

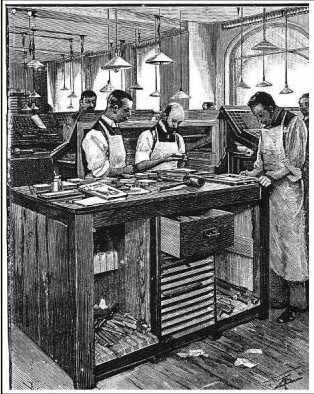
ALUMNI NEWS

DEPARTMENT OF ECONOMICS

INDIANA UNIVERSITY OF PENNSYLVANIA ☞ INDIANA, PA 15705-1087

Issue 59, Spring 2016

ECONOMIC GROWTH AND FATAL CRIMES COMMITTED AGAINST ENVIRONMENTAL AND LAND ACTIVISTS BY DR. CHRIS R. JEFFORDS



In 2002, the renowned hip hop artist, Nelly, famously exclaimed and somewhat predicted that “it’s getting hot in herre”. While he likely wasn’t spreading a message associated with global warming, the fact that Earth is getting warmer has been independently verified by the National Aeronautics and Space Administration (NASA) and others scientists and agencies. For example, NASA’s Goddard Institute for Space Studies publishes the Global Land–Ocean Temperature Index which tracks deviations in global surface temperatures by comparing the annual mean temperature to the average temperature over the base period of 1951–1980 (NASA website, 2016). Going as far back as 1880, this index shows that 9 of the 10 warmest years on record have occurred since 2000, and 2015 was the warmest year on record. Nelly was on to something.

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Editor:

Dr. Nicholas Karatjas

As global warming persists and the global carbon dioxide concentration grows beyond highs not seen in 800,000 years (Scripps Institution of Oceanography website, 2016), the Intergovernmental Panel on Climate Change (IPCC) notes that human security and violent conflict are growing concerns in the face of global climate change (Tol, 2015). This concern is echoed by the environmental organization, Global Witness (GW), which recently issued a report documenting the murders of 908 people across 35 countries between 2002 and 2013 for “protecting rights to their land and environment”. As noted in the report, these

crimes are typically directed at members of indigenous and landless groups as well as peasant movements due to disputes over pollution, deforestation, illegal logging, and wildlife conservation. Going further, Adger et al. (2014, page 758) discuss how low per capita incomes, recessions, and poor state institutions are “sensitive to climate change and variability” and are associated with an increased incidence of violence and armed conflict. Furthermore, Nordås and Gleditsch (2007) note that temperature variability and imperfect access to water sources, for example, can lead to within and between country conflicts, violence, and war. In related research, Zimmerer (2014) argues that environmental violence within the context of climate change will lead to increased instances of genocide in areas at greatest risk for genocide. To the extent that global warming and climate change are, in some way, linked to violence and, in particular, violence against environmental and land activists, it is



Dr. Chris Jeffords

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ECONOMIC GROWTH AND FATAL CRIMES (CONT.)

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important to carefully consider the avenues through which the two are linked. One such avenue is economic growth.

Economic growth has been linked to environmental harm in various different contexts, so much so that the relationship has a name: Environmental Kuznets Curve (EKC). The EKC posits an inverted U-shaped relationship between economic growth (e.g., increasing income per capita) and environmental pollution (e.g., carbon dioxide emissions) where pollution tends to increase with growth but at a certain level of income further economic growth is associated with reductions in pollution. The list of factors contributing to this turning point include the shift to service industries (Grossman and Krueger, 1991), increased demand for environmental amenities (Antle and Heidebrink, 1995), increasingly stringent regulation (Grossman and Krueger, 1995), political institutions (Bhattarai and Hammig, 2001), and the presence of environmental protections in national constitutions (Jeffords and Minkler, 2016). Given the extent to which economic growth has been directly linked to traditional forms of environmental harm, Dr. Alexi Thompson and I were interested in how economic growth was linked to a less traditionally considered form of environmental harm: fatal crimes perpetrated against environmental and land activists. Considering the above discussion and points gleaned from the IPCC report implying that physical security in the context of environmental issues could be an environmental amenity that is increasingly in demand as incomes grow, we asked the following question: In the context of the EKC, is there a similar nonlinear relationship between economic growth and fatal crimes against environmental and land activists?

The answer is a cautious “yes” with many caveats which warrant discussion prior to a preview of the results. First, the data is sparse in the sense that there are many missing data points across the countries and years. Out of the 35 countries, 81% of reported environmental murders occur in six countries: Brazil, Honduras, Mexico, Peru, Philippines, and Thailand. As a result of this concentration compared to the remaining 28 countries (it is not 29 because Argentina was dropped for missing data), we implemented two different frameworks: one where we grouped the remaining 28 countries into an “all other countries” category and a second where we only considered the six countries discussed above. Second, the empirical results are based on small samples ranging from 55–71 observations across 20 different specifications. Third, the results are sensitive to the inclusion/exclusion of Brazil which had 448 reported environmental murders out of the 908 reported for all 35 countries. Fourth, the results do not generalize to countries and situations outside of the sample. In other words, all of the results and policy implications apply solely to this group of data and cannot, without reservation, be applied to countries and scenarios outside of this sample. Fifth, the topic and results are contentious and any policy implications stemming from such an empirical analysis are likely best applied in theory and not practice, at least not without carefully considering various other modes of qualitative and quantitative analyses and results. Now that most of the caveats are out of the way, the following is a (very) short discussion of the results.

Using data from the GW report, we created country-level panel data models (i.e., econometric models that track a group of countries for a period of time) to estimate the effects of economic growth on fatal crimes against environmental activists. Our measure of fatal crimes against environmental and land activists is the number of murders in a given country in a given year as a percent of total environmental murders in that year. To account for economic growth, we include a linear and squared term of national income per capita measured in purchasing-power-parity adjusted constant 2011 dollars. Our various empirical specifications also control for deforestation, the perceived rule of law and control of corruption, the homicide rate exclusive of environmental homicides, and a measure of natural resource rents as a percent of gross domestic product.

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A NOTE FROM ROBERT TOUTKOUSHIAN

Editor's Note: I received the following email from Dr. Robert K. Toutkoushian ('84). Rob is a Professor at the Institute of Higher Education at the University of Georgia. He is also editor of "Research in Higher Education." It is very gratifying to read comments about the impact of our work. We always hope that our enthusiasm for economics gets across to our students.

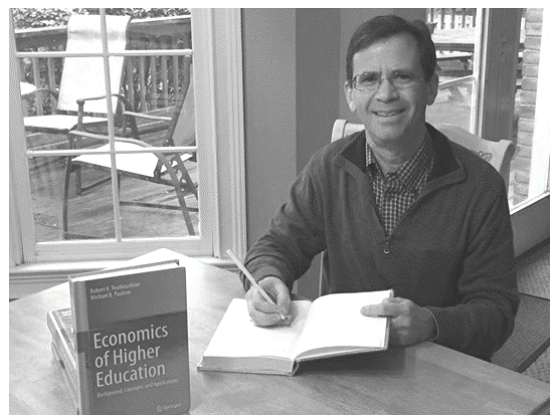
Rob writes, "I am writing to let you know that the book that I have been writing for the past couple years is finally finished. It is titled *Economics of Higher Education: Background, Concepts and Applications* and is mainly targeted towards graduate students in higher education who aren't very familiar with economics...."

He writes, "Being an economist in a non-economics department, I spend a lot of time explaining to students and colleagues what economics is and why it is important for studying higher education issues. My hope is that the book will help bridge this gap a little. The econ department at IUP was very influential on me, and you guys should all feel good about the work that you are doing. I teach econometrics here in the Institute and can still remember being in your Intro Stats class and how it got me interested in statistics."

".... In particular, please take a look at the acknowledgements on the last two pages of the Table of Contents. You guys helped rescue me from a life of misery if I had decided to major in business or something else other than economics. Thank you." On the acknowledgements page Rob writes: "I would like to thank all of the economics professors at Indiana University of Pennsylvania and Indiana University (Bloomington) for helping me to appreciate economic reasoning. In particular, professors such as Nicholas Karatjas, Art Martel, and Robert Stonebraker taught me that thinking like an economist can be fun...."

Editor's Note: Rob also called attention to an article co-authored by Professor Emeritus Robert Stonebraker. It may help explain why my "hotness" rating on Rate My Professors dropped...!

"Finally, Bob Stonebraker is probably too modest to mention this, but he recently published a research paper in the journal that I edit. The article is titled "Too Old to Teach? The Effect of Age on College and University Professors" and it appeared in *Research in Higher Education*, volume 56, number 8, December 2015. He found that there was a negative association between a faculty member's age and their instructional ratings on RateMyProfessor.com, and the negative effect kicked in after age 45 (this helps explain the drop in my student evals!). The paper was co-authored with Gary Stone, giving rise to the unique pairing of "Stonebraker and Stone" as authors."



Above is a picture of Rob's "book signing," which Rob writes, "Consisted of me forcing my wife to take a signed copy."


Keep in touch!

The faculty in the Department of Economics are always thrilled to hear from their former students. Please keep us posted on your work and well-being. Feel free to drop us a note via email, letter, or phone call. Or, complete the Alumni Information Form (on page 7).

SCHOLARSHIPS: HOW YOU CAN HELP

As current economics students juggle financing their college education with other responsibilities, they often look towards scholarships to help fill the gap. Through the support of generous alumni, faculty and staff members, emeriti professors, and friends, three endowed scholarships are currently available to current economics students:

- 0505 – Karl A. McDermott Scholarship for Economics
- 0449 – Robert J. Stonebraker Scholarship for Economics
- 0359 – Donald A. Walker Department of Economics Scholarship

The Donald A. Walker Department of Economics Scholarship and the Robert J. Stonebraker Scholarship for Economics were established to provide a lasting tribute to acknowledge the impact of these (emeriti) professors on economics students during their tenure at IUP. Scholarships can also be established by alumni. Dr. Karl McDermott set up an endowed scholarship to recognize the impact of his IUP education on his professional career and to provide scholarship assistance to future economics students. These funds will continue to supply annual scholarships for IUP students for years to come. However, to increase the impact of the annual scholarship payout, additional donations to these funds are needed. Your gift will assist in increasing the annual scholarship payout. You can support future economics students by designating your gift to any of these scholarship funds. Go to the IUP secure on-line giving form at www.iup.edu/giveagift to make your gift now. Be sure to select the “specific area at IUP” option and indicate your fund designation (see account numbers above) in the “other” area on the form.

For more information about how you can support one of these economics scholarships or to discuss the process of establishing your own scholarship, please contact: Chrystie Raymond, Development Officer, at (724) 357-1961 or chrystie.raymond@iup.edu.

**I would like to support scholarships for IUP students
in the Economics Department by making a gift to the Foundation for IUP.**

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City: _____ State: _____ Zip Code: _____ Phone Number: _____

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To make a one-time or recurring gift online, visit www.iup.edu/giveagift.

Please mail this form along with payment, if applicable to: Foundation for IUP, Sutton Hall, Room G1, 1011 South Drive, Indiana, PA 15705-1046. Or, to pay by credit card visit www.iup.edu/stonebraker.

I prefer not to have my name included in IUP's online donor listing (please initial).

The Foundation for IUP is a 501(c)(3) organization; gifts to The Foundation are tax deductible as per IRS regulations. The official registration and financial information of the Foundation for Indiana University of Pennsylvania may be obtained from the Pennsylvania Department of State by calling toll free, within Pennsylvania, 1-800-732-0999. For calls which originate outside of Pennsylvania, the telephone number is 717-783-1720. Registration does not imply endorsement.

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FACULTY NOTES

Dr. Brandon C. Vick and ten students attended the 15th annual Appalachian Teaching Project (ATP) Symposium in Washington, DC, on December 4 and 5, 2015. Students from IUP presented a project on "Poverty Traps and Sustainable Solutions: Using Mixed Methods to Understand the Economic Barriers to Living-Wage Jobs in Indiana, Pennsylvania." Dr. Vick, who was named an Appalachian Teaching Fellow for the 2015-16 academic year, led students in their research.

Professor Emeritus Robert J. Stonebraker's article "Too Old to Teach? The Effect of Age on College and University Professors" (co-authored with Dr. Gary S. Stone) was published in *Research in Higher Education*, December 2015, Vol. 56, Issue 8, pp. 793-812.

Dr. Stephanie M. Jozefowicz delivered an economics lesson to all of the 2nd grade students at both Ben Franklin and East Pike Elementary Schools in the Indiana Area School District in December 2015. The lesson, which covered concepts such as goods, producers, human resources, capital resources, natural resources, production costs, and specialization, was based on *The Night Henry Ford Met Santa* written by Carol Hagen. The students made paper chains to demonstrate how an assembly line can achieve greater productivity. Through the use of this children's literature selection, Dr. Jozefowicz was able to incorporate the Pennsylvania learning standards for economics within the context of the greater second grade social studies curriculum.

Dr. James J. Jozefowicz's article "'Keystone Kops' and Crime Theories: A Panel Data Analysis of Pennsylvania County Crime Rates," co-authored with alumnus **Zackary T. Nelson ('14)**, was published in the *Pennsylvania Economic Review*, 2015, Vol. 22, No. 1, pp. 1-23.

"An Investigation of Current Account Sustainability in Five ASEAN Countries," co-authored by **Dr. Yaya Sissoko** and **Dr. James J. Jozefowicz**, was published in *Microeconomics and Macroeconomics*, 2016, Vol. 4, No. 1, pp. 1-16.

Dr. Christopher R. Jeffords co-contributed to a United Nations report on implementing environmental rights. Written by Professor John Knox, the United Nations Special Rapporteur on Human Rights and the Environment, the Implementation Report describes "possible methods of implementing human rights obligations to the enjoyment of a healthy environment." Contributing to Professor Knox's call for inputs, Dr. Jeffords and Dr. Josh Gellers (University of North Florida) submitted a brief report outlining the reasons why countries adopt constitutional environmental rights provisions and the subsequent effects said provisions have (or do not have) on environmental outcomes. Information about Professor Knox's report and the report itself are available through the United Nations Office of the High Commissioner.

"Do Constitutions Matter? The Effects of Constitutional Environmental Rights Provisions on Environmental Outcomes" by **Drs. Christopher R. Jeffords** and Lanse Minkler (University of Connecticut) was published in *KYKLOS*, Vol. 69, Issue 2, pp. 294-335. The paper is about the effects of constitutional environmental rights provisions on environmental outcomes.

"Employment Dynamics by Gender in Pennsylvania since the Great Recession," co-authored by **Dr. Yaya Sissoko** and Brian Sloboda (University of Maryland University College), was published in *The Review of Regional Studies*, 2016, Vol. 46, No. 1, pp. 91-106.

Faculty

Dr. Christopher R. Jeffords
Christopher.Jeffords@iup.edu
 Dr. James J. Jozefowicz
James.Jozefowicz@iup.edu
 Dr. Stephanie M. Jozefowicz
Stephanie.Jozefowicz@iup.edu
 Dr. Nicholas Karatjas
Nicholas.Karatjas@iup.edu
 Dr. Todd B. Potts
Todd.Potts@iup.edu
 Dr. Willard W. Radell
Willard.Radell@iup.edu
 Dr. Yaya Sissoko
Yaya.Sissoko@iup.edu
 Dr. Alexi S. Thompson
Alexi.Thompson@iup.edu
 Dr. Brandon C. Vick
Brandon.Vick@iup.edu
 Dr. David B. Yerger
David.Yerger@iup.edu

Faculty Emeriti

Dr. Arthur H. Martel
amartel@auxmail.iup.edu
 Dr. Robert J. Stonebraker
stonebrakerr@winthrop.edu
 Dr. Donald A. Walker
dawalker@iup.edu

FACULTY NOTES (CONT.)

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Dr. Stephanie M. Jozefowicz was invited to attend the Pearson Economics Summit: Partnership for Success, Employability and Innovation, held February 12–14, 2016, at the Loews Coronado Hotel, in Coronado, CA. She joined Pearson staff, authors, industry leaders and economics faculty from across the country, to discuss how to work together to better help students achieve success in their courses and careers through innovation in learning. Throughout the summit, she was able to share feedback and ideas and also learn from others through discussion, speakers, round-tables, hands-on activities, and surveys. Key event presenters included Glenn Hubbard, Dean of Columbia Business School; David Laibson, Professor and Department Chair at Harvard University; and Keith Taylor, FRED Data Coordinator at the Federal Reserve Bank of St. Louis.

Dr. Yaya Sissoko presented “Determinants of Economic Growth in ECOWAS Countries: An Empirical Investigation,” co-authored with Brian Sloboda (University of Maryland University College); and **Dr. James J. Jozefowicz** presented “Current Account Sustainability of the ASEAN Countries,” co-authored with **Dr. Yaya Sissoko**, at the Eastern Economic Association’s 42nd annual conference held in Washington, DC, on February 25–28, 2016.

Dr. Todd B. Potts presented a paper, coauthored with **Dr. David B. Yerger**, titled “Suicide and Non-Suicide Gun Deaths Across U.S. States: The Role of Gun Ownership Rates, Gun Control Laws, and Regional Culture” at the 96th Annual Meeting of the Southwest Social Science Association in Las Vegas, NV, in March 2016.

Dr. David B. Yerger presented a paper, coauthored with **Dr. Brandon C. Vick**, titled “Assessing the Skill Intensity of Post-2001 Veterans’ Civilian Occupations: Revealed Skill Advantages and Implications for Transitioning to Civilian Employment” at the 96th Annual Meeting of the Southwest Social Science Association in Las Vegas, NV, in March 2016. At the same meetings, **Dr. Yerger** also chaired the session “Topics in Public Economics.”

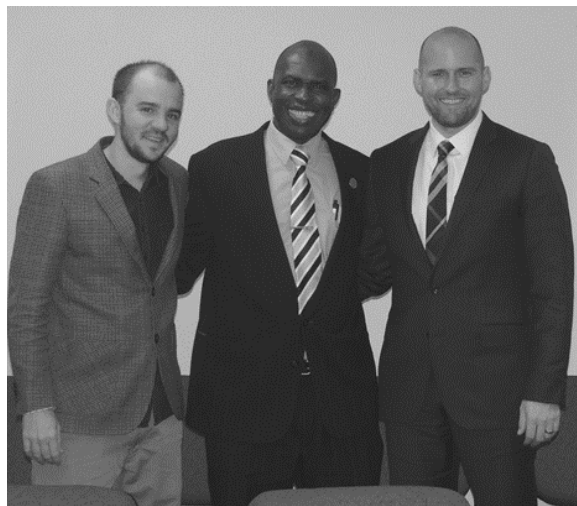
Dr. Yaya Sissoko was a guest speaker in PNAF 131 Introduction to Pan-African Studies on March 21, 2016. Dr. Sissoko’s talk was related to “The Post-Colonialism and Its Impacts on African Countries.”

Drs. Yaya Sissoko and **Alexi S. Thompson** presented “Determinants of the Colombian Peso: Is the Price of Cocaine a Factor?” at the Midwest Economics Association’s 80th annual conference held April 1–3, 2016, in Evanston, IL.

Dr. Brandon C. Vick presented his research “Exploring a Multidimensional Index for Veteran Reintegration” at the Midwest Economics Association annual conference in Evanston, IL, on April 1, 2016.

The 11th annual Undergraduate Scholars Forum (USF) was held on April 5, 2016, in the Hadley Union Building. **Dr. James J. Jozefowicz** organized the Undergraduate Scholars Forum session “Economic Development.” **Drs. Todd B. Potts** and **Yaya Sissoko** judged the session. In addition, **Dr. Yaya Sissoko** organized the USF sessions “Investment Portfolios” and “African Economics.” **Drs. Todd B. Potts, Alexi S. Thompson, and Brandon C. Vick** judged the sessions.

In an upcoming edition of *Economics Bulletin*, a recently accepted paper by **Drs. Christopher R. Jeffords** and **Alexi S. Thompson** offers an empirical analysis of fatal crimes against environmental and land activists. Their results demonstrate the presence of an inverted U-shaped relationship between fatal crimes against environmental and land activists and income per capita for a group of 34 countries from 2002–2013. Using panel data estimation techniques, the results are robust to controlling for rule of law, control of corruption, deforestation, homicide rates, and natural resource dependence.



Drs. Alexi Thompson, Yaya Sissoko, and Todd Potts at the USF.

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FACULTY NOTES (CONT.)

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Dr. Yaya Sissoko presented “The Business and Investment Opportunities in Africa” at African Night in April. Dr. Sissoko is the faculty advisor of the Pan–African Student Association (PASA) and coordinator of African Night 2016.

Dr. Cherif Keita, a filmmaker and professor at Carlton College, Northfield, MN, was a guest speaker in **Dr. Yaya Sissoko’s** ECON 338 Poverty in Africa class in April. Dr. Keita screened and discussed his film “Djoliba” about the first American project in the newly independent country, Mali, in 1962. Later on the same day, IUP hosted Dr. Keita as he screened and discussed his film “Remembering Nokutela.” The film brings to light the once forgotten contributions of Nokutela Mdimba Dube in early–twentieth–century efforts to empower black South Africans.

In April 2016 **Dr. Stephanie M. Jozefowicz** delivered an economics lesson to some 3rd grade students at East Pike Elementary School. It tied together economic concepts including opportunity cost, productive resources, and saving to the children's literature book *Beatrice’s Goat* written by Page McBrier. This lesson enhanced concepts being taught in the 3rd grade social studies textbook.

Two of **Dr. Yaya Sissoko’s** papers titled “Explaining the Flows of Foreign Portfolio Investments to Emerging Markets: The Case of South Africa” and “The Recent Experiences of Capital Flows and Fiscal Imbalances since the Creation of the Eurozone” have been accepted for presentation at the 36th International Business Research Conference to be held in Toronto, Canada, on July 14–16, 2016.



CONGRATULATIONS MAY 2016 GRADUATES!

The Department of Economics wishes to congratulate the following award recipients. The awards were presented at the May 7, 2016, Department of Economics Commencement Ceremony.

- *Bright Dismal Scientist Award*, which is awarded annually to the graduating major chosen by the faculty on the basis of academic interest, achievement, and service: **Michael Dailey**
- *Dr. Brewer Award*, which is awarded annually to a female graduating major chosen by the faculty on the basis of academic achievement in Economics and professional character: **Jennifer Johnson**
- *Dr. Jack D. Julian Memorial Award*, which is awarded to the graduating major with the highest grade–point–average in Economics: **Derek Hanely**

In addition, the Department of Economics Honors Track graduates were: **Michael Dailey, Joseph Franze, Derek Hanely, Jennifer Johnson, Alexandra Larch, Erica Sittig (December graduate), Savannah Thorpe, and John Wygonik.**

Alumni Information

The Department of Economics aims to maintain a current contact list of all of our alumni. Please let us know what you are doing!

Name: _____

Graduation year, degree earned: _____

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City, State, Zip: _____

Your news for the newsletter: _____

Mail to: Alumni News, Department of Economics,
213 McElhaney Hall, Indiana University of PA,
Indiana, PA 15705

STUDENT NOTES

- At the 2016 IUP Undergraduate Scholars Forum held on April 5, the following economics students and majors presented their research papers.
 - Ian Bright and **Derek W. Hanely**: “An Analysis of Optimizing Philanthropic Investment Allocation in Undergraduate Education” (Advisor: Dr. John C. Chrispell)
 - **Marc A. Colon**: “VSE Managed Investing Portfolio” (Advisor: Dr. Yaya Sissoko)
 - **Krenn E. Crider**: “Egypt: Democracy, Corruption, and Poverty Alleviation: Challenges Ahead” (Advisor: Dr. Yaya Sissoko)
 - **Patrick S. Edwards** and **Hannah C. Mercer**: “An Analysis of Gender Inequality in Professional Tennis” (Advisor: Dr. James J. Jozefowicz)
 - **Elizabeth A. Johnson**: “Portfolio Management: A Venture of Risk and Return” (Advisor: Dr. Yaya Sissoko)
 - **Donisha N. Kendrick**: “Gender Wage Disparity in Higher Education: Unionization versus Non-Unionization” (Advisor: Dr. Stephanie M. Jozefowicz)
 - **Julian A. Sebia**: “Diminishing Poverty and the Spread of Income Inequality throughout Sudan” (Advisor: Dr. Yaya Sissoko)
 - **Christopher M. Seibel**: “The Use of Environmental Factors to Increase Rwanda’s Income and Employment Growth” (Advisor: Dr. Yaya Sissoko)
 - **Joshua Soundararajan**: “Daytrading in the Stock Market: Minimizing Risk and Maximizing Profits” (Advisor: Dr. Yaya Sissoko)
 - **Robert M. Stock**: “Player Statistics and Characteristics and the Impact on Player Salaries in the National Hockey League” (Advisor: Dr. James J. Jozefowicz)
 - **Bradley J. Taylor**: “Effects of Poverty from Lack of Public Services in the Democratic Republic of the Congo” (Advisor: Dr. Yaya Sissoko)

In addition, at the Forum, economics majors **Patrick S. Edwards** and **Hannah C. Mercer** won the College of Humanities and Social Sciences Dean’s Award for their presentation, and economics major **Derek Hanely** (along with co-author Ian Bright) won the College of Natural Sciences and Mathematics Dean’s Award for their presentation. This marks the eleventh consecutive year that presentations by economics majors have won awards at the Undergraduate Scholars Forum.



Faculty and student presenters at the Undergraduate Scholars Forum (USF): From left, Dr. Alexi Thompson, Dr. Yaya Sissoko, Krenn Crider, Julian Sebia, Christopher Seibel, Bradley Taylor, and Dr. Brandon Vick.

STUDENT NOTES (CONT.)

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- Congratulations to **Jennifer Johnson** who was one of four undergraduate students invited by the School of Graduate Studies and Research to represent IUP at the Undergraduate Research at the Capitol–Pennsylvania event held on April 5, 2016, in Harrisburg, PA. The students presented their award-winning projects from the 2015 IUP Undergraduate Scholars Forum. According to its webpage, the Undergraduate Research at the Capitol–Pennsylvania “poster conference is an educational event allowing the undergraduate students enrolled in Pennsylvania’s colleges and universities to showcase their research talents to the Commonwealth’s key decision-makers.” Participants in the 2016 event included 64 undergraduate students who represented 32 colleges and universities across the Commonwealth of Pennsylvania. Jennifer's paper "Determinants of Per Capita Electricity Consumption at the State Level" was the only example of economics research in the poster session. Her faculty advisor was **Dr. James J. Jozefowicz**. Jennifer had the opportunity to discuss her work with 2016 IUP Distinguished Alumni Award recipient, **Representative Dave Reed ('00)**, pictured above, in the East Wing Rotunda of the Capitol Building.



Jennifer Johnson with State Rep. Dave Reed

- The Economics Club raised \$300 for the IUP Relay for Life through the American Cancer Society. The event was held on April 23–24, 2016, in the Memorial Field House.
- Congratulations to **Hannah Mercer** who was awarded the 2016–17 Karl A. McDermott Scholarship for Economics.
- Congratulations to **Gabrielle Gentilcore** who was awarded the 2016–17 Donald A. Walker Department of Economics Scholarship.
- Congratulations to **Abdullah Muhammad** who was awarded the 2016–17 Robert J. Stonebraker Scholarship for Economics.
- Economics major **Hannah Mercer** has obtained a summer internship with Thermo Fisher Scientific located in Pittsburgh, PA. She will be the business development associate intern, and her tasks will be focused around marketing and analytics. As part of the interview process, Hannah was asked what piece of work she was most proud of and why. She provided her research paper entitled "An Analysis of Gender Inequality in Professional Tennis" which she completed in Introduction to Econometrics during the Fall 2015 semester. According to Hannah, she credits her econometrics paper as the main driving force for having the upper edge on the other applicants and obtaining this internship.

ECONOMIC GROWTH AND FATAL CRIMES (CONT.)

(continued from page 2)

Across 20 different model specifications, the results demonstrate a robust inverted U-shaped relationship between income per capita and fatal crimes against environmental and land activists. This implies that, all else equal, fatal crimes against environmental and land activists increase with increases in income per capita but eventually decline with further increases in income per capita. Given this relationship, it is possible to calculate the level of income per capita at which the turning point occurs. Across the 20 specifications, the turning point ranges from \$8,574 to \$10,460, which not only contains the average value of \$9,272 across the 34 countries and 11 years, but is also well within the range of reported income per capita values: \$4,079 to \$16,316.

Another robust result implies that the prevalence of violent crimes (not including those against environmental and land activists) is positively related to fatal crimes against environmental and land activists. There is not much of a statistically significant relationship between rule of law, control of corruption, and resource rents, perhaps because of the sparsity of data and relatively small sample size or because they simply are not related or some other econometric issue.

The relationship between deforestation and environmental murders is tricky. In one set of results, where deforestation is measured simply as the percent of land covered in forest, the relationship is negative and statistically significant (in all six specifications where deforestation is included). In accordance with the findings of the GW report, this implies that more forest cover is associated with fewer environmental murders. In six different specifications, the relationship is still negative but not statistically significant. We then changed the measure of deforestation to the percent change in forest cover from one year to the next and found mixed results. This measure was positively related to environmental murders in some specifications and negative in others, with mixed statistical significance. Taken as a whole, the relationship between deforestation and environmental murders is murky at best. The results of our paper imply that deforestation could be positively or negatively related to environmental murders which implies that reforestation policies could be associated with more or fewer environmental murders. A policy thus aimed at increasing forest cover could have the unintended consequence of engendering situations associated with violence and fatal crimes.

Although the primary result of our paper is the inverted U-shaped relationship between fatal crimes against environmental and land activists and economic growth, we dare not say that any one of these countries can “grow” out of its environmental murders. Rather we point out that as global climate change persists and countries experience economic expansion and contraction, it will likely become increasingly important to consider policies directed at additional forms of environmental harm, not just the traditional forms of pollution and natural resource inadequacy (broadly speaking). Further research on the nexus between global warming and climate change, economic growth, and fatal crimes against environmental and land activists is certainly an important consideration, especially as each of these issues may be sensitive to climate and environmental pressures.

Note: References available upon request.

Indiana University of Pennsylvania

Department of Economics
213 McElhane Hall
441 North Walk
Indiana, PA 15705-1087

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