

NR 385
ECOLOGICAL ECONOMICS IN PRACTICE:
INDICATORS FOR SUSTAINABILITY

Wednesdays, 9:00 a.m. – 12:00 p.m.

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COURSE DESCRIPTION

The shortcomings of gross domestic product (GDP) as an economic policy guide and measure of sustainable economic welfare have long been recognized by a substantial body of scholarship. Research on alternative macroeconomic measures is extensive, including development of the Genuine Progress Indicator (GPI) as a comprehensive adjustment to national and state income accounts with twenty-five economic, social, and environmental indicators. The GPI has been tested and refined in countries across the world, and currently there is a movement amongst state governments and NGOs to develop, adopt, and utilize GPI accounts to guide policy. The first state-level GPI accounts were produced by a Gund Institute class for Vermont in 2004, which laid the groundwork for other GPI state studies, most notably for Maryland. In 2012, the State of Vermont passed a law directing the Gund Institute to develop official accounts, and the Gund is now working with a growing network of state agencies, academics, and NGOs developing GPI accounts.

This course is designed to put ecological economics into practice by contributing to the ongoing development of GPI. Students will review the historical development, current critique, and proposed advances of GPI. The class will "learn by doing" through building on recent work in Vermont and Maryland to estimate the first 50-state GPI table, contribute to methodological improvements in an emerging "GPI 2.0", and outline policy applications of state-level GPI studies. Results will lay the groundwork for a GPI practioners workshop at the Gund Institute.

OBJECTIVES

1. Develop an interdisciplinary critique of economic development metrics and policy.
2. Connect the history, critique, and advance of macroeconomic indicators to sustainability.
3. Apply full-cost methods to macroeconomic income accounting to analysis of economic development.
4. Research, write, and present analysis of the methods and application of economic indicators of sustainability.

5. Develop peer mentoring relationships and connections to the Gund Institute learning community.

ORGANIZATION and EVALUATION

The class is organized as a graduate research seminar, with weekly readings and discussion, group and individual presentations, and work on a significant research project. Students will be evaluated based on their participation in class discussion (20%), project milestones (20%), and contribution to the final writing project and presentation (60%). The gold standard for the final project is an analysis suitable for publication in a peer-reviewed journal.

CERTIFICATE of GRADUATE STUDY in ECOLOGICAL ECONOMICS

This course serves as an Ecological Economics Practice (or "atelier") requirement for the [Certificate of Graduate Study in Ecological Economics](#). The EE Certificate is a 15-credit program, including 3 core classes and 2 electives. The core includes classes in Ecological Economic Theory, Methods, and Practice. Candidates for the EE Certificate also have to demonstrate graduate-level experience across four competencies in natural sciences, social sciences, management, and quantitative methods. This can be done with courses (usually at least the 2 electives are used), but also previous graduate classes and life experience. Note that the Graduate College will only allow 6 credits to be transferred into the 15-credit program (including earned or currently enrolled UVM credits). Admission into the EE Certificate program is separate from admission into an MS or PhD program at UVM, requiring an additional (short) application.

READINGS

Readings will evolve as the course progresses. Students will be expected to identify articles and lead discussions. Readings will be made available as PDFs on a course web site, and initially will include:

Bagstad, K., Berik, G. and E. Gaddis, "Methodological Developments in U.S. State-Level Genuine Progress Indicators: Towards GPI 2.0," Draft Manuscript, 2013 [available on Blackboard; not for citation].

Constanza, R., Erickson, J.D., Fligger, K., Adams, A., Adams, C., Altschuler, B., Balter, S., Fisher, B., Hike, J., Kelly, J., Kerr, T., McCauley, M., Montone, K., Rauch, M., Schmiedeskamp, K., Saxton, D., Sparacino, L., Tusinski, W. and L. Williams, "[Estimates of the Genuine Progress Indicator \(GPI\) for Vermont, Chittenden County, and Burlington, from 1950 to 2000](#)," *Ecological Economics* 51: 139-155, 2004.

Daly, H. and J. Cobb, [For the Common Good](#), Beacon Press, Boston, MA, 1994.

Erickson, J.D., Zencey, E., Burke, M., Carlson, S. and Z. Zimmerman, "[Vermont Genuine Progress Indicator, 1960-2011, Findings and Recommendations](#)," Presented to the Joint

Legislative Committee on Government Accountability, Statehouse, Montpelier, VT, July 30, 2013.

Lawn, P.A., "[An Assessment of the Valuation Methods used to Calculate the Index of Sustainable Economic Welfare \(ISEW\), Genuine Progress Indicator \(GPI\), and Sustainable Net Benefit Index \(SNBI\)](#)," Environment, Development and Sustainability, 7(2), 185-208, 2005.

Talberth, J., C. Cobb, and N. Slattery, [The Genuine Progress Indicator 2006](#), Redefining Progress, Oakland, CA, 2007.

ACADEMIC INTEGRITY

Any breach of the Code of Academic Integrity will be considered grounds for failure in the course. See: <http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf>.

Collaboration on homework and course projects is required; however everyone is expected to be an equal partner. Copying or free-riding on the sweat of others will be considered grounds for individually failing assignments and/or the class.

COURSE OUTLINE AND MILESTONES

Date	Topics	Readings	Project Milestones
Introduction to Measuring Economic Success			
1/15	Course Overview, Objectives, Outline Measuring Economic Success Vermont Genuine Progress Indicator	Daly & Cobb, 1994, Ch. 3 Daly & Cobb, Appendix Erickson et al., 2013 Vermont Act 113	
1/22	GPI Development, Critique, and Advances Discussion Lead: Ken Bagstad	Lawn, 2005 Talberth et al., 2007 Bagstad et al., 2013	
1/29	Review of State GPI Studies VT/MD/MA GPI Estimates and Methods VT Technical Review	Costanza et al. 2004 Selected state studies Zencey et al, 2014	State Assignments
Policy and Planning for Genuine Economic Progress			
2/5	State Applications Discussion Lead: Marta Ceroni	Student Assigned	
2/12	National Applications Discussion Lead: John Talbreth	Student Assigned	
2/19	International Applications Discussion Lead: Daniel Clarke	Student Assigned	
2/26	Project Check-In – Progress and Problems		Draft State GPI Tables
3/5	NO CLASS (Spring Break)		
Data Assembly, Analysis, and Synthesis			
3/12	TBD		
3/19	TBD		
3/26	TBD		State Comparisons
4/2	TBD		
4/9	TBD		Policy Briefs
4/16	TBD		
All Day 4/22 & 4/23	GPI Workshop		Methods Review
4/30	Synthesis and Preparation		
5/5 1:30 - 4:15	Final Presentations – State Comparison, Policy Applications, GPI 2.0		