



A Letter from the Chair

2010

Greetings — This is my first opportunity as Department Chair to say hello and provide an update on the state of the Economics Department.

I have been here a long time and yet I still remember clearly my first day in Chapel Hill. Before I came for my job market talk, I had never been south. I hadn't been much east or west either. I grew up in



Chicago, went to college in southeastern Minnesota, returned to Chicago for a couple of years to work at a hospital, and then moved to Minneapolis to work on my doctorate degree at Minnesota—Minneapolis.

My first trip to Chapel Hill came in February 1976 as part of an east coast swing that included New York and Washington. It was my first trip to Gotham and I was overwhelmed but managed to get from LGA to Penn Station and down to Princeton Junction for my interview at Mathmatica. The next day I woke to a snowstorm. I wasn't worried because I was from Minneapolis and had a whole day to get back to the airport.

I should have been worried. The Pennsylvania Railroad froze—literally— and a trip that normally took a couple of hours took most of the day. Fortunately, once back in New York, I found a cabbie to take me along the icy and deserted streets back to LaGuardia. The next morning the gods smiled. Traffic wasn't moving but airplanes were. I walked across the highway to the terminal and began my trip to Chapel Hill.

I can still remember the flight. After takeoff we turned south and crossed over the largest collection of gas tanks I had ever seen. I later learned it was called New Jersey. Gradually, the ground turned from white to green. Then, we started to cross over the largest forest I had ever seen. I later learned it was called North Carolina.

We landed and Richard Froyen was there to meet my plane. There was no 140 at that time and we took country roads back to Chapel Hill. We saw deer along the way which was more impressive then than it is now. I arrived on campus and had my first look at the Southern Part of Heaven. The sun was shining and students were tossing Frisbees on Polk place in their shirt sleeves. I fell in love.

It wasn't the weather that took my heart but the lively atmosphere in the Economics department. I managed to get out about a hundred words of my talk before the first interruption. Then I hung on for dear life as the comments and questions started coming and I tried to answer them and still tell my story. That seminar felt like a cross between twenty questions and bronco busting at a rodeo. Suffice it to say, UNC's was the liveliest department I encountered in my job market tour. I came to the conclusion that day that if I could convince the faculty at UNC that I had a good idea, I could convince anyone. I left Chapel Hill

two days later wanting very much to be a Tar Heel. Thirty-five years later I have not changed my mind.

It is a beautiful autumn day as I write. The sun is shining but the summer heat has spent its energy. The air is dry and cool and fall colors

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Economics Research at Carolina

Faculty research continues to be an integral part of Department activity and is critical to our mission as a major research university. Therefore, we think it is important to share with you some of our faculty's research. This year we feature the research of two of our faculty members, Donna B. Gilleskie and Neville Francis, who were recently promoted to Full Professor and Associate Professor, respectively.

The Triangle area is quickly becoming known in academic as well as policy circles for its concentration of talented researchers



of health economics issues. The Department of Economics at UNC is one of a small, but growing, number of departments across the country that offer health economics as a field of study. A prominent name in

this community is **Dr. Donna B. Gilleskie**, who was recently promoted to full Professor in our Department.

Professor Gilleskie considers herself a hybrid of health economist, labor economist, and applied econometrician. Although her research interests are generally considered health economics topics, her willingness to use rigorous empirical approaches to answer questions exhibits her interests in applied econometrics. Professor Gilleskie studies the economics of individual health behavior and her approach involves understanding the dynamics of decision making over time.

Professor Gilleskie says that her research contributions can be categorized in the following applied areas:

- The effect of health insurance characteristics on medical care utilization and health behaviors (e.g., to what extent does health insurance coverage of prescription drugs affect utilization of physician and hospital care both contemporaneously and dynamically through changes in health?). An example is her Econometrica (1998) paper that won the Kenneth J. Arrow Award for the best published paper on health economics worldwide. Other examples include her Journal of Human Resources (2009) and the Journal of Health Economics (2004) paper;
- The effect of health and health insurance on employment behavior and outcomes (e.g., to what extent would employment decisions be altered by the introduction of mandatory retiree health insurance coverage by employers?). See, as examples, Journal of Econometrics (2010), International Economic Review (2008), Journal of Applied Econometrics (2006), Journal of Human

Resources (2002), Review of Economics and Statistics (2001), and others;

• The effect of medical and non-medical choices on health and health behaviors (e.g., should policies to promote better health target medical care use or lifestyles?). Her recent publications in *Review of Economics and Statistics* (2007) and *Journal of Human Resources* (2005) serve as examples, the latter having been featured in *Business Week*.

While Professor Gilleskie finds herself describing her research interests using this categorization, she says that it has become increasingly useful to characterize her research in two additional ways: by the age of the individuals in her research sample and by empirical methodology.

Interests by age of subjects

Most of Professor Gilleskie's early work focused on the behaviors of the elderly and near elderly. In these early works she examined the effects of employer offerings (e.g., health insurance, pensions, wages) and state and federal policies (e.g., Medicare, Medicaid) on retirement decisions, asset and gifting behavior, long-term care utilization, and morbidity and mortality outcomes. Her recent works, however, focus on children and adolescents. In this body of work she examines the influence of cigarette prices, peer smoking behavior, acculturation, and neighborhood crime on childhood behaviors such as smoking, food consumption, and physical activity. Currently, she is looking at how these same influences have affected educational outcomes such as test scores and grades of elementary and college students.

Professor Gilleskie's work with children suggests that families and educators have a prime opportunity to influence the health behavior of children. Schools, teachers, care providers, and family are convenient resources for providing children with positive messages and for creating an environment for the enhancement of positive behaviors (e.g., diet and physical activity). Therefore, efforts to determine effective practices and policies at the school and community level will enhance desirable behaviors and reduce detrimental behaviors.

But what happens after graduation? This period in our lives is one in which we are likely to be spending five days a week at work. Are there incentives (e.g., smoking cessation and exercise programs) or disincentives (e.g., long hours, stress, lack of sleep) in the workplace that influence health behaviors and health outcomes? Professor Gilleskie's current interests include expanding our understanding of the role of the employer in promoting healthy behaviors in prime-age individuals. Her future research plans include further study of the behavior of prime-age individuals from young adulthood through middle age. In particular she wants to learn how health-related behaviors influence the future well-being of youths as young adults and productive members of society. Areas of influence include absenteeism, academic performance, criminal activity, college attendance, employment, work productivity, and wages.

Interests by empirical methodology

In an effort to further describe her contributions, one might categorize Professor Gilleskie's work by the empirical methodology she uses to understand individual behaviors. One approach involves writing down a theoretical model of dynamic, forward-looking optimization behavior that explains an individual's decision making over time, using observed data to estimate the primitive parameters (e.g., those describing preferences, constraints, and expectations) of the model, and determining the optimal decisions under alternative policy scenarios by using the estimated parameters and resolving the optimization problem. This is an extensive process that requires knowledge of economic theory, econometrics, data and institutions, and numerical methods and computer programming.

During the lengthy process of estimating the models described above, she has often taken another approach to understanding individual behavior. This second approach involves linearly approximating the functions that describe the value of different alternatives available to a decision-maker (e.g., visit a physician's office or not). The resulting dynamic demand and production equations that describe behaviors and outcomes can then be estimated as functions of observable characteristics.

Finally, she has approached problems in health economics and in turn extended the health economics literature by applying empirical methodologies from other fields. Examples include conditional density estimation (*Journal of Human Resources*, 2004), forward-looking price expectations formulations (*Review of Economics and Statistics*, 2007) and bootstrapped aggregating (Gilleskie and Zhang, 2009).

In conclusion, Professor Gilleskie has chosen a research route that involves complex modeling, coupled with complex data sets, in order to understand the dynamic decisions individuals make about their health over time. This approach to research demonstrates Professor Gilleskie's commitment to acquiring a deep understanding of behaviors based on solid economic *reasoning*.

A complete list of Professor Gilleskie's works and proper citations can be found on her website, http://www.unc.edu/~dgill/.

In 2004 the Nobel Memorial Prize in Economics was granted to Finn Kydland and Edward Prescott for their work on real business cycles (RBC). However, the re-

search of Dr. Neville I Francis, who was recently promoted to Associate Professor of Economics within our Department, suggests that real business cycle (RBC) research either needs a



new theory or better estimation procedures, or both. In his research Professor Francis and his co-authors find that labor responds negatively to an identified technology shock. This result is opposite that taught by the standard RBC theory and goes counter to what actually happens in reality. That is, if a positive technology shock were the impetus generating an economic boom, then we should not only see an accompanying increase in productive activity but there would also be an increase in labor demand, leading to more hiring by firms. To find the opposite result, very much challenges one of the pillars of RBC theory.

Professor Francis and his co-authors have tested the robustness of this finding under a variety of conditions. They have subjected the empirical model to various overidentifying restrictions and have presented competing theoretical models that can explain their empirical findings and capture asset price movements, the latter of which have been an Achilles Heel of recent macro models (Journal of Monetary Economics, 2005). In another set of papers they removed long-run trends from historical U.S. and U.K. data and by doing so their results demonstrate how the failure to account for key demographic shifts over time leads to clear errors-in-variables problems in empirical work. That is, the signs and shapes of impulse responses depend whether or not there are controls for these demographic shifts in the empirical model (Journal of Macroeconomics, 2009; Journal of Money Credit and Banking, 2009). They have even tested the model on other G7 countries (International Journal of Central Banking, 2005) and applied Bayesian techniques (Federal Reserve Bank of St. Louis Review, 2003; International Finance Discussion Papers 832, Washington: Board of Governors of the Federal Reserve System, 2008).

All these studies point to one (qualitative) main conclusion: labor input falls in response to a positive technology shock, or equivalently the odds ratio favors a fall in labor in the Bayesian setting. These results, therefore, cast serious doubts on the applicability of the standard RBC model in explaining economic fluctuations. To borrow a quote from one of Professor Francis' papers "the standard technology-driven RBC model appears to be dead."

However, one of Professor Francis' former students (Hamilton Fout) challenged the notion that agents in his models have complete knowledge of both the structural disturbances (including technology) and the structural parameters. Fout also questioned the kinds of inertial assumptions used to modify RBC theory in order to generate the abovementioned counterfactual labor finding. Coming out of their discussions Francis and Fout decided that incorporating learning into the model would not only limit agents' information sets in realistic ways but it would also allow them to do away with some of the inertial restrictions that were being used. With learning, model-agents are assumed to be ignorant of both the innovation processes that drive the models and the relevant structural coefficients that dictate the propagation of shocks. Francis and Fout discovered that when they employed Kalman Filter Learning within a Dynamic Stochastic General Equilibrium Model they developed a model that fit the data better and provided better out-of-sample diagnostics compared to its non-learning counterpart.

Aside from investigating the causes of real macroeconomic outcomes, Profes-

sor Francis' research program also includes monetary macroeconomics, where he studies the role of monetary policy in economic fluctuations. In a 2005 paper, Professor Francis and his co-author find that accounting for monetary policy in a state-space setting can explain away the price puzzle which has plagued the monetary policy literature the price puzzle is the finding that prices fall in the face of expansionary monetary policy, or vice versa (Journal of Business and Economic Statistics). Traditionally, monetarists have explained away the price puzzle by attributing its presence to the omission of a variable in the VAR that captures inflation expectations. He and his co-author use a model that has embedded in it some measure of inflation expectation.

In another research paper (2009) Professor Francis and his co-authors find that cities respond significantly different to monetary policy. They find that differences in population density, in the fraction of the unionized workforce, and local measures of fiscal policies are the main factors that explain the variation in impulse responses across cities. This is an important line of research because the mandate of the Federal Reserve is to set policy for the aggregate US economy and not favor any specific region(s). Documenting how such central policy actions do have asymmetric effects across cities and states may lead to revisions in policy setting, especially if certain cities predominantly gain at the expense of other cities.

While considered an empiricist, most of Professor Francis' papers are guided by theory that suggests to the reader ways in which the empirical results can be interpreted. His immediate research plan is to further explore monetary policymaking in high frequency data environment and to continue the research program on learning. He and Professor Fouts, who is now at Kansas State University, have plans to expand this program to model uncertainty in innovations to both technology (neutral and investment-specific) and monetary policy. They also plan to compare parameter estimations in the learning and non-learning environments. For example, preliminary results show that with learning we can relax the degrees of habit-in-consumption and investment-adjustment-costs in an impulse response matching exercise and improve the fit of the model.

A complete list of Professor Francis' works and proper citations can be found on his website, http://www.unc.edu/~nrfranci/.

The Minor in Entrepreneurship

During the summer of 2010, thirteen students enrolled in the Economics Department's Entrepreneurship Minor program spent eight weeks in Beijing, China. They participated in a variety of internships with foreign firms operating there. The goal of the internship program was to give them a first-hand experience with entrepreneurial organizations that are in the midst of developing their programs in an environment far different from that of the United States.

Beijing is, in many respects, a very attractive venue for a short and intensive internship of this sort. The participants were thrust into a variety of experiences that approximate the sort of disorienting situations in which entrepreneurs often find themselves. Entrepreneurship often involves setting sail into uncharted seas with little in the way of charts or maps. Entrepreneurs must often improvise on the spot to deal with unanticipated complications in a variety of settings.

Dropping students in the middle of Beijing certainly provided the disorienting environment and "trial-by-fire" atmosphere required. Housed in an international dormitory at Capital Normal University, the UNC students spent the first week in orientation,



including a crash course in the Chinese language, decoding Beijing's massive and complex public transportation system, ordering food in restaurants and purchasing necessities in shops and markets. At the end of the orientation period, each student was assigned a Chinese roommate, a student at Capital Normal University, who provided an alternative approach to life in

Beijing. The UNC students enthusiastically praised the roommate program as being helpful in immersing them more deeply into Chinese culture.

By the time their internships actually started, the UNC students had already augmented their self-confidence simply by gaining some mastery of an alien environment. They then worked in fields as diverse as public relations, emergency health care, and retail fresh fruit juice shops. Throughout, they approached the challenges of their jobs optimistically and enthusiastically. They had ample opportunity to bond with and support each other, and the internship gave them extra opportunities to visit landmarks and smaller places outside Beijing. They visited the Great Wall and the Terracotta Army in Xi'an. They toured the Forbidden City and the Summer Palace. They spent a weekend visiting people in a migrant village some distance from Beijing. All in all, the supplementary activities packed in



a wide range of experiences that provided texture to the internships themselves.

The Summer 2010 CEI Beijing interns were: Ben Booker, Lauren Brown, Cramer Price, Shivani Patel, Matt Lee, Kyle Krasicky, Taylor Hoggard, Miranda Garrison, Katherine Forman, Will Etheridge, Dylan Donley, Christie Ciputra, and Jing Chen. In its third year, the Beijing summer internship is quickly becoming a staple feature of UNC's undergraduate entrepreneurship training program.

Boone Turchi

Rev-Up Innovation

During the Spring 2010 semester, twenty students in **Professor Buck Goldstein's** first-year seminar embarked on a class project that resulted in the launching of a website centered on entrepreneurship and innovation in higher education.



Since its launch, Rev-Up Innovation has already seen an updated Wordpress theme, multiple content uploads, and a critique by the Huffington Post's Green section editor.

As it works to unite the entrepreneurial efforts of the UNC campus, Rev-Up Innovation will be collaborating with the Minor in Entrepreneurship and the Chancellor's Student Innovation Team.

However, Rev-Up Innovation (http://www.revupinnovation.com/) hopes to become a site that highlights entrepreneurship and innovation in higher education not only at UNC, but on a national level as well. It serves as a great resource and – in the case of 20 students – an instrumental learning tool.

Contributor: Mackenzie Thomas (UNC 2013)

Engines of Innovation

In an era plagued by world conflict, environmental disasters, inequality and disease, most see solutions resting in the hands of government and scientists. However, **Chancellor Holden Thorp** and **University Entrepreneur in Residence Buck Goldstein** think outside the box. To this duo, the answers to the world's biggest problems lie in the university setting.

In Engines of Innovation: The Entrepreneurial University in the Twenty-First Century, Thorp and Goldstein make the case for the pivotal role of research universities as agents of societal change. They argue that universities must use their vast intellectual and financial resources to confront global challenges such as climate change, extreme poverty, childhood diseases, and an impending worldwide shortage of clean water.

When asked why universities are uniquely positioned to take on the big problems that we face, Goldstein responded, "There is no comparable institution in our society to a research university. Collectively, they have over 250 billion dollars in endowment and the human capital inside their walls and nearby surpasses the value of their financial resources. Culturally, these institutions seek to improve the world. This impulse is what attracts many of the world's brightest lights to the life of an academic. When this vast reservoir of financial capital and human capital are placed within a culture that relishes an opportunity to attack the world's biggest problems, a huge opportunity exists. We believe that entrepreneurial thinking is, in many cases, the missing



ingredient which when added to what already exists can lead to research universities becoming true engines of innovation."

All royalties from book sales have been assigned by the authors to the University of North Carolina at Chapel Hill to support innovation and entrepreneurship. For more information, please go to http://uncpress.unc.edu/browse/book_detail?title_id=1792.

UNC-Chapel Hill's Department of Economics held a special ceremony on May 9th to honor 68 new graduates representing 25 majors who earned a minor in entrepreneurship. **Tom Darden**, CEO of Cherokee Investment Partners, was the keynote speaker.



This Fall the entrepreneurship minor enters its sixth year with a new class of 102 students representing majors from across the College of Arts and Sciences. This year the introductory course is being taught by a talented slate of entrepreneurs and professors which includes UNC alumnus Lowry Caudill, who is the retired worldwide Pres-

ident of Pharmaceutical Development for Cardinal Health; University Entrepreneur in Residence Buck Goldstein; Maryann Feldman the Heninger Distinguished Professor in the Department of Public Policy; and John Stewart, the director of the Minor in Entrepreneurship and Economics Professor.

In addition to learning from the experience of the course instructors, students were exposed to the personal stories and experiences of entrepreneurs from around the country. The list of speakers included Ruby Lerner, the founding Executive Director and President of the Creative Capital Foundation; Brett Smith, Founder and President of Counter Culture Coffee; Gary Mueller, Institutional Investor and founder of Securities Online; and Keith Jarrett, President and Founder of Thomson Financial Ventures.

Direct experience in the process of entrepreneurship is the cornerstone of the Minor in Entrepreneurship. It equips students with a real world experience where they can see first-hand the concepts they learned in class and add value to the entrepreneurial organization they are working for. The students interned throughout the United States and abroad, including thirteen students in Beijing, through the Minor's Study Abroad Program, as well as students in other parts of Asia, Africa, and Europe.

Contributor: Wyatt Bruton (UNC, 2011)



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A Letter from the Chair

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are beginning to show up along the roads but not on campus yet. It is the same sort of lively day—although in a different season—that I remember from my first visit. Things are happening on campus and in the Department. Let me tell you about some of them.

Each year, John Siegfried of Vanderbilt University tracks trends in undergraduate economics degrees using a sample of 281 degree granting institutions. Across all types of institutions, between 2003-4 and 2008-9, the number of bachelor degrees granted in Economics rose by a total of 8.3 percent or at an annual rate of 1.6 percent. For Ph.D. institutions, degree growth was more rapid—11.9 percent over five years or an annual growth rate of 2.3 percent.

At UNC-CH, growth in the major has occurred at a more rapid rate. For example, we currently have 925 first and second Economics majors. In fall 2003, we had 577. Over this seven year period, the number of our majors grew by 60 percent which is equivalent to an annual growth rate of 7 percent.

There are a number of things currently happening in the Department that are likely to interest you. First, the Department was awarded a Bowles Professorship to recruit a particularly distinguished environmental economist. The Bowles Professorships are University wide and were created to help UNC compete for the best and brightest minds in the United States. The target of this particular search is just such a person—someone with a Carolina background who is a nationally recognized expert in environmental policy. We hope to be able to report later this year that our efforts were successful. In the mean time, we remain hopeful. Being awarded a Bowles is an honor for the Department and shows that UNC is committed to our continued growth and development.

Another interesting development is a joint effort with the Honors Program to study the feasibility of an "honors track" to a degree in Economics. The Honors Program recently completed a self-study and concluded that it should offer more upper division honors course. The Department proposed to the Honors Program that we work together to develop a prototype majors program for honors students. We will begin offering upper division honors courses this year and hope to have our program fully operational in 2014. Please stay tuned for updates.

We have welcomed two new faculty members to the Department. Klara Peter is a demographer who was previously an Assistant Professor in the Department of Economics at the Andrew Young School of Policy Studies at Georgia State University. Professor Peter has written on international comparisons of tax policies, on labor and housing markets, on corruption, and on the returns to schooling. Professor Peter is also a fellow at the Carolina Population Center. We are very fortunate that Professor Peter agreed to join our Department.

We are likewise fortunate that Clement Joubert agreed to join us. Joubert just completed his doctoral studies at Penn under the direction of Professors Todd, Wolpin and Krueuger. Joubert's dissertation studies the labor supply and saving incentives created by privatized pension systems in Chile. Clement is a French citizen giving the Department another fluent French speaker with whom Pat Conway and I can practice.

There is sad personnel news as well. On July 1, we said goodbye to Oksana Leukhina who has moved to the University of Washington in Seattle. We are very sorry to lose Oksana from our macro group but glad to have a new friend in Seattle.

We are also sorry to report that, for family reasons, Ralph Byrns will leave the Department at the end of the academic year. During his time here, Ralph has infused Gardner Hall with his energy and good spirit, single-handedly building the undergraduate Economics Club into a dynamic organization that sponsors speakers and operates a text book market. Ralph also created the program in which our undergraduate majors work as teaching assistants in Econ 101.

Times are tough in North Carolina and at the University. At this time, Dean Gil has told departments to prepare for another round of budget cuts—our third serious set of cuts in three years. Nevertheless, the Department is fortunate to be hiring this year. We have two positions—a junior position targeted to open-economy macroeconomics and a senior position targeted to applied microeconomics and demography. While others are busy exploring Denver during the Allied Social Science Association Meetings, we will be interviewing prospective new members of our faculty. We are delighted to have these opportunities to grow our department.

For the first time in a decade, one can walk around campus without encountering power shovels and construction barriers. The renovations and new building that sprung from the 2000 State of North Carolina Bond issue is just about complete. There is no more Venable but in its place has risen the second part of the new science center. There are not the wide open campus spaces that were here 35 years ago but the campus is beautiful—albeit in a different way. Polk Place, McCorkle Place and the Arboretum remain much the same. But now there are little gardens everywhere. The landscape crew has done a wonderful job of making new gardens in the spaces that have appeared between the newly created buildings. Around every corner there is a surprise.

Perhaps it's time for a visit back to campus. If you come, stop by Gardner Hall and say hello.

Mike Salemi

Graduate Program News

We were pleased to welcome another very talented class to Chapel Hill at the beginning of August for the three week math camp. The 2010 class includes students from Turkey, Russia, China, Malaysia, India, Thailand as well as the United States. Once again, we offered a quantitative techniques course during the fall semester so that the econometrics, macroeconomics and microeconomics courses taught by Professors Renault, Hendricks, and Krishna could focus more on the economics.

Recent modifications in the organization of our undergraduate program have led to changes in the teaching schedules for many graduate students. The intermediate macroeconomics and microeconomics courses, which are required of our undergraduate majors, are now taught in lecture halls with 120 to 240 students and with weekly recitation sections led by graduate students. As a result, graduate students do more instruction as teaching assistants and less as course instructors.

This year, one of our new faculty, Prof. Clement Joubert, joined Prof. Donna Gilleskie as a co-director of our Job Placement Committee. Having faculty who recently experienced the supply side of the market for Economics PhD provides students with a valuable perspective on how the market works. The job market webpage available from Donna's website includes

suggestions that many of you provided shortly after your own job market experiences or later after you had been interviewing job candidates. If you have additional suggestions or insights, please contact Donna (donna_gilleskie@unc.edu).

As always, the life of our graduate students is more than just work. Faculty and graduate students enjoyed the annual North Carolina Barbeque at the beginning of the school year along with a Friday afternoon Happy Hour and coffee get-togethers in the lounge.

We always enjoy seeing our alums back in Chapel Hill and hope that you will stop by the department if you are visiting the University.



Best wishes for the New Year.

Helen Tauchen

Director of Graduate Studies

2010 Entering Class

Tetyana Babina, University of Alabama Jason Brent, Guilford College Roberto Gonzalez, Florida Intl. Univ. Laura Jackson, Bentley College Benjamin Johnson, Elizabethtown College Benjamin Johnson, Elizabethtown College Derya Koleoglu, Istanbul Bilgi University Yiyi Liu, N. China Inst. of Science & Tech Anne MacFarlane, William and Mary Melati Nungsari, Knox College Pragya Singh, Indian Statistical Institute Wasin Siwasarit, Thammasat University Daniel Soques, UNC-Wilmington Brian Sullivan, Canisius College Ahmet Usta, Uludag University Huan Zhou, Peking University

2009-10 Master's Recipients

Thomas Elworth
Alfonso Finot
Dimitris Katsoridas
Ozge Savascin
Serkan Yuksel
Chi-Hung Liao
Julian Perez-Amaya

Ph.D. student, Michael Darden received a Dissertation Completion Fellowship through the university for the 2010-11 academic year. Michael had a paper accepted for presentation at the 2nd Annual Health Econometrics Workshop, held in October at the Ross School of Business, University of Michigan. His paper "Smoking, Expectations, and Health: A Dynamic Stochastic Model of Smoking Behavior over the Life Course" was one of 9 selected papers.

2009-2010 Ph.D. Recipients and Placements

Basak Altan, "Essays in Durable Goods Monopolies" (Advisor: Gary Biglaiser); Ozyegin University

Suzette Baker, "Essays in the Microeconomics of Medical Specialization" (Advisor: Gary Biglaiser); Washington University (visiting scholar)

Katherine Cloud, "A Study of the Dynamic Relationships between Depression, Treatment, and Work Behavior" (Advisor: Donna Gilleskie); University of Georgia (visiting)

Lauren Heller, "The Relationship between Location and Early Childhood Health Choices among Urban Residents of Bangladesh" (Advisor: John Akin); Berry College

Mai Noguchi Hubbard, "Effects of Maternal Employment and Child Care on the Health of Young Children" (Advisor: Donna Gilleskie); Mathematica Policy Inc.

Justin Joffrion, "Essays on Incentives in Rank-Order Tournaments" (Advisor: Sergio Parreiras); Department of Defense

Zafar Nazarov, "Unemployment Duration, Part-Time versus Full-Time Reemployment and Wages" (Advisor: David Guilkey); RAND

Silviya Nikolova, "Health Insurance Transitions of SCHIP-Eligible Children in Response to Higher Public Premiums" (Advisor: Tom Mroz); University of Manchester

Jeremy Petranka, "Essays on the Theory of Conflict" (Advisor: Gary Biglaiser); Indiana University (visiting)

Serban Ranca, "Managerial Workaholism, Competition and Incentives" (Advisor: Sergio Parreiras); East Carolina University (visiting)

Kathryn Rouse, "High School Leadership, Educational Attainment and Post-Schooling Earnings" (Advisor: Tom Mroz); Elon University

Marcelo Silva, "Accounting for Business Cycles in Emerging Market Economies" (Advisor: Michael Salemi); Federal University of Pernambuco

Katherine Theyson, "The Determinants and Effects of the Off-Farm Employment Decision: A Study of the Northern Ecuadorian Amazon" (Co-Advisors: Richard Bilsborrow and Boone Turchi); University of the South

Denise Whalen, "Essays on Disability and Employment" (Advisor: Donna Gilleskie); Mathematica Policy Inc.

Undergraduate News

From the Director of Undergraduate Studies



We are now up to 925 majors, an increase of 7.4% over last year's 861, and all the signals point to even greater numbers in the future. Intermediate micro for Fall 2010 has filled all 246 seats in the Global

Education Center 1015 lecture hall twice, reaching a total enrollment of 492 students for the semester.

Starting this year, we are teaching intermediate micro, intermediate macro, and statistics in lecture halls. This is partly in response to growth in the major, but the more important consideration is our effort to improve the courses. Moving to lecture halls should promote more uniformity across course sections, and it allows us to put our best instructors in front of students.

Curriculum changes at the College level are big news for our undergraduates. The Experiential Education requirement mandates undergraduate research, fieldwork, or engagement in a creative process as a supplement to classwork. An even bigger change for some students is the requirement that students entering Carolina complete their studies in eight semesters. The five-year plan and the six-year plan are no longer options.

Over the past year, we have moved to the ConnectCarolina registration system. The old system that replaced pieces of paper in Gardner 211 has itself been replaced by software that lets students put courses in their "shopping cart" to get ready to register. The faculty, staff, and students have spent the year learning the new system. A somewhat surprising bit of good news is that, even in these difficult economic times, our graduates seem to be doing very well. We get good reports from Carolina economics majors who leave here and take on the challenges of the outside world. If you are an alum, we would love to hear from you via http://www.unc.edu/depts/econ/alumni/feedback.htm.

William R. Parke
Director, Undergraduate Studies

2010 HONORS STUDENTS

Sixteen of our majors successfully completed the Senior Honors Program this past year. The program consisted of completing two seminar courses (ECON 691H and 692H), completing the honors thesis under the direction of a faculty advisor, and passing an oral defense. This past year the honors program was directed by Professor Rita A. Balaban. This year we had two students who received the award for Best Honors Thesis: Ying Hua and James Waters who worked under the supervision of Professors Neville Francis and Patrick Conway, respectively

Highest Honors

John-Mark Didier Dalton, "Revitalizing the U.S. Energy Sector Through Optimizing Public Investment"

William Dworsky, "An Urge to Recover the Status Quo? Valuation for Repurchasing Under the Endowment Effect"

Matthew Garza, "Labor Market Returns to Community College Education"

Thomas Ginn, "The Effects of a Population's Spatial Distribution on Growth and Poverty Reduction"

Alex Hardee, "How Does Environmental Performance Affect Firm Profitability?"

Ying Hua, "Institutional Investors and the Informational Efficiency of Prices, the Case of China"

Eric Stam, "Economic Methodology and Emergent Outcomes"

James Waters, "The Effects of Free Trade Zones on Secondary School Enrollment Rates in Nicaragua from 1997-2007"

Honors

Sarah Arnold, "The Long-term Returns to Breastfeeding: The Relationship Between Duration of Breastfeeding and Education"

Elinor Benami, "An Empirical Analysis of Sustainable Energy Portfolio Standard Effectiveness"

Ray Chou, "The Impact of Government Job Training Programs on the Employment of Low Skilled Labor"

Rishabh Kirpalani, "An In-Depth Look into Intergenerational Flows"

Jane Murchison, "The Relationship Between Trends in Charitable Giving and Societal Perceptions of Neediness"

Daniel Smith, "The Effects of Public and Private Research and Development Spending on Economic Growth"

Robert Tedeschi, "The Free Agent Market for Lemons"

Lauren Williams, "Investigating the Social Mechanisms and Regional Characteristics that Enable Entrepreneurship in the Dan River Region"

Federal Reserve Challenge

The Federal Reserve Challenge Team won the Charlotte Branch Competition for a second consecutive year in November 2008 and in doing so advanced to the District Championship in Richmond. Team participants included Jonathan Brice, Samuel Brice, James David, Ivan Kirov, Mackenzie Linvard, and Andrew Owens.

Under the guidance of Professor Michael Aguilar, the organization of the team has expanded dramatically as they work toward continued excellence and the development of the next generation of Challenge participants. There are now two types of membership: the first consists of members who participate in the competitions; and the second consists of those who attend the open weekly meetings to discuss macroeconomic events. At each meeting a student introduces a topic and lively discussion inevitably follows.



The Team also participated in the "Day at the Fed" conference hosted by the Richmond branch. This was a full day conference geared toward undergrads interested in monetary policy and possible careers at the Fed. There were presentations by several staff economists as well as President Jeffrey M. Lacker, with whom some of members spoke individually.

Undergraduate Prize

Special Department recognition was given to **James Joseph Waters** who was awarded the Undergraduate Prize in Economics, presented annually to the top graduating economics major.

Phi Beta Kappa 2009/2010

In 2009-2010, the quality of our students remained high and 27 were inducted into Phi Beta Kappa.

David Alexandre Katie Beam David Bellard Caroline Boneparth Albert Choi **Ryan Collins** Eleanor Cooper Dori Cross Wesley Crouse Matthew Fraser Yevgeniy Grechka Keith Grose Courtney Johnson Alexander Kilkka Nitin Krishnan Joshua Maclaga Travis McElveen Laura Newman Daven Quinn **Daniel Smith** Eric Stam Robert Tedeschi Adam Tosh Jonathan Tugman Andrew Wasserman Amy Wilson Sofia Wilson

Omicron Delta Epsilon

ODE was led this past year by President Maciej Misztal and Faculty Advisor, Professor William Parke. The annual induction was held on April 14, 2010, and well attended by inductees, family members and friends. Membership is open to outstanding junior and senior economics majors and economics graduate students. Only top students are invited into membership.

This year, Dr. John Akin was the recipient of the ODE Outstanding Economics Professor Award. John Akin, Austin H. Carr Distinguished Professor, is a specialist in Health Economics at UNC-Chapel Hill. Since receiving his Ph.D. in Economics from the University of Michigan in 1971, he has organized his research agenda around the design and evalua-

tion of public programs in the education, population, and health areas. He has published over seventy articles as well as several books. Dr. Akin is perhaps best known for his work on the financing of health systems in developing countries, which has affected the public policies of almost every developing nation in the world.

Dr. Akin has done extensive service at national, university and developmental levels, including testifying before Congress, helping to organize the annual Technical Session of the World Health Organization, presenting at the plenary lecture at the World Federation of Public Health Associations, serving as a trustee of the Southern Economics Association, and serving as Chair of the UNC Economics Department (2000-2010).

2010 Inductees

Mikhail M. Belikov David D. Bellard Michael U. Brady Marvin J. Brice Brendan A. Cappiello Albert Y. Choi Kenneth Chuk Sarah A. Core Collin M. Gallagher Colleen W. Gearns Julian J. Groover Keith M. Grose Katherine S. Haigwood Matthew H. Harris Ashley B. Howard Lindsay E. Jacques Courtney H. Johnson Ivan J. Kirov Jessica L. Koonz Thomas J. Lunney

Matthew R. Maloney Travis J. McElveen Meagan C. McGee Saket Nigam Jacob S. Paysour Walter A. Perry Thomas G. Price Heidi D. Ragland Brian T. Rooks Aarti K. Sarin Ozge Savascin Yash A. Shah Daniel P. Smith George H. Stevenson Sarah K. Summers Casey L. Turner Anna K. Weaver Davis C. Willingham Zara G. Wittirani Stephen J. Wojtkun

Carolina Economics Club

The spring 2010 semester featured a variety of events catered to economics and non-economics majors alike. In early February, CEC brought Dr. Stephan Thurman, International Economist at the Bureau of Economic and Business Affairs, to campus to speak on the role an economist plays at the Department of State. At a luncheon, he laid out the kind of work an entry-level economics graduate would perform and answered student questions. Later in the evening, Dr. Thurman discussed the process of turning raw data and policy options into coherent recommendations for a non-technical audience.

With Valentine's Day came the inevitable Ralph Byrns lecture regarding the economics of love. A student favorite, he delved into issues of Behavioral Economics in dating as well as some outlandish personal anecdotes. A few weeks later, CEC Co-President Alex Hardee was featured in a student panel on the ethics of eating. Bringing an economics view to the diverse panel, Alex argued for separating economic costs from accounting costs and realizing the long-term pitfalls of cheap fast-food with regards to sustainability. Additionally, he voiced the importance for choice in student eating options and the major benefits that one can accrue from giving up meat just once a week.

In March, CEC turned to Dr. Mac Mc-Corkle and Christoffer O'Connor to sort out the arguments surrounding the national health reform debate. Specifically, they tackled efficiency issues of government-sponsored coverage vs. market solutions. A week later, CEC hosted a panel addressing graduate school options for students with a B.A. in Economics. Representatives from the economics, public policy, and public health departments were present.

This year, CEC looks to continue to provide diverse educational and post-graduation centered events to assist economics majors in determining career goals. CEC has served as an intermediary for employers trying to reach out to Econ majors who are interested in joining the workforce upon graduation during this full-time recruiting season. CEC hopes to bring Carolina alumni to campus this semester who can speak to the knowledge and advantages of a degree in economics. Beyond the scope of CEC activities, the Carolina Union screened the new Freakonomics documentary on October 14th with advisor Ralph Byrns leading a discussion afterwards. Currently, the executive board is planning a stock market challenge, starting in November, with a cash prize to stimulate interest among a wide array of students. Finally, the CEC will be co-sponsoring best-selling author, Dan Ariely's visit to campus on November 1st to discuss Behavioral Economics and his new book, The Upside of Irrationality.

Matt Clark and Gordon Toon

Life After Carolina

Immediately after graduating from UNC in 2007, I spent a summer working at a private equity firm to deepen my understanding of financial markets. Prof. Ralph Byrn's class on Financial Markets served as great preparation for the role. Living through the early stages of the financial crisis – including the first wave of hedge fund meltdowns in August, 2007 – gave a hard edge to Prof. Byrn's classroom lessons.

That fall, I began the MBA program at Harvard Business School. The "Required Curriculum," HBS's first year of preassigned classes, is a sort of bootcamp for capitalists. The academic experience is grounded in case discussions, and students probably talk 80% of the time in class. I spent my summer after the first year working at McKinsey & Company in their Atlanta office. I was staffed at a large metal manufacturer with just one other strategy consultant. We had six weeks to improve processes on the plant floor. The company faced legacy union problems, employee apathy, and capital investment questions. I learned how to answer problems fast.

My second year at Harvard, I began to hone in on entrepreneurship. I studied how to start high growth ventures and explored how the digital marketing landscape was evolving. I published several research pieces with the Chair of the Marketing Department at HBS, Sunil Gupta. And after graduating, I launched a business in digital marketing. The company is named Three Ships Media, and it's grown quickly to 20 people in our first year. We are a digital agency that helps connect companies with the customers they want to have. Our approach is highly data-driven and our clients include AT&T, Bayer, American Airlines, Deloitte, Harrah's, Entergy, and Verizon.

I believe at least \$30 billion in traditional marketing needs to shift to digital marketing. In the years to come, effective digital marketing will become a central element of every company's marketing strategy. Eric Schmidt has called advertising the last bastion of unaccountable spending in corporate America. Our goal is to help companies narrow the gap between their most effective and least effective activities so they can compete and win.

Culturally, our goal is to create a little "slice of Silicon Valley" in Raleigh. Our office is downtown, and we've hired a number of UNC grads. (And we want more!) Check it out at threeshipsmedia.com.



Zach Clayton (2007)



What's the best way to find, survey, and draw blood from 2,500 Kenyan young adults who participated in an education program seven years ago? My job, as an Evaluation Coordinator with

Innovations for Poverty Action (IPA), is to find the answer.

I graduated from Carolina with a degree in economics and mathematics in May 2010. A month later, I moved to Busia, Kenya to work with Esther Duflo, the founder of MIT's Jameel Poverty Action Lab (JPAL), and Pascaline Dupas, an economics professor at UCLA, managing their project on education and HIV/AIDS with 33 Kenyan staff and a seven-figure budget.

The project started in 2003 when schools across western Kenya were randomly assigned to one of four groups: providing students with free uniforms, improving the quality of sex education with a teacher seminar, both of these interventions, or neither.

As economists, our goal is to determine causation in an infinitely complex world. If we find a difference between the groups, can we conclude that our treatment was responsible? How can we be sure there is not another, perhaps unobservable, factor like parental influence or favorable school location?

The key to determining causation is the random assignment; with a large enough sample, we assume that the unobservable characteristics of each group are the same. When we follow-up with a large proportion, we can compare the treatments to the control - students who did not receive either intervention - to measure our impact against what would have happened without the program.

This methodology, pioneered in the pharmaceutical industry, is valued by IPA and JPAL to evaluate programs on everything from agriculture to insurance to corruption around the world. The results are then published in economic journals, disseminated to policymakers, and used to scale-up programs with proven impacts.

On a daily basis, I am responsible for the details – insuring the team is organized efficiently and has the necessary supplies, the data is accurately entered, the rules governing human research subjects are followed, etc. I also travel with the team to the field, tagging along as they ask community members about our respondents, conduct the survey, and direct them to our mobile clinics to give a blood sample. The analytical mindset instilled at Carolina, experience with STATA, and familiarity with economic research prove invaluable every day.

For an aspiring economist like me, the experience as an Evaluation Coordinator is ideal. I am learning management and research practices from leading economists with invaluable knowledge and experience. Yet this experience has taught me just as much outside of work. Whether it's making friends during the Arsenal "football" game, sitting down for a Swahili lesson, or discussing Kenya's persistent corruption over lunch with co-workers, I am learning about Kenyan culture and sharing my perspective with a variety of people. Their different way of life and the widespread poverty inspire me to reflect often on my outlook and opportunities. This rewarding introspection and my work at IPA form an ideal, enjoyable path that is shaping my personal and professional future.

Thomas Ginn (2010)

All-USA College Academic Team

Jimmy Waters, a May 2010 graduate and Morehead-Cain scholar who majored in economics and mathematical decision science, was among 20 students selected nationally to the first team of USA Today's All-USA Col-



lege Academic Team. The All-USA team honors full-time undergraduates who not only excel academically but also extend their intellectual abilities beyond the classroom to benefit society. Criteria include grades, academic rigor, leadership, activities and an essay by the student describing his or her most outstanding intellectual endeavor while in college. Waters received a trophy and \$2500 from USA Today.

Mayo Undergraduate Research Fund

Undergraduate research funds are available through the Herbert B. Mayo Undergraduate Research Fund through the Arts and Sciences Foundation. These funds are used to support undergraduate research by covering costs of data collection, travel necessary for undergraduate research, computer software, etc. Interested students should contact Professor Bill Parke, 107 Gardner, parke@email.unc.edu.

Faculty and Staff Mews

New Faculty

The Department of Economics is very pleased to welcome two new faculty members, Professors Clement Joubert and Klara Peter, who joined the Department at the rank of Assistant Professor in July 2010.

Professor Clement Joubert completed his Ph.D. at the University of Pennsylvania in



May 2010. His dissertation research studies pension design in a privatized pension system. He is particularly interested in how the rules of the system

affect labor market participation and private savings decisions.

As one of the first countries to adopt the individual account pension system, the linked administrative and self-reported longitudinal data from Chile offer a unique opportunity to examine the issue. Professor Joubert estimates a structural dynamic model of a couple's work and savings decisions and uses the model to determine the effects of alternative pension contribution rules, including an ex-ante estimation of a more generous government safety net reform passed in 2008. Based on the Chilean data, he finds that one adjustment to an increase in required pension contributions is a switch to the informal labor market where such contribution requirements are ignored.

Professor Joubert plans to extend this research to other developing nations in Eastern Europe and Latin America. Many interesting questions stem out of Professor Joubert's research including how to design a social safety net without discouraging pension contributions and how pension systems affect career choices. Currently he is working directly with Chile's government to evaluate their reforms in light of gender specific outcomes.

Professor Joubert has a B.S. and a M.S. in Management from Hautes Etudes Commerciales in Paris. His primary research fields include Labor Economics, Pension Economics and Applied Econometrics. An avid fan of the outdoors, Professor Joubert enjoys hiking and rock climbing.

Professor Klara Sabirianova Peter joined our faculty this summer as an Assistant Pro-

fessor. She is a labor economist whose research focuses on the behavioral responses of individuals and firms to public policies in a weak institutional



environment within transitional economies. In her research she looks at bribery, corruption, contract violation, inequality, tax evasion and informal economic activities in the transition economies of Africa, Asia, and Eastern Europe.

Professor Peter also holds an appointment as a Faculty Fellow at the Carolina Population Center. She is no stranger to the Pop Center's data files, some of which she has been using in her research for over 15 years. The benefit of being a Fellow, however, is that she is able to review original files and design new surveys which will help her expand the horizons of her research. Professor Peter also serves as a research fellow at the Institute for the Study of Labor (IZA) in Bonn, Germany, and she is a research af-

2009-10 Teaching Awards

Jae-Yeong Song/Chunuk Park Award for Excellence In Graduate Teaching:





Vijay Krishna

Outstanding Teaching Fellow:



Racha Moussa

Vijay Bhagavan Award for the Outstanding Econ 101 Teaching Assistant:



Christopher Cronin

Excellence in Undergraduate Teaching:



Matt Harris



Best TA in a Graduate Level Course: Stephen Goldberger

Rita Balaban

filiate with the Centre for Economic Policy Research in London.

Prior to her arrival at UNC, Professor Peter was an Assistant Professor of Economics in the Andrew Young School of Policy Studies at Georgia State University, where she was promoted to an Associate Professor shortly before her departure. Earlier in her career she held a faculty position and served as Director for Russia/CIS Programs at the William Davidson Institute at the University of Michigan Business School and she also served on the faculty in the School of Economics at Urals State University in Russia.

Professor Peter, who was raised in Russia, received her M.A. in Economics and Political Economy from Urals State University and a Ph.D. from the Russian Academy of Sciences. She first came to the United States under a U.S. Information Agency Scholarship in 1994, but returned to Russia afterwards before coming back to complete a Ph.D. in Economics at the University of Kentucky.

Professor Peter enjoys traveling and experiencing other cultures. She resides in Chapel Hill with her husband Jeffrey and her son Anton. They are happy to be back in a college town, especially one as diverse as Chapel Hill.

- The Department wishes to recognize the promotion of **Donna B. Gilleskie** to Full Professor and **Neville Francis** to Associate Professor. Congratulations!
- Eric Ghysels was nominated Wim Duisenberg Fellow at the European Central Bank, named after the first president of the ECB. While visiting the ECB he will continue his research on MIDAS regression methods to central bank operations.
- A. Ronald Gallant, Emeritus Distinguished Professor, recently spent time at the National Center of Atmospheric Research, Boulder, Colorado, where he was studying climate models and the applicability of econometric methods to these models with Doug Nychka. Professor Gallant will spend the first semester of this academic year at Stanford studying the econometrics of dynamic games with unobservable state variables with Han Hong, and will teach computational econometrics at NYU the second semester. In the intervals between these visits he will be spending his time at UNC.
- The Department has two visitors for the current academic year. Marine Carrasco, who is on sabbatical from the University of Montreal (Canada), is serving as a Visiting Associate Professor. Josef Perktold is serving as a Visiting Lecturer and is teaching courses in financial markets and intermediate micro.
- Jonathan Hill was invited last spring and again in October for one week research visits to Concordia University and CIREQ (a research consortium in Montreal). Jonathan also presented papers during his visits
- Evan W. Anderson, who was an Assistant Professor in our Department from 1998-2005, recently achieved tenure at Northern Illinois University.
- Geetha Vaidyanathan received an \$8000 Ueltschi Course Development Grant from the Apples Service-Learning Program. Geetha used the money to restructure her course in Economic Development into a service learning course. As part of the course requirement, students are required to volunteer with various organizations serving international economic development issues.

Akin Henored for Leadership and Service

John Akin, distinguished professor and former Chair of the Department of Economics, received the William F.



Little Distinguished Service Award for "outstanding leadership" in service to the College of Arts and Sciences. The award, presented by the Arts and Sciences Foundation at its board meeting in April, is named for the organization's late founder. Little was a UNC chemist and University leader who also helped develop Research Triangle Park.

In conferring the honor, Dean Karen Gil and Board Chair James Alexandre gave Akin a resolution heralding his "invaluable leadership and service to the department and the Dean's Office in support of faculty, students and academic programs across the College."

The resolution notes that Akin has served on the Dean's Advisory Committee, overseen the department of economics for a decade, and supported the development of the academic minor in entrepreneurship and a unique joint degree program with the National University of Singapore.

"[He] has taught and mentored hundreds of undergraduate and graduate students," the resolution continues, "many of whom have been inspired to become health economists to address the major public-health finance challenges of our time."

The Austin H. Carr Distinguished Professor of Economics, Akin has been

a member of the faculty for 37 years.

He created and developed the interdisciplinary Ph.D. specialization in health economics, which trains UNC students to analyze public-health trends and finance needs in developing countries throughout the world and which engages UNC faculty in vital teaching and research all over the world.

Akin is the second recipient of the William F. Little Award. George Lensing, Jr., the Mann Family Distinguished Professor of English and Comparative Literature and former director of the Office of Distinguished Scholarships, received the honor last year.

Reprinted from the UNC College of Arts and Sciences website.

Alumni News

Undergraduate Alumni News

• Shilpi Somaya Gowda (1992) recently published her debut novel. Secret Daughter is the story of two distinct families – one in the slums of India and the other in privileged Northern California – who are joined by an adopted child and the universal themes of culture, identity and the true meaning of family. Reviewers have described it as "pitch-perfect literary fiction" written with "compassion and uncanny perception." Shilpi recently returned to Chapel Hill to discuss her inspiration for the story, which came during one of her summer internships as a Morehead Scholar. To read an excerpt

and reviews, visit www.shilpigowda.com

- Peter Blair Henry (1991) became Dean of New York University's Leonard N. Stern School of Business in January 2010. He is also a Research Associate at the National Bureau of Economic Research, a Nonresident Senior Fellow of the Brookings Institution, and a member of the Council on Foreign Relations.
- Ronnie Thompson (1973), Broker at Thompson Realty, is serving as the 2010 President of the N.C. Real Estate Educational Foundation. The Foundation promotes diverse education among the 38,000 member association in North Carolina.

Graduate Alumni News

- Sumana Dhar (1991) recently left the World Bank after working there as an Economist for almost 20 years. She is currently living in Kolkata, India.
- Alicia M. Robb (2000) is a Research Fellow with the Kauffman Foundation.
 In mid-October, President Barack Obama mentioned Alicia's research regarding the capital gap for women-owned businesses in his speech at the 2010 Fortune Most Powerful Women Summit. Within the same week, Alicia's research regarding financing for American start-ups was cited in The Economist.
- Francis E. Warnock (1999) is the Paul M.
 Hammaker Associate Professor of Business Administration at the University of Virginia's Darden School of Business. He also serves as an Adjunct Senior Fellow for International Finance on the Council on Foreign Relations.

In Memorian

John W. Kendrick, a pioneering economist in productivity measurement and economic accounting, died on November 17, 2009, at the age of 92. Kendrick received a bachelor's degree in history and a master's degree in economics from the University of North Carolina at Chapel Hill. In 1955 he received a doctorate from George Washington University. He was a professor of economics at George Washington University from 1955 until his retirement in 1988.

Earlier in his career, Kendrick made important technical contributions to the national economic accounts when he was an employee of the Office of Business Economics, which was the predecessor to the Bureau of Economic Analysis. The ideas developed by Kendrick and other proponents of economic accounting are embodied in a report by the Commission on the Measurement of Economic Performance and Social Progress, chaired by Joseph Stiglitz, which explores the adequacy of gross domestic product as an indicator of economic performance and social progress.

Kendrick was among the first to develop empirical estimates of broader measures of investment. In *The Formation and Stocks of Total Capital* (1976), he expanded the idea of tangible investment to include durable goods owned by government and consumers, and he defined intangible investment to include investment in research and development, education and training, health, and mobility. In a 1979 article in the *Review of Income and Wealth*, Kendrick made a case for expanded U.S. national economic accounts along these lines. He produced estimates for the value of time spent in unpaid household work, volunteer labor, school work, and frictional unemployment. He also imputed rentals to household capital, institutional capital, and government capital. Kendrick estimated that including these imputations would have boosted gross national product more than 60 percent in 1973.

In addition, Kendrick was considered a leader in the field of productivity measurement and growth accounting. In a 1951 article in the *Survey of Current Business*, Kendrick and Carl Jones measured "composite productivity" in the farm sector by taking into account capital as well as labor inputs. This was one of the first empirical uses of a measure that has since been termed "total factor productivity" or "multifactor productivity." In 1961, Kendrick, with the help of Maude R. Pech, wrote Productivity Trends in the United States in which he discussed the effect of productivity and investment in intangible capital on economic growth. Solomon Fabricant, then director of research of the National Bureau of Economic Research (NBER), considered this work "the most comprehensive survey of productivity trends in the United States ever made."

Reprinted from the February 2010 volume of the Survey of Current Business, which is produced by the BEA.

Let Us Hear From You

The Economics Department welcomes news from its graduates. Please use the form at http://www.unc.edu/depts/econ/alumni/feedback. htm to drop us a line and let us know how you are doing. If you prefer, you may fax the information to 919-966-4986. Please include in the fax, your name, address, year graduated, and degree, along with employment, family, and other interesting information to pass on to classmates in the next newsletter.

Yes, I want to give to Economics

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Young Alumni Levels: 1998 to 2002 – \$500; 2003 to 2007 – \$250

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