

DEPARTMENT OF ECONOMICS
University of Massachusetts at Amherst
Thompson Hall
Amherst, MA 01003
Email: marina@econs.umass.edu

11205 Pear Tree Way
Apt. L
Columbia, MD 21044
Phone: (202) 448-8912
Email: msvornovytsky@loyola.edu

General Research Interests

- Resource and Environmental economics, Ecological Economics
- Political Economy
- Game theory and Microeconomics
- Economic Geography

Education

PH.D., ECONOMICS, (DEFENSE DATE: NOVEMBER 26, 2008) January 2009
UNIVERSITY OF MASSACHUSETTS AT AMHERST
(CORE FIELDS: MICROECONOMICS, ECONOMIC DEVELOPMENT)

B.A., ECONOMICS, *magna cum laude*, May 2002
AMERICAN UNIVERSITY

Dissertation

Title: *Relationship between Inequality and Environmental Degradation: An Inter-Regional Perspective*

- A theoretical and empirical critique of the income-centered approach to addressing environmental issues
- Empirical analysis of the relationship between pollution shifting and environmental degradation at the regional level
- Empirical analysis of the relationship between horizontal inequalities and regional environmental degradation in the Russian Federation

Working Papers

- Horizontal (between-group) inequalities and environmental degradation: understanding the political economy of pollution shifting (Job Market paper)
- Income distribution and the environment: reassessing evidence for the Environmental Kuznets Curve
- A New Perspective on Inter-regional Inequalities in Russia
- Conflict and Institutional Change - The Soviet Union's New Economic Policy (NEP) of the 1920s

Research Interests

- Political economy of natural resource use with a focus on the relationship between social and institutional factors and environmental degradation
- Horizontal inequality measurements and their use in analysis of implications of horizontal inequalities from economic and environmental justice perspectives
- Economics of social conflicts in the developing world with a focus on the role of natural resource abundance and horizontal inequalities
- Game-theory-based modeling of social conflicts with a focus on the role of group identity in those conflicts

Honors and Awards

- Loyola College in Maryland: Chair's Award for Distinguished Affiliate Faculty Teaching (2008)
- International Golden Key Honor Society

Teaching Experience

January 2007 - present, Loyola College in Maryland, Instructor

- *Quantitative and Statistical Decision Making (graduate)* - Summer and Fall 2007; average score on teaching evaluations - 3.79 (out of 4)
- *Business Statistics (undergraduate)* - Spring 2007 - present; average score on teaching evaluations - 3.47 (out of 4)

September 2006 - August 2007, College of Notre Dame of Maryland, Instructor

- *Economic Theory in Management (graduate)* - Fall 2006 and Spring 2007
- *Data Analysis for Business Decision-Making (undergraduate and accelerated)* - Spring and Summer 2007

January - May 2005, University of Bridgeport (Bridgeport, CT), Instructor

- *Economic Analysis (graduate)* - Spring 2005

September 2002 - December 2004, University of Massachusetts at Amherst, Teaching Assistant

- *Introduction to Microeconomics (undergraduate)* - Fall 2002 - Fall 2003, Fall 2004
- *Intermediate Microeconomics (undergraduate)* - Spring and Fall 2003

Conferences and Seminar Presentations

- *Linkages between Inequality and Environmental Degradation* - Conference of the United States Society for Ecological Economics, New York, June 2007

References

James K. Boyce
Department of Economics and Political Economy Research Institute (PERI)
University of Massachusetts, Amherst
(413) 545-0915
boyce@econs.umass.edu

Michael Ash
Department of Economics and Political Economy Research Institute (PERI)
University of Massachusetts, Amherst
(413) 545-6329
mash@econs.umass.edu

John Willoughby
Department of Economics
American University, Washington D.C.
(202) 885-3759
jwillou@american.edu

Dissertation Summary

The title of my dissertation is “Linkages between Income Inequality and Environmental Degradation: An Inter-regional Perspective”. The goal was to contribute to the literature that seeks to move beyond income-centered approaches to environmental degradation by examining the socio-economic factors that influence environmental quality. This was accomplished by focusing, in particular, on two questions: 1) Do income and power inequalities matter for environmental quality? 2) What role does pollution shifting play in the relationship between economic development and environment?

The first chapter, titled “Income Distribution and the Environment: Reassessing Evidence for the Environmental Kuznets Curve”, utilizes the Russian Statistical Agency’s data on air pollution and deforestation in Russia to answer the question of what relationship, if any, exists between the income, income and power inequalities and environmental degradation. The major finding here is that, holding income constant, greater inequalities in income and provision of public goods are associated with a greater level of environmental degradation. It was also found that average income and expenditures on air protection per unit of Gross Regional Product have an inverted U-shaped relationship, which runs counter to what one might expect under the Environmental Kuznets Curve hypothesis. The turning point for this relationship is consistently found below the turning point for uncontrolled pollution, suggesting that expenditures on air pollution control per unit of GRP begin to decrease before uncontrolled pollution reaches a turning point.

Given the findings presented in the first chapter, it appeared warranted to further investigate the relationship between inequality and environmental quality by focusing, in particular, on how inequalities *between* regions of the Russian Federation contribute to environmental degradation at the regional level. For this reason, the second chapter, “A New Perspective on Inter-Regional Inequalities in Russia”, was dedicated to the empirical analysis of inter-regional inequalities in Russia in the post-Soviet period. The analysis found that economic differences among Russia’s regions are substantial, and that their presences cannot be ascribed to the temporary restructuring of the economy. Differences in the provision of public goods are also significant, and increasing.

The third chapter, “Horizontal (between-group) Inequalities and Environmental Degradation: Understanding the Political Economy of Pollution Shifting”, is my job market paper. By developing two methods for distinguishing between changes in the absolute level of income and changes in the relative level of income and controlling for the former, it was found that regions with lower *relative* incomes have more uncontrolled pollution and more net deforestation than regions whose incomes are high in *relative* terms. Moreover, these differences cannot be attributed to differences in spending. However, no evidence exists in support of the claim that the relationship between the the absolute level of income and environmental quality depends on the region’s relative status.