Examples of Impact

**Vivek Ghosal:** examining linkages between location of advanced manufacturing facilities and regional economic development.

Awarded funding (Co-PI with Dr. Frank Southworth, GT Civil Engineering) during 2012-2013 to examine the automobile assembly plant locations in Georgia and US Southeast, and their effects on local and regional economic and business development. The funding sources are: U.S. Department of Transportation, Georgia Department of Transportation, and Woodruff Foundation, 2012-2013.

The initial results from this project indicate diverse and far-reaching effects related to influx of new businesses, employment generation, injection of skilled labor, among other benefits. On this topic, he has several research papers in progress which will be submitted to peer-reviewed journals. To present the initial findings from the project, he was invited as a featured speaker at a conference on “Production, Logistics and Traffic: Dynamic Integration, Future Trends and Future Solutions Optimization” (Darmstadt, Germany, 2013), and has made presentations at University Transportation Centers Conference (Orlando, FL, 2013) and the Institute for Supply Chain Management, European Business School (Wiesbaden, Germany, 2012).

This funding was a follow-up on his 2011-2012 grant (PI) on “Assessing Transportation Equipment Manufacturing Capabilities for U.S. High-Speed Rail Infrastructure Investments,” which was funded by the U.S. Department of Transportation.

**Vivek Ghosal:** has a continuing research agenda focused on regulatory reforms that promote competition and innovation. He has collaborated extensively with the Organization for Economic Cooperation and Development (Paris) to create a framework for regulatory evaluation. The key objectives of this policy-oriented scholarship are to examine the myriad regulations that exist at local, regional and national levels, and suggest either restructuring or eliminating them to promote competition, innovation and growth in markets. He has been invited by various institutions and Governments to deliver lectures on this topic. These include his lectures at: Korea Development Institute, School of Public Policy and Management (Seoul, Korea); Development Bank of Japan (Tokyo, Japan); Taiwan Fair Trade Commission (Taipei, Taiwan); European Business School (Wiesbaden, Germany); and Indian Institute of Corporate Affairs and Competition Commission of India (New Delhi, India). As part of this scholarship, his book “Reforming Rules and Regulations: Laws, Institutions and Implementation” was published by the MIT Press in 2011.

**Haizheng Li:** Checking the Global Economic Pulse by Measuring Human Capital

On the macro level, an international team of scholars from the U.S. and China is working with Dr. Li to measure China's human capital stock, both at the national and provincial levels. They
started this work in 2008; it is supported by the Chinese National Science Foundation. Analyzing data from 1985 to 2009, they have finished an estimation of China's human capital at the national level and are in the process of estimating human capital for each of the 31 province-level administrative areas. Of these, 17 have been completed so far. Human capital has played a significant role in China's dramatic economic growth -- per capita real human capital increased almost four times in China during 1985-2009, although there remain significant disparities in human capital between urban and rural areas, and between men and women. China has a large total human capital stock, but on a per capita basis it is small compared to other countries -- one-fourth of Canada's and only one-sixth of the U.S.'s human capital stock. So China still has a long way to go before it will become a leading country in human capital. Until we began our work in 2008, there had been almost no comprehensive measurement of the total stock of human capital in China. Human capital measures for China are central to any understanding of the global importance of human capital for a number of reasons. China is the most populous country in the world, so it's important to understand the dynamics of human capital caused by demographic changes and by the rapid expansion of education during the course of economic development. In addition, such measures allow for better assessment of the contribution of human capital to growth, development and social well-being in empirical and theoretical research. Li's research team has released a China human capital report annually since 2009, and the series has drawn a lot of attention. In fact, the World Bank has incorporated their human capital measurement in China into its official report.

**Haizheng Li: Measuring Lifelong Learning**

With funding from the European Union, Dr. Li works with interdisciplinary research teams from different countries developing a measurement of complex problem-solving skills, studying how the these skills are formed, and how they affect the productivity of individuals, companies and countries. The research involves researchers from economics, public policy and psychology. “We tell the psychologists what we want to measure, for example, and they come up with a test that's administered to a representative sample of individuals. We then take the test results and apply that data -- complex problem solving ability -- to our measurement of human capital.” A unique aspect of the European Union study is that the research teams simultaneously develop the complex problem-solving skills measurement, study its sources and its impact at the individual, company and country levels. Traditionally, human capital has been measured by education and job training -- identifying complex problem-solving skills adds a new and useful dimension. In the U.S., for example, while highly skilled individuals account for only 10 percent of the workforce, they have a disproportionately large impact on the economy and economic development. This is a growing trend among Western countries, so the construction of comprehensive human capital measures that take into account the growing importance of complex job skills is an important step in assessing economic growth.

**Shatakshee Dhongde Receives Teaching Excellence Award**

Dr. Shatakshee Dhongde, assistant professor in the School of Economics, has been named a 2013 CETL/BP Junior Faculty Teaching Excellence Award recipient.
"When I am in a classroom, I do not stand in front of the students to teach them—perhaps I am too young, too inexperienced and too unorthodox to do that—I strongly believe that I am in the classroom to facilitate learning among students," Dhongde wrote in her reflective statement. "Every semester, we embark on this journey together—we learn the material together. The students learn it for the first time, I learn it the second, the third, the nth time…but the joy of discovery never fades."

The award is co-sponsored by the Georgia Tech Center for the Enhancement of Teaching and Learning (CETL) and BP America. Annually up to six $3,000 awards are given in recognition of teaching excellence and educational innovation on the part of Junior Faculty.

**Shatakshee Dhongde**’s research on poverty wins award

Congratulations to **Shatakshee Dhongde**, assistant professor in the School of Economics, who, in August 2012 was awarded the Nancy and Richard Ruggles Memorial Fund Prize for her paper “Measuring Segregation of the Poor in India.” In the paper, Dr. Dhongde proposes a poverty segregation curve to measure regional inequality in the distribution of the poor in India, particularly in the urban sector. The Ruggles Prize aims to develop the scholarship of young researchers. Dr. Dhongde was presented the prize at the International Association for Research in Income and Wealth (IARIW) General Conference.

**Economics Students Present Impact Analysis of $20 Million Aerospace Investment to State Legislature**

In February of 2011, Governor Nathan Deal announced a nearly $20 million expansion of Pratt & Whitney’s Columbus Engine Center in Columbus, Georgia. Two economics majors have researched the impact of that expansion and will present their research to the Georgia State Legislature.

Majority Leader Larry O’Neal has requested that members of the House Economic Development Committee, Special Committee on Small Business Development and Job Creation, and the Ways and Means Committee attend a presentation of research findings by Mark Williams and Christopher Taylor, students in the School of Economics, on January 15, 2013.

Williams and Taylor spent their Senior Capstone course under Christine Ries, professor in the School of Economics, researching the Pratt & Whitney investment: $19.3 million spent on an expansion to retrofit a building, install new equipment, and overhaul the engine for the F177 – the power plant for the C-17 Globemaster III military cargo aircraft. Increased service capacity was projected to add about 180 new manufacturing jobs to the 300 already employed at the center, and the investment overall adds to Georgia’s growing preeminence in aerospace in an increasingly competitive and profitable global engine overhaul market.

The key first step of the students’ analysis was the assignment of a NAICS code to represent the industry characteristics of the Pratt & Whitney expansion. Within the economic impact program,
the NAICS code determines the size and direction of each step in the path of the ripple effect. Most economic impact analysts choose the code that seems closest to the type of business under analysis; however, the Pratt & Whitney expansion is really a combination of the types of codes available in the NAICS system. It is certainly an aerospace company, but this particular operation represents a service more than a manufacturing operation.

Williams and Taylor compared the analytical results achieved using different and various NAICS codes and compared these to their fuller understanding of the Pratt & Whitney business for this particular operation. In the end, their analysis is a much more accurate projection of the impact of the expansion on Georgia. Their work provides, through use of a complex and important industrial example, an important lesson in the use of economic impact analysis for public policy interpretation and use.

Metrics

I. Educational Programs (period under review summer, fall, spring terms)

1. Results of Program Review (summarize from report)

2. Enrollment (IRP)
   A. Credit Hours: (summer, fall, spring)
      i. by schools in IAC (ug: ld, ud, total; grad: total)
      ii. by colleges at GT (ug: ld, ud, total; grad: total)
   B. Credit Hours: Five Year History
      i. by schools in IAC (ug: ld, ud, total; grad: total)
      ii. by colleges at GT (ug: ld, ud, total; grad: total)
   C. UG and Grad Degrees Awarded: (summer, fall, spring):
      i. by majors in IAC
      ii. by colleges at GT
   D. Undergraduate Majors (include double majors – use spring term)
      i. by majors in IAC
      ii. by colleges at GT
      iii. by majors in IAC five-year trend
      iv. by colleges at GT five-year trend
      v. by majors in IAC and at GT showing SAT
      vi. by majors in IAC and at GT showing gender
      vii. by majors in IAC and at GT showing race/ethnicity
   E. Graduate Majors (spring term)
      i. by majors in IAC (with second major)
      ii. by colleges at GT (with second major)
      iii. by majors in IAC five-year trend (with second major)
      iv. by colleges at GT five-year trend (with second major)
   F. Minors (Schools)
      i. by minor in IAC
         1. 139 minors
ii. five-year trend by minor in IAC

G. Certificates (Schools)
   i. by certificate in IAC
      1. 3 certificates
   ii. five-year trend by certificate in IAC

H. International Experiences (OIE)
   i. International Plan Participation by major in IAC
   ii. International Plan Participation by college at GT
   iii. Study Abroad by major in IAC
   iv. Study Abroad by college at GT
   v. Work abroad by major in IAC
   vi. Work abroad by college at GT
   vii. IP/Study abroad/Work abroad 5 year trends IAC/GT

I. Research (UROP)
   i. Research option by schools in IAC
   ii. Research option by colleges at GT
   iii. Research option 5-year trends IAC/GT
   iv. PURA grants received by schools in IAC
   v. PURA grants received by colleges at GT
   vi. PURA grants 5-year trends IAC/GT

J. Work Experiences
   i. Coop (DoPP database)
   ii. Internships
      1. Andrea Harris (EIA) FCS Urban Ministries
      2. Katherine Hawkins (ECON) Digital Assent
      3. Cameron Moore (ECON) Raymond James
      4. Viet Ha Ngo (EIA) IBM-HR
      5. Anton Warendh (EIA) World 50, Inc.
      6. Bhavik Pandya (EIA) Georgia Senate
      7. Elizabeth Schunk (EIA) TripLingo
      8. Emily Jones (EIA) Clare Boothe Luce Policy Institution
      9. Michael DeLaGuardia (EIA) GA General Assembly Legislative Intern Program
     10. Siqi Han (EIA) GA Department of Economic Development
     12. Emily Boone (ECON) RaceTrac Petroleum, Inc.
     13. Marlama Creed (ECON) Lufthansa Cargo

K. Admissions and Recruitment (IAC)
   i. Number Applied, Accepted, Deposited (with %) by college at GT
   ii. Number Deposited by IAC Major with SAT, GPA compared to GT

3. Students
   A. Graduated with Honors
      i. Highest (Give Number)
         1. Econ: 1
         2. EIA: 5
         3. GEML: 1
      ii. High (Give Number)
1. Econ: 2
2. EIA: 1
3. GEML: 1

iii. Honors (Give Number)
1. Econ: 1
2. EIA: 3
3. GEML: 1

iv. GPA by colleges at GT last available semester

B. Undergraduate Productivity (Give name/title/place/date)
i. Publications
ii. Performances
iii. Papers Presented
iv. Grants
v. Awards
vi. Acceptance into Graduate/Professional Programs (Name/program)
1. Elizabeth Devyatkin, University of Pennsylvania

vii. Acceptance of Job Offer (Name/company)
1. Marie Turner, Wells Fargo
2. Liana Wildebuer, Capgemini
3. Sadat Karim, Federal Reserve Bank Atlanta

viii. Other
C. Graduate Productivity (Give name/title/place/date)
i. Publications


ii. Performances

iii. Papers Presented


iv. Grants

v. Awards

vi. Acceptance into Graduate/Professional Programs (Name/program)


vii. Acceptance of Job Offer (Name/company)

1. Ashley Cline. Accepted position as Analyst at Procurian doing energy procurement in deregulated markets in the US and Canada.
3. Qing Han. Accepted position as Marketing Associate at Aflac.

viii. Other
D. New Degree Programs and Courses (List)
F. Other

II. Faculty (period under review March 1-February 29)

1. New faculty hired (Name, Phd, field)
2. Significant leaves of absence, visiting professorships, invitations to speak
   1. David Laband, invitation to speak: 1
   2. Thomas Boston, invitations to speak: 4
   3. Shatakshie Dhonge, invitations to speak: 3
   4. Vivek Ghosal, invitations to speak: 6
   5. Christine Ries, invitation to speak: 1
   6. Haizheng Li, invitation to speak: 1
   7. Mikhail Klimenko, invitation to speak: 1
   8. Olga Shemyakina, invitations to speak: 5
   9. Byung-Cheol Kim, invitations to speak: 3
  10. Ruth Uwaifo Oyelere, invitations to speak: 2
  11. Juan Moreno Cruz, invitation to speak: 1
3. Publications (only include those actually appearing during period under review)
   A. Books (Author, title, publisher, year of publication)
      i. Single authored (List author, title, publisher, year of publication)
ii. Co-authored (List author, title, publisher, year of publication)

iii. Edited (List author, title, publisher, year of publication)

iv. Other

B. Articles and Papers (Give numbers)
i. Single authored, peer reviewed:
1. Shatakshie Dhongde: 1
2. Levent Kutlu: 2
3. Vivek Ghosal: 1
4. Olga Shemyakina: 1

ii. Co-authored, peer reviewed:
1. Juan Moreno Cruz: 2
2. Ruth Uwaifo Oyelere: 2
3. Byung-Cheol Kim: 2
4. Vivek Ghosal: 1
5. Pat McCarthy: 3
6. Thomas Boston: 1
7. Olga Shemyakina: 2
8. Haizheng Li: 1
9. David Laband: 1

iii. Chapters in books:
1. Vivek Ghosal: 2
2. Haizheng Li: 1
3. David Laband: 2

iv. Presentations at conferences:
1. Juan Moreno Cruz: 1
2. Shatakshie Dhongde: 3
3. Levent Kutlu: 1
4. Ruth Uwaifo Oyelere: 4
5. Tibor Besedes: 4
7. Willie Belton: 1
8. Usha Nair-Reichert: 1
9. Mikhail Klimenko: 1
10. Vivek Ghosal: 8
11. Pat McCarthy: 1
12. Thomas Boston: 3
13. Erik Johnson: 1
14. Olga Shemyakina: 5
15. Christine Ries: 1
16. Haizheng Li: 2
17. David Laband: 1

v. Presentations at workshops and other:
1. Juan Moreno Cruz: 2
2. Shatakshie Dhongde: 1
3. Ruth Uwaifo Oyelere: 4
4. Tibor Besedes: 5
5. Byung-Cheol Kim: 3
6. Willie Belton: 1
7. Usha Nair-Reichtert: 1
8. Mikhail Klimenko: 1
9. Vivek Ghosal: 6
10. Pat McCarthy: 3
11. Thomas Boston: 1
12. Olga Shemyakina: 3
13. Christine Ries: 9
14. Levent Kutlu: 1
15. Haizheng Li: 2

4. Awards (Name, Award name)
   Thomas Boston, IAC Dean’s Distinction for having conducted more than $1 million in sponsored research
   A. Book
   B. Article
      1. Shatakshee Dhongde: The Nancy and Richard Ruggles Prize for best research paper at the General Conference of the International Association for Research in Income and Wealth
   C. Teaching
      1. Thomas Boston, Willie Belton, Vivek Ghosal, and David Laband, CETL Thank a Teacher Award
      2. Shatakshee Dhongde, CETL/BP Junior Faculty Teaching Excellence Award, Class of 1934 Course Survey Teaching Effectiveness Award, CIOS Teaching Excellence Award, CETL Thank a Teacher Award

5. New Research Grants (name, source, amount, topic)
   1. Shatakshee Dhongde, Defense Threat Reduction Agency of US Department of Defense, $80,000, Multidisciplinary modeling of socio-economic influence on adversarial intent to acquire, proliferate and use chemical, biological, radiological, and nuclear weapons
   2. Shatakshee Dhongde, The Stanford Center on Poverty and Inequality, $1,500, Measuring Multi-dimensional Poverty in the United States
   3. Ruth Uwaifo Oyelere, GDOT, $225,000, Economic Development and Workforce Impacts of GDOT
   4. Byung-Cheol Kim, The Korea Institute of Science and Technology Information, $55,000, A Pilot Study on Global Technology Commercialization Networking Platforms
   5. Willie Belton, IAC SGR, $20,000, Social Capital Development Across US Counties
   6. Vivek Ghosal, US DOT/GA DOT/Woodruff Foundation, $300,000, Micro-Dynamics of Business Location & Growth, and its effects on the Transportation Network and Congestion in the U.S. Southeast Region
   7. Thomas Boston, Georgia Department of Transportation/University Transportation Center, $225,000, Economic Development and Workforce Impacts of State DOT Highway Expenditures
   8. Thomas Boston, Pew Charitable Trust, $144,992, Health Impact Assessment of Atlanta Regional Plan 2040
   9. Thomas Boston, MacArthur Foundation, $50,000 supplement to $500,000 award, Public Housing Revitalization and Family Self-Sufficiency 2006-2013
   10. Christine Ries, Georgia Public Policy Foundation, $30,000, Pro-Growth Tax Reform Project
   11. Haizheng Li, European Union, 110,250 Euros, Human Capital and Skill Formation
12. Haizheng, Li, National Natural Science Foundation of China, RMB 540,000, Human Capital Index System Improvement and Further Research

6. Other professional activities (give number)
   ___ elective office in professional society
      1. Ruth Uwaifo Oyelere: 1
      2. Christine Ries: 4
      3. Haizheng Li: 1
   ___ national committee chairs
   ___ non-elective office in professional society
   ___ edit journals or special issues of journals
   ___ editorial board members
   ___ national and international committees
      1. Usha Nair-Reichert: 1

7. Media coverage
   1. Christine Ries, appearance on Georgia Public TV. February. Panel discussion on Film Tax Credits in Georgia.
   2. Thomas Boston, monthly jobs report commentary on CNN

8. Other professional output such as performances, products, and installations
   1. Willie Belton: visiting professor of Economics at Korea University
   2. Mikhail Klimenko: visiting professor at SKEMA School of Management, France

9. Other indications of faculty impact
   1. Ruth Uwaifo Oyelere: Invited grant reviewer for the Institute for the Study of Labor (IZA) and the UK Department for International Development
   2. Usha Nair-Reichert: Community Outreach at English Avenue
   3. Pat McCarthy: Interim Chair, School of Modern Languages, Sept 2011-July 2012
   4. Christine Ries: Student presentation to Georgia General Assembly
   8. Christine Ries: Deliverable for the GPPF grant was the data collection, model and computer interface that is now publically available and widely used at www.taxreformthegame.com
   9. Thomas Boston: statistical analysis for U.S. Senate Committee on Small Business

10. Faculty activities promoting diversity at Tech
    1. Shatakshie Dhongde
       a. Attended reception organized by the VP of Institute Diversity in Fall 2012
       b. Attended the 2nd Annual Martin Luther King Jr. Institute Lecture by Martin Luther King III
       c. Participated in NSF ADVANCE workshops in Fall 2012 and Spring 2013
    2. Ruth Uwaifo Oyelere
       a. Participated in Faculty Dinner conversation focused on diversity and hosted by the Office of Institute Diversity
       b. Participated in ADVANCE sponsored programs on campus
III. Staff (period under review March 1-February 29)

1. New staff hired (name, position)
   Kelly Billings, Recruitment/retention coordinator
2. Awards (name, honor or award, amount)
3. Staff activities promoting diversity at Tech