

# Arkādijs Zvaigzne

DOCTORAL CANDIDATE, HARVARD UNIVERSITY

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## RESEARCH INTERESTS

Higher Education, Inequality, Workforce Development

## EDUCATION

**Harvard University**, Cambridge, MA

*Ph.D. in Education*, Education Policy and Program Evaluation

*2020 - 2026 (expected)*

Advisor: Peter Q. Blair

Training in quantitative and qualitative policy and program evaluation. Courses in econometrics, microeconomic theory, machine learning, and big data analysis.

**University of Pennsylvania**, Philadelphia, PA

*Master of Science in Education*, Higher Education

*2019 - 2020*

Training in quantitative analysis and international higher education. Courses in network analysis and quasi-experimental design.

**RTU Riga Business School**, Riga, Latvia

*Master of Business Administration*, Finance Specialization  
management, accounting, financial investing, and statistics.

*2016 - 2019* Training in

**Riga Stradins University**, Riga, Latvia

*Bachelor's Degree*, European Economics and Business

*2013 - 2016*

Training in statistics, microeconomic theory, economic research methodology, macroeconomics, and European Union law

## CURRENT PROJECTS

### Dynamics of Financial Aid Tournaments

*Job Market Paper*

Financial aid programs in higher education vary widely in design, including how aid is structured and the timing of provision. This paper studies the impact of financial aid provided as a repeated tournament and its dynamic treatment effects. I exploit a relative GPA-based eligibility rule in a regression discontinuity design to estimate the causal impacts of two types of aid - a tuition waiver and a stipend on top. Waivers have powerful effects on student persistence, increasing graduation rates by 12pp, and GPA by  $0.4\sigma$ . Stipends affect student effort by increasing student GPA in the next semester by  $0.3\sigma$  and persistence by increasing graduation rates by 8.8pp. I find a powerful crowding-in effect, where receiving aid in one semester significantly increases the probability of receiving it in the future. Decomposing the impact reveals that a substantial portion of the total long-term benefit of aid comes from the crowding-in of future resources, suggesting that static analyses may underestimate the full value of financial aid programs.

### Race Between Brain Drain and Brain Gain

*Work In Progress*

A key determinant of investment in human capital is the expected returns to such investment. The removal of barriers to the free movement of labor permits individuals to access a broader range of labor markets, increasing their expected returns to human capital. However, as the opportunities for free movement of individuals have increased, so has the risk of brain drain. Using individual and national-level data from Latvia, I estimate the impact of joining the EU on the quality and stock of human capital in Latvia. What I find is that joining the EU has had a positive impact on both the quality and stock of human capital in Latvia. The process of joining the EU increased tertiary enrolment by 22.9 percentage points, and access to the free movement of labor within the EU increased tertiary attainment by 9.6pp after 10 years. Furthermore, the process of joining the EU had no statistically significant impact on net migration rates, and a positive impact on the total number of individuals with tertiary education.

### The Returns to High School Graduation and College Access

*Work In Progress*

This paper evaluates the impact of acquiring a high school diploma for individuals who suc-

cessfully pass the high school exit exam in Latvia. The especially low threshold for passing the high school exit exam sets the threshold at the 4th percentile of all high school students. This allows me to contribute new estimates to the returns to acquiring a secondary education and the opportunities for additional schooling in an effectively open enrolment system for exceptionally marginal students. What I find is that marginally passing the high school exit exam increases the probability of enrolment into 2-year institutions, but with no impact on graduation rates.

**Dynamic Treatment Effects of HAIL** with S. Dynarski, E. Burland, and J. Hayes *Work In Progress*

**Returns to Federally Funded Job Training** with J. Hayes

*Work in Progress*

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## RESEARCH EXPERIENCE

### **The Project on Workforce at Harvard**

*Doctoral Researcher*

*2021 - Ongoing*

Conducting data analysis using administrative data on workforce training and preparation programs and their participants. Writing a report detailing and analyzing public jobs training in the US. Working on analyzing the match of college degree growth to changes in the labor market.

### **Harvard University**

*Researcher, BE-Lab*

*2020 - Ongoing*

### **University of Pennsylvania**

*Research Assistant, Institute for Research on Higher Education*

*2019 - 2020*

Researching the performance of Californian higher education, using federal- and state-level education data sets to review the performance of the system and institutions.

## AFFILIATIONS

### **Minda de Gunzburg Center for European Studies, Harvard University**

*Graduate Student Affiliate*

### **Institute for Quantitative Social Science, Harvard University**

*Graduate Student Affiliate*

### **Davis Center for Russian and Eurasian Studies, Harvard University**

*Graduate Student Associate*

## PROFESSIONAL EXPERIENCE

### **Ministry of Education and Science of the Republic of Latvia**

*Senior Expert*

*2021, 2022 - 2025*

Conducting analysis of educational and labor market outcome data for postsecondary education. Drafting and validating with stakeholders a conceptual report on the reformation of Latvia's higher education funding system.

### **RTU Riga Business School Education Innovation Lab**

*Research Director*

*2022 - Ongoing*

Supporting evidence-based educational development and conducting process and impact evaluations of programs designed for supporting innovation development and training digital skills.

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## REPORTS

### **Navigating Public Job Training**

*with David Deming, Alexis Gable, and Rachel Lipson*

*2023*

### **Report on Estonian and Nordic Experience in Implementing Free Higher Education**

*with Sandis Kārkliņš, funded by the Latvian Parliament*

*2020*

PRESENTATIONS AND POSTERS	<b>University of California Summer School on the Economics of Migration</b> <i>The Race Between Brain Drain and Brain Gain</i>	2025
	<b>World Latvian Economics and Innovations Forum</b> <i>Overview of Human Capital in Latvia</i>	2025
	<b>Stockholm School of Economics in Riga Open Workshop</b> <i>The Impact of the Removal of Barriers to Labor Mobility on Investment in Human Capital</i>	2024
	<i>The Effectiveness of Tuition Waivers and Further Stipends to Students</i>	2023
	<b>Association for Public Policy Analysis and Management Fall Conference</b> <i>Returns to Federally Funded Job Training, with Julian Hayes</i>	2023
	<b>Association for Education Finance and Policy Annual Conference</b> <i>Returns to Federally Funded Job Training, with Julian Hayes</i>	2023
	<i>Waiving Tuition vs Providing Direct Aid to Students During Their Studies</i>	2023
AWARDS & ACHIEVEMENTS	<b>Jens Aubrey Wenstegard Scholarship</b> Harvard University, Jens Aubrey Westengard Fund for Study in Europe, Britain, or South America	2025
	<b>Frederick Sheldon Travel Fellowship</b> Harvard University, Frederick Sheldon Travel Fellowship to research College Access and Its Labor Market and Civic Consequences for Low-Achieving High-School Graduates in Latvia.	2024
	<b>Merit Scholarship</b> University of Pennsylvania	2019
SKILLS	<b>Programming Languages:</b> R, L <sup>A</sup> T <sub>E</sub> X <b>Statistical and Data Analysis Software:</b> Stata, PowerBI, Tableau, Shiny <b>Languages:</b> Latvian, English, Russian	