. Hirschhausen, M. Walter and M. Zschille)
- Wie effizient werden die Forschungsausgaben im internationalen Vergleich eingesetzt? DIW Wochenbericht, 44/2009, 2009 (with J. Schmidt-Ehmcke and P. Zloczysti)
- Innovationsindikator 2009: Deutschland hat Aufholbedarf. DIW Wochenbericht 44/2009, 2009 (with H. Belitz, M. Clemens, J. Schmidt-Ehmcke, C. v. Hirschhausen, D. Triebel and P. Zloczysti)
- Innovationsindikator Deutschland 2009: Forschungsprojekt im Auftrag der Deutschen Telekom Stiftung und des Bundesverbandes der Deutschen Industrie. DIW Berlin: Politikberatung kompakt 51/2009, 2009, (with H. Belitz, M. Clemens, J. Schmidt-Ehmcke, C. v. Hirschhausen, D. Triebel, J. Herold, A. Kemnitz, R. Ketzler, D. Schäfer, C. Spiess, V. Steiner and P. Zloczysti)
- Ermittlung möglicher Fusionseffekte im ÖPNV – Eine Effizienzanalyse für Nordrhein-Westfalen. Internationales Verkehrswesen 12/2008, 2008, (with C. v. Hirschhausen and M. Walter)
- Größenvorteile bei Busunternehmen des ÖPNV in Deutschland - Eine vergleichende Effizienzanalyse. Internationales Verkehrswesen 06/2008, 2008, (with B. Hess, C. v. Hirschhausen and M. Nieswand)