

Hello from Carolina! These are glorious days to be on campus. I suspect you remember fondly this time of year -- leaves changing color, Homecoming football game, temperature dropping a bit, and of course the Carolina-blue sky. There's a spring in everyone's step, faculty and students alike, because there is just so much to do, see and experience. Some things never change!

And some things do change. I'm the new chair of the Department of Economics, succeeding Michael Salemi. Mike had a productive period in this position – be sure to thank him when next you see him – and I'll work to maintain that productivity.

You'll be impressed, in big things and small, by what our very creative students have done. We have undergraduates undertaking original research in India financed by Senior Undergraduate Research Fellowships. Our Entrepreneurship Minor facilitates undergraduate initiatives in North Carolina, New York City and

Beijing. Our Econ Club hosted a faculty discussion of election choices for a campus-wide audience; the speakers managed to touch on more economic topics in an hour than the Presidential candidates managed in three debates! (For those worried about liberal bias in academia, not to fear – our panel turned out to be quite conservative on the issues.) Our graduate students are making new discoveries in fields as diverse as textbook sales, macro forecasting and national austerity policies.

Our faculty members, as you remember, are just flat-out excellent. When you return you'll find many familiar faces. Professors Benavie, Wilde and Black have officially retired, but you still find them in the classroom – their love for teaching keeps them young! We've added two new faculty members this year: Professor Andrew Yates, an environmental economist, and Professor Toan Phan, an international macroeconomist. We are pleased to have these new and returning colleagues among us, and hope you'll have a chance to meet them.

Success creates its own tensions. We currently have 1050 students who have declared Economics as their major; that puts us just behind Biology and Psychology among majors on campus, and first among the social sciences. Being popular is always gratifying, but our class sizes have been rising: we're serving these students with fewer faculty and graduate TAs than we had in 1990 when we had half as many majors. Cozy classes have become a fond memory, but we could not see excluding anyone wishing to study economics.

Pop quiz: what are the two most important innovations in undergraduate education nationwide in the last 20 years? Hint: they both came from Carolina. The first is the Carolina Covenant, and we in Economics can't take credit for that. The second is the Entrepreneurship Minor, and that has been our baby from the beginning. I can't overstate the importance of that innovation to the many budding businesspeople and social entrepreneurs on campus. Students in the Minor are receiving a genuinely new, hands-on, model of undergraduate education, and we're proud to facilitate that.

There's much more happening at Carolina Economics, and I'd love to go on – but our newsletter editor has me on a short leash. Let me summarize in this way. The intellectual life at Carolina is vibrant, and the Economics Department is a major contributor to that. The innovations, the one-on-one coaching, the attention to each student, is creating the next generation of Carolina leaders. The state budget situation remains tight, and our funding for these innovations is largely derived from the contributions of our graduates and friends in the Carolina community. Entrepreneurship, the Fed Challenge, undergraduate research fellowships, grad-student travel – all are wonderful educational opportunities funded through private contributions.

Should you be in a position to do so, I hope that you too will consider giving back to Carolina Economics. This next generation is bright and ambitious, and we want them to have the most inspiring education possible. Please partner with us in this.

Best Wishes,
Patrick Conway

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## Graduate Program News



Helen Tauchen
Director of Graduate Studies

This fall we once again welcomed an excellent incoming class with students arriving from many parts of the world. As our alums remember well, the first year of the graduate program is very intense, and the new students have been spending long hours working together in the 4th floor lounge. As we welcomed the incoming class we also said good-bye to our recent graduates. We want to congratulate them and commend them for their innovative research work. The UNC Graduate School also recognizes the accomplishments of its graduates across all disciplines on campus. During the spring commencement weekend, the Graduate School hosts a ceremony at which each PhD recipient's advisor and the provost bestow the doctoral hood.

The speaker at this year's Hooding Ceremony was Stanford Professor Mark Levoy, who received his PhD in computer science from the University of North Carolina in 1989. One of the most interesting aspects of his speech was the description of the changes in doctoral education since its inception in the Middle Ages. When academic degrees were first introduced, the major Western European universities had faculties in the professional fields of theology, medicine, and law along with faculty in the humanities and natural sciences. The latter were referred to as the Faculty of Philosophy in most Germanic and Nordic universities and the Faculty of Arts throughout the remainder of Western Europe. The Master of Arts and Doctor of Philosophy degrees originate from the names of these faculties.

The usage and meaning of the doctorate degree varied across Western Europe during the medieval period and has changed markedly since that time. The PhD was initially awarded for coursework and advanced scholarship as indicated by a thorough understanding of the discipline. Original research did not become an integral part of the degree until the 19th century educational reforms in Germany. Indeed, the concept of a university as a research institution with faculty engaged in both teaching and research did not emerge until the 19th century when the University of Berlin was reorganized as Humboldt University. Johns Hopkins pioneered the concept of the modern research university in the United States. Following the Land Grant Acts, U.S. universities began to emphasize research particularly in agriculture.

In the United States, Yale University was the first institution to confer the doctorate degree with three awarded in 1861. One of the degrees was in classics with a six page dissertation in Latin, one in physics with a dissertation on the velocity and direction of meteors, and one in philosophy with a dissertation thought to be a review of an English dictionary of etymology. At this time, not even the titles of dissertations were necessarily archived in university records. Historians and librarians have hence searched academic journals for the work of early PhD recipients and then published papers offering evidence of the likely dissertation topics.

Much has changed in the 150 years since Yale conferred three degrees.

In 2010, U.S. universities graduated 48,069 PhDs including 1,072 in Economics. In addition, the full texts of PhD dissertations are now available worldwide shortly after electronic submission. (Note that the names and dissertation topics of the UNC Economics PhD recipients are included in the newsletter.)

Although our students work hard on homework sets, field papers, and dissertation research, they still find some time for other activities. On August 16th, a team of Duke economics graduate students traveled to Woolen Gym for the First Annual UNC-Duke Econ Clash of the Century. To no one's surprise, UNC dominated the contest winning four of five games. As is appropriate, the Woollen Gymnasium Wikipedia web site chronicles the event. Our graduate students have also excelled at soccer. One of the many benefits of having students from other departments enrolled in our first year courses is the larger pool of potential team members. This year's soccer team composed of players from economics, statistics, and finance showed their prowess by winning the Men's Indoor Recreational Soccer championship. In addition to the team sports, many graduate students and faculty demonstrated their athletic skills at the fall picnic soccer and volleyball games. .

Keeping in contact with our graduates is one of the many enjoyable aspects of being Director of Graduate Studies. Many of you have e-mailed throughout the year and a few have been able to visit campus. Please keep in touch and I wish you all the best in 2013.

-Helen Tauchen

### Graduate Student News

- Anthony Diercks received the 2012 Tanner Award for Excellence in Undergraduate Teaching by a Graduate Teaching Assistant. Anthony was one of five graduate students to receive the \$5000 award. The award was given to him at halftime of a UNC basketball game.
- **Forrest Spence** was recognized by the University in April 2011 for his teaching excellence. Forrest was one of six teaching assistants to win a \$1000 award.
- **Christopher J. Cronin** was selected to participate in the Western Economic Association International Graduate Student Dissertation Workshop, a 2-day event that was held in San Francisco.
- Leonardo Morales was selected for the 1st Annual Summer School on Socioeconomic Inequality at the University of Chicago, which was led by Jim Heckman and Steven Durlauf.
- **Sofoklis Goulas**, a second year graduate student, was awarded the Karelias Fellowship from the Karelias Foundation in Greece. The award will cover his PhD studies in the academic year 2012-13.

### **2012 Entering Class**

**Robert Ackerman**, B.A. University of Maryland

**Jose Alfonso Campillo-Garcia**, B.A. Universidad de Guanajuato

**Byong Kwun Choi**, B.A. Korea University

Matthew Forsstrom, B.A. Gordon College

**Rizky Hermanto**, B.S. University of Indonesia

**Keith Johnson**, B.S. Bentley University **Rayan Joneydi**, B.A. Universite Paris-Sorbonne

**Ziqian Ju**, B.A. and B.S. Peking University

Ryan Leary, B.A. Assumption College Blanca Berenice Martinez, B.A. Universidad de Guanajuato

**Marcela Parada Contzen**, B.A. and Professional Degree Universidad de Concepcion

**Alexander Pearson**, B.S. University of Houston

**Stephen Raymond**, B.S. Duke University

**Pornpun Ruankong**, B.A. Thammasat University

Michael Smalenberger, B.S. Embry-Riddle Aeronautical University, B.A. Northeastern Illinois University, MBA Eastern New Mexico University

**Uyen Tran**, B.S. Arizona State University

**Burcu Ulkur**, B.S. Baskent University, M.S. Middle East Technical University **Nilay Unsal**, B.A. and M.A. Ankara University

**David Wright**, B.S. Auburn University **Teresa Zhou**, B.A. Rhodes College

### 2011-2012 Master's Recipients

Umut Tuysuzoglu Ezequiel Cabezon Jiang Gao Forrest Spence Olga Belskaya Aleksandr Andreev Kathleen Miller Ruchita Manghnani

Dae Yong Kim Anne Macfarlane Benjamin Johnson

### 2011-2012 Ph.D. Recipients and Placements

**Wonchul Hwang,** "Essays on Antitrust Issues" (Advisor: Gary Biglaiser); Korea Fair Trade Commission

**Amos C. Peters,** "An Examination of Exchange Rate Policy in Emerging Market Economies" (Advisor: Stanley Black); University of Cape Town, South Africa

**Mustafa A. Attar**, "Entrepreneurship, Knowledge, and the Industrial Revolution" (Advisor: Lutz Hendricks); Hacettepe University

**David L. Buehler,** "Enlargement of Preferential Trade Areas: Essays on Trade Displacement" (Advisor: Alfred Field, Jr); Penn State Harrisburg

**Russell E. Triplett,** "Protection for Sale with Natural Barriers to Trade" (Advisor: Patrick Conway); Stetson University

**Brian Jenkins**, "The Bank Lending Channel and Monetary Policy Transmission When Banks are Risk Averse" (Advisor: Michael Salemi); University of Montana

**Rebecca Marsh Glawtschew**, "Essays on Statistical Discrimination in a Dynamic Framework" (Advisor: Peter Norman); Kennesaw State University

**Timothy John Moore,** "Applications of Game Theory to Topics in Political Economy" (Advisor: Peter Norman); Deloitte, Los Angeles

**Teerawut Sripinit**, "How Much Do We Understand About Asymmetric Effects of Monetary Policy?" (Advisor: Richard Froyen); Thammasat University

**Jeremy A. Cook,** "Teacher Sorting in North Carolina Public Schools" (Advisor: Donna Gilleskie); Wheaton College

**Mustafa Haluk Guler,** "Housing Wealth Effect and Monetary Transmission Mechanism in Turkey" (Advisor: Richard Froyen); Central Bank of Turkey

**Fernando Daniel Chague**, "Conditional Beta: Asymmetric Response to Good and Bad News (Advisor: Eric Ghysels); post-doc at the University of Sao Paulo

**Ozge Savascin**, "Endogenous Clustering Factor Approach to Macroeconomics" (Advisor: Neville Francis); Freddie Mac

## Undergraduate News



William R. Parke
Director, Undergraduate Studies

As has happened in the past, bad news about the economy appears to be driving an interest in the number of students that want to major in economics. The Department now has over 1000 economics majors and, in terms of the number of students, economics now ranks as the third largest major in the College of Arts and Sciences.

The importance of economics in a broad range of areas is, of course, fundamental to our discipline, and the UNC Department of Economics is expanding our range in an important direction. We recently hired Professor Andrew Yates in an appointment joint with the Curriculum for the Environment and Ecology. Professor Yates specializes in economic analysis of environmental issues, and his appointment will let us offer a new course titled "Environmental Economic Theory" starting in Spring 2013. This new course is "A rigorous economic analysis of environmental issues, with particular emphasis on the problem of designing appropriate institutions and regulations under private information and the interaction between economic and ecological systems. Topics include emission fees and marketable permits, pollution models, carbon regulation, and ecosystem service markets."

We are also addressing one of the most critical macroeconomic issues affecting the global economic outlook. In Spring 2013, Bruno Dellago, a visiting professor from the University of Trento, Italy, and Stanley Black, Professor Emeritus from UNC, will both offer ECON 461 "European Economic Integration."

Jobs are, of course, number one on the list of our students' concerns.

If you have a job announcement or internship opportunity that you would like to have distributed among our majors, you can send it to parke@email.unc.edu.

If you are an alumnus, we would also love to hear from you via http://www.unc.edu/depts/econ/alumni/feedback.htm.

### Mayo Undergraduate Research Fund

Undergraduate research funds are available through the Herbert B. Mayo Undergraduate Research Fund through the Arts and Sciences Foundation.

### **Undergraduate Prize**

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

#### 2012 HONORS STUDENTS

Under the direction of Professor Richard Froyen and their individual advisors, fifteen of our majors successfully completed the Senior Honors Program this past year. **Emily Carol Anderson** received the award for the Best Honors Thesis. Emily's advisor was Boone Turchi.

#### **Highest Honors**

Emily Carol Anderson (Advisor: Boone Turchi)
Valerie Amanda Hansen (Advisor: Donna Gilleskie)
Benjamin Thomas Leyden (Advisor: R. Vijay Krishna)
Russell James Westcott Martin (Advisor: Michael Aguilar)

#### Honors

Weishan Gu (Advisor: Stanley W. Black)
Yuwa Harimoto (Advisor: Patrick J. Conway)
Yuen Ho (Advisor: Geetha Vaidyanathan)
Jamie Lynn Isetts (Advisor: John Stewart)
Emil Mayev (Advisor: Geetha Vaidyanathan)
Andrew Alden Owens (Advisor: William R. Parke)
Cameron David Parker (Advisor: Jonathan Hill)
Thomas Robert Shane (Advisor: Neville Francis)
Drew Abraham Simel (Advisor: David Guilkey)
Zachary M. Smith (Advisor: Maryann Feldman)
Yang Yang (Advisor: John Akin)

## Faculty and Staff News

- The Department wishes to recognize the promotion of Jonathan Hill and Brian McManus to Associate Professor.
- The National Economic Association (NEA) announced William A. ("Sandy") Darity, Jr. as the Samuel Z. Westerfield Award recipient. The Westerfield award is the NEA's highest distinction. It recognizes a Black economist who has distinguished himself or herself through scholarly research, professional achievement, contributions to government, and/or service to the community. Professor Emeritus Darity received the award during the ASSA/NEA annual conference in Chicago in January 2012.
- Donna Gilleskie was elected Vice President of the Southern Economic Association for 2012-2013. Professor Gilleskie was sworn into her new office in November 2012 at

the SEA annual business meeting which was held in New Orleans.

- Mike Salemi received Kenneth G. Elzinga Distinguished Teaching Award from the Southern Economics Association. Professor Emeritus Salemi received the award in November 2012 at the SEA's annual meeting in New Orleans.
- Nathan Letts has joined the Economics faculty as an adjunct professor to lecture on intellectual property. He will share his research and professional experience with students in the department and the Minor in Entrepreneurship.
- Jordi Mondria resigned and returned to the University of Toronto as an Assistant Professor in July 2012.
- Douglas passed George W. away in February after a long illness. Dr. Douglas served in the Department of Economics from 1965-1976.

- The Department wishes to welcome Kenlyn Merritt (Assistant to Director of Graduate Studies) and Cindy Wunder (Receptionist) as part of the Department's staff.
- Mathilde Verdier was named the Program Assistant for Administration for the Minor in Entrepreneurship. She will be assisting with the development of Economics 125 and day-today business.
- The Department wishes the best to Nancy Kocher (Receptionist) on her retirement. Thank you for your many years of service!
- Phyllis Hoffman (Assistant to Director of Graduate Studies) resigned from her position to take a position as an Administrative Support Associate in the Political Science and Public Affairs Department at Western Carolina University.

### Carolina Economics Club

The 2011-2012 academic year was quite a success for the Carolina Economics Club. In the Fall semester, we hosted a number of exciting events which included lectures and panel discussions. In mid-October, the Club hosted Congressman David Price, the U.S. Representative for North Carolina's 4th congressional district, who has served since 1997 and previously from 1987 to 1995, and who serves on the Appropriations Committee. Congressman Price spoke to a large, diverse crowd of students about the politics of fiscal policy, the debt ceiling, and ever-increasing national spending. The Club hosted a panel discussion on the European debt crisis in early November, just as the crisis was coming to a head. Panelists included Professors Geetha Vaidyanathan (Economics, and our very own faculty advisor), Chip Snively (Kenan-Flagler Business School), Karl Smith (School of Government), and Thomas Oatley (Political Science). The professors first provided an overview of the causes of the debt crisis followed by a Q&A session that

revealed contrasting views on potential ramifications of and solutions for

In the Spring semester, the Club hosted a number of marquee events. In March, the Club co-hosted Herman Cain, former chairman of the Federal Reserve Bank of Kansas City Omaha Branch and presidential candidate. He spoke of his 9-9-9 tax plan, one that would replace the current tax code with a 9-percent business transactions tax, a 9-percent personal income tax, and a 9-percent federal sales tax. Also in March, the Club hosted James Surowiecki, an alumnus of UNC-Chapel Hill and a current staff writer at The New Yorker, where he writes a regular column on business and finance called "The Financial Page". Mr. Surowiecki spoke about his book, The Wisdom of Crowds, and how to harness the collective wisdom for competitive advantage. see Carolina Economics Club, page 18



Professor Salemi congratulates Bevin Gleason, winner of the "Trading for Change" investment challenge.'

## New Faculty



Professor Andrew (Andy) Yates will join our department in January 2013 at the rank of Assistant Professor. With his addition, the Department will be able to offer a 400-level course on environmental economics. As part of his appointment, he will also serve on the faculty for the Curriculum for Environment and Ecology.

Professor Yates brings with him many years of teaching experience and research activity in environmental economics and pollution permit markets. One of his recent projects analyzes the optimal scale of nitrogen emission trading in North Carolina's Neuse River System. He has published articles in a variety of economics journals including the Journal of Economic Theory, the Review of Economics and Statistics, the Journal of Environmental Economic Theory. He is currently the co-editor of the Journal of Environmental Economics and Management.

He has served on the faculty at Tulane, Wake Forest, Duke, and most recently the University of Richmond, where he was an Associate Professor of Economics in the Robins School of Business.

Professor Yates holds a Ph.D. from Stanford University's Engineering Economic Systems Department and an undergraduate degree in Systems Science and Engineering from Washington University. He and his family have resided in Chapel Hill for 7 years and his wife, Ilene Speizer, is a faculty member in UNC Gillings School of Global Public Health. Professor Yates enjoys cycling and has done several tours across the United States and throughout Europe.



Toan Phan joined the Department as an Assistant Professor in July 2012 and immediately upon completion of his Ph.D. studies at Northwestern University. An international macro economist, Professor Phan's research interests can best be described as a combination of macroeconomics and

politics with a focus on how politics influences the world economy. In his dissertation studies, he looked at issues surrounding the issuance of sovereign debt. His current research includes a closer look at the politics of youth unemployment in the Arab Spring and how politics influences climate change. In an effort to promote more research and discussion across campus on these and similar issues, Professor Phan has formed an interdisciplinary group of faculty members from the Kenan-Flagler Business School, the Department of Economics, and the Department of Political Science. His research is available at http://toanphan. org/research.

Professor Phan also has an interest in entrepreneurship and he is a founding member of Earth Team, an NGO that uses innovations in the fight against poverty (http://earth-team.org/). Their work includes the distribution of clean water in western Africa, microfinance initiatives for homeless people, and the distribution of folic acid supplements in developing nations via existing microfinance networks.

A native of Vietnam, Professor Phan earned his undergraduate degree from Bucknell University where he majored in math and minored in art. His hobbies include painting, drawing, music and traveling. He enjoys backpack traveling with a guitar to sing and dance with local children and musicians.



Ryan Burk's ferocious defense keeps the Blue Devils out of the lane.

## Tar Heels top Duke in Basketball 4 Times

No, it wasn't Roy's Boys who took down our biggest rival. This time it was the graduate students in the Department of Economics who got the best of their counterparts from Duke in a 5 game series. The event took place on August 16th in Woolen Gymnasium. Touted as the "greatest economic department basketball clash of all time" the Tar Heels were led by Anthony Diercks, Steve Raymond, and Rodman-like rebounder, Forrest Spence.

## Alumni News

- Carter Craft (B.A. 1993 and M.A. of Urban Planning (NYU) 1998) is now director of Long Range Planning at the Urban Assembly Harbor School, a New York City maritime public school.
- Michael Darden (Ph.D. 2011) is an Assistant Professor at Tulane University. He won the 2012 Student Paper Award from the American Society of Health Economists (ASHE), which is one of our most prestigious professional organizations in health economics. His paper was entitled "Smoking, Expectations, and Health: A Dynamic Stochastic Model of Lifetime Smoking."
- Kellin Stanfield (Ph.D. 2008), an Assistant Professor of Economics and Management at DePauw University recently had two papers published in the Journal of Economic Issues (June 2010 and June 2011). He also presented papers at the annual meetings of the Association for Evolutionary Economics in 2009, 2010, and 2011 as well the annual meetings of the Association for Social Economics in 2008, 2009, and 2011. His paper proposal was selected for the AFEE "Paul Davidson Senior Scholars Interactive Session on Deep Recession, Debt Crisis, Financial Instability and Policy".
- Bob Williams (Ph.D. 1985) has taught economics at Guilford College for the past 25 years. He recently published a book entitled Greening the Economy: Integrating Economics and Ecology to Make Effective Change (Routledge 2010). He is hard at work on a new book, tentatively titled Wealth Privilege. In addition to teaching his classes, he serves as a co-facilitator in the weekend long workshops called Understanding Racism: Building Community that is part of the college's anti-racism agenda. He still plays basketball and every so often one of his shots goes in.

### Young Alumnus Remembered

Kirk Urso (B.A. 2011) passed away on August 5, 2012 in Columbus, Ohio. He served as captain for the 2011 NCAA National Champion men's soccer team and was named the 2010 ACC Men's Soccer Academic Athlete of the Year.

Upon graduation Kirk was picked by the Columbus Crew in the Major League Soccer Supplemental draft, where he started five of the first six games of his career. UNC soccer coach, Carlos Somoano remembers him as "an exceptional human being .... While he helped us win many games and ultimately a championship on the pitch, to us he was an inspirational student, teammate, friend, leader, and our captain. He truly was a model student-athlete."

Senior Lecturer, Rita Balaban, shared some of her memories of Urso. "Kirk was a student in my Economics of Sports class during the Fall 2011 semester. He made valuable and insightful contributions to our class discussions and was well respected by his classmates. I was really impressed by his ability to balance his academics and athletics commitment. Like many of my colleagues, I was devastated when I heard that Kirk had passed. I hope his family and friends can find peace in knowing that he made a memorable impact all over this campus."



Kirk Urso

### 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.

## Economics Research at Carolina

Faculty research continues to be an integral part of Department activity and is critical to our Department mission within a major research university. In this year's newsletter we asked, Professor Brian McManus to share his research with our readers. Professor McManus joined the Department in 2008 and was recently promoted to Associate Professor.



Brian McManus

My research is primarily in empirical microeconomics. While my main research field is industrial organization (IO), public and health economics also figure prominently in my work. A common theme across my research is that I generally focus on strategic choices made by consumers and firms. Some of the topics in my recent work include: how buyers and sellers respond to or use charitable donations in augmenting standard market transactions, how firms' and patients' choices affect outcomes in healthcare markets, and how price discrimination affects consumers. While working within these topics, I have collected or generated new data for many of the empirical analyses. Data are generally very scarce for IO research, so introducing new data is a central contribution of my research activities.

In recent years, my main research area has been on the impact of charity in traditional transactions between consumers and firms. While most of my research in this area is empirical, my first paper on the topic (with Maxim Engers, International Economic Review 2007) is a theoretical study of equilibrium bidding and revenue in auctions where bidders care about the amount of revenue raised as well as winning the auction. This may occur, for example, when a school or nonprofit organization holds an auction as a fundraising event. I find that relative to standard auctions, charity auction revenue is especially sensitive to differences in bidding rules, and the auctions with the greatest revenue are those that emphasize opportunities for one bidder to affect another bidder's payment.

My next projects in this area marked the beginning of my empirical work using data from eBay. Along with its large volume of conventional sales, eBay offers a charity program called Giving Works in which sellers can donate 10% to 100% of a sale's revenue to a charity of their choosing. Dan Elfenbein and I collected data from eBay's website so we could compare bidding behavior in charity and noncharity auctions, and also comment on the general prospects for firms' charity programs. In our main paper from this data opportunity (Elfenbein and McManus, American Economic Journal: Economic Policy 2010), we analyze a dataset of matched charity and non-charity auctions of otherwiseidentical items, and we find that consumers are willing to pay a modest but statistically significant premium for charity items. This premium, however, is not sufficiently large to allow sellers who donate a fraction of their revenue to profit, on net, from the program.

Other recent work suggests that consumers' responses to charity in markets can be quite complex (McManus and Bennet, Journal of Public Economics 2011). This research reports the results from a field experiment that a co-author and I ran at the online store of a large non-profit organization (NPO). In the experiment we varied the size of a donation that an anonymous outside group (actually us) would pay to the NPO when a consumer's purchase met a dollar value threshold. To our surprise, consumers' responses did not increase in the value of the outside donation. While large donations lead consumers to increase their purchases in a way that suggested they were paying sharp attention to the terms of our experimental offer, small donations were effective in modestly boosting purchases regardless of whether the terms of our offer mattered for the consumers' choices. These results suggest a puzzle in how difficult it may be to control consumers' subjective responses to charity offers by firms.

In my most recent work (Elfenbein, Fisman, and McManus, Review of Economic Studies 2012), I have continued studying the tie between charity and signaling. To conduct the analysis my coauthors and I worked directly with eBay to obtain a large data extract that contains instances in which a single eBay seller offers the same product with and without a charity pledge. (For example, this may happen when a seller has multiple units of the same good to sell.) Within these matched clusters of products, we find substantial variation across sellers in the size of the charity premium, with low-experience sellers receiving the largest benefits. We interpret this as indicating that charity pledges can signal seller quality or trustworthiness to consumers, and this signal is most useful when a seller

does not have a lengthy record of successful past transactions. To further support this signaling interpretation, we present evidence that the size of the charity premium, while positive, is small enough to prevent opportunistic sellers from offering charity items, and moreover the charity signal is informative in that highly charitable sellers are significantly less likely to receive complaints from their customers. Looking beyond eBay, our results may explain what types of firms are most likely to invest in charity programs.

I have also conducted research on healthcare markets. These studies are generally tied to my IO interests through a focus on the consequences of individual healthcare firms' choices. My work on healthcare currently covers two areas of medical care. The first medical area is the treatment of drug and alcohol abuse. While there is considerable research and debate on how to model addicts' behaviors. my objective has been to demonstrate that there is room for research progress in this health area by studying the more conventional decisions on the treatment side of the market. To facilitate the study of individual firms' strategic choices across a variety of markets, I have focused on the localized markets for Outpatient Substance Abuse Treatment (OSAT) in rural US counties. In this paper (with Cohen and Freeborn, International Economic Review, forthcoming) we examine whether public provision of OSAT crowds-out private treatment. We execute this study using recentlydeveloped techniques for estimating discrete games with multiple equilibria, which allow us to describe how frequently a public OSAT clinic could be removed from a market with and without spurring a private clinic to provide treatment in the public clinic's absence. We find that observed public clinics often crowd-out private clinics. but there are markets with certain demographic characteristics (e.g. low

median income) where a public clinic is necessary for any treatment to be provided.

The second medical area I have studied is infertility treatment. Together with co-authors, I have collected data on In Vitro Fertilization (IVF) clinics in the U.S. Although IVF is the most technologically advanced infertility treatment available, it is an expensive procedure that is more likely to fail than succeed, and its outcome is determined in part by choices the patients and their doctors make within treatment. Bart Hamilton and I (Health Economics 2011) estimate the impact of mandated insurance coverage on women's use of IVF, their choices within treatment, and treatment outcomes. Insurance coverage has the benefit of expanding access to IVF while also tempering patients' incentive to choose an aggressive course of treatment that can increase the chance of successful IVF but at the expense of a potentially dangerous high-order pregnancy. Together with Juan Pantano, Bart Hamilton and I are continuing our research on IVF with an analysis of individual treatment histories of 1700 women who received IVF at Washington University's fertility clinic. These detailed data allow us to study how individual women's IVF treatment choices vary with their demographics, fertility characteristics, and personal treatment histories. Our opportunity to work with patient-level data is unique among economic studies of IVF choices. We are currently constructing an estimable dynamic choice model that will allow us to predict how women's choices and birth outcomes would be affected by changes to insurance policy, treatment practices, and technological progress.

Price discrimination is the final area in which I have completed research (see RAND Journal of Economics 2007). In this work I estimate consumers' utility from a variety of coffee products at specialty shops such as Starbucks, and I use these estimates

together with cost data to calculate the efficiency properties of market allocations under the shops' nonlinear pricing schedules. The allocations of products to consumers, a central aspect of nonlinear pricing theory, had not yet been tested empirically because of data limitations. The theory predicts that the highest-demand consumers will receive products that are "just right" in size or quality (despite a high price), while lower-demand consumers opt to purchase products that are too small or too low-quality relative to what they would receive in a competitive market. My results indicate that the allocations fit the theory closely, even in a relatively low-stakes beverage market.

In addition to continuing work in the areas above, I have started projects in new subject areas. For example, together with my co-authors on eBayrelated projects, I am extending my relationship with eBay to study its seller quality certification system. This project extends my past work on the interaction between charity and signaling to incorporate broader topics on information in markets. To encourage use of its marketplace, eBay rewards high-quality sellers with public certificates of their status. My co-authors and I are focusing on how the impact of quality certification varies across markets with different levels of quality risk for consumers, and also how concentrated possession of certifications affects overall market structure, prices, and welfare. Our preliminary results indicate that eBay consumers significantly prefer purchasing from certified sellers, and it is especially valuable for a seller to be certified when there are few other certified sellers offering similar products.

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

## Entrepreneurship Minor News

There's never a dull moment in the Minor in Entrepreneurship. Since last year's update, we've been busy adding new courses, admitting a new class, selecting new Innovation Scholars, and expanding our programming. After another successful summer that sent



students to Beijing, New York, Silicon Valley, and the Triangle, we launched Econ 125: Intro to Entrepreneurship, co-taught by Professor John Akin, Professor Buck Goldstein, and Chancellor Holden Thorp. Continuing momentum for increasing demand for entrepreneurial classes, the Minor has partnered with the Department of Exercise and Sports Science to offer a Sports Entrepreneurship Workshop

starting this spring, bringing the total number of tracks to five.

Our students continue to inspire and amaze us. Ann Johnston, JNO award winner and economics major, co-hosted an event with Google to educate local business owners about social media and promote her startup, Local Ventures. This year's two new Innovation Scholars have settled into life in Carolina Blue and started new projects. First year scholar Andrew Bauer launched firebigbird.com in response to Governor Romney's comments about PBS, ultimately selling hundreds of t-shirts and donating the proceeds to charity.

Likewise, we've seen some exciting developments for the faculty and staff of the Minor. Mathilde Verdier, a distinguished Carolina Alumna with a background in international development, joined the Minor's staff and has played an instrumental role in coordinating the star-studded lineup for the university-wide Econ 125: Intro to Entrepreneurship



class. Julia Grumbles, who teaches in the Minor and hosts the Women in Entrepreneurship group, moved to South Building as the interim Vice Chancellor for Advancement. We are grateful for her continued service to UNC in this new role. Professor Joe DeSimone was called to lead the Kenan Institute for Private Enterprise at the Kenan-Flagler Business School. Joe will continue to teach the Scientific Venture Creation Workshop with Professor Lowry Caudill while fostering entrepreneurship in new ways.

For current news and happenings from the Minor, please visit our website (http://www.unceminor.org/) or follow the Minor in Entrepreneurship on Twitter (@unceminor), Facebook and join our group on LinkedIn.

- Lizzy Hazeltine



## Dennis Whittle Named UNC's Social Entrepreneur-in-Residence



Dennis Whittle

Dennis Whittle is the founder and president of The Whittle Group, which helps people, organizations, and companies break down barriers and invent the future. He is also the Co-Founder of GlobalGiving, the world's leading website that matches donors directly with community-based projects around the world and from 2000-2010 was the CEO. Funding has come from nearly 200,000 individual users as well from the world's most innovative companies and foundations.

Prior to founding GlobalGiving, Dennis worked at the World Bank for 14 years. He co-led the World Bank's Corporate Strategy and Innovation units, which created the Development Marketplace - an open access competition for funding. These Marketplaces have now been replicated in over 50 countries, providing tens of millions of dollars to innovative initiatives generating improved economic, social, and environmental conditions.

He also led a variety of initiatives in the World Bank's Russia program, including housing reform and energy efficiency. Dennis also served as an economist in the World

Bank's Jakarta office. Prior to the World Bank, Dennis worked in the Philippines for USAID and the Asian Development Bank.

Dennis graduated with honors in religious studies from the University of North Carolina - Chapel Hill and did his graduate work in development studies and economics at Princeton University. Dennis also completed the Advanced Management Program at Harvard Business School.

By Mathilde Verdier

## New Course Offering in the E-Minor: Introduction to Entrepreneurship



This fall, the Department of Economics offered a new unique lecture course "Introduction to Entrepreneurship," designed as an immersion to entrepreneurial thinking.

Co-taught by Chancellor Holden Thorp, UNC's Entrepreneur-in-Residence Buck Goldstein and Former Economics Department Chairman John Akin, its purpose: to introduce students to a different way of looking at the world by offering students a chance to explore what it means to be an entrepreneur. The creation of the course was in part a reaction to high demand for spots in the Minor in Entrepreneurship, housed in the Department. It reflected an effort

by administrators to expose a large number of students across different fields of study to the principles of innovation and entrepreneurship.

Offered to 400 undergraduate students from across all majors and years, this fall course took the next step in the realization of Innovate@Carolina, preparing graduates for an international economy that requires an entrepreneurial mindset, regardless of what students' career choices may be.

In line with the theme of the course, it has proven to be innovative in almost every way and is unlike any other in higher

education. With a non-traditional format and seven months of planning, the course has represented an innovation in itself. Co-instructors deployed an array of new teaching techniques and invited high-profiled expert guest lecturers from UNC and across the nation to show students the value of recognizing and capitalizing on opportunities.

The course used advanced technologies to facilitate active engagement – technologies never used before at the university. Students were encouraged to think *see E-Minor*, *page 18* 



# A Legacy of Gratitude: Alumnus Honors Father, Economics Department with Memorial Fund



Matthew and Paige Guest with their children, Caroline, Luke, Anna Claire and Maeve.

For Matthew Guest ('97 AB), establishing a fund in the department of economics was about more than expressing gratitude for the program's positive impact on his education and career. It was a way for him to honor the memory of his father and the important role he played in his life.

Guest and his wife, Paige McArthur Guest ('97 ABED), recently created the Michael Kurt Guest Memorial Fund for Excellence in Economics. The expendable fund's purpose is to provide support for faculty recruitment and retention, strategic priorities and other pressing needs as determined by the chair.

"My father had always spoken to me about the social sciences being a great foundation for his career," said Guest, who chose an economics major at UNC based on his father's advice. "We had that shared interest, and I felt like supporting the department was a good way for me to target a department that had signifi-

cance for me and to say 'thank you' for the positive impact the department had on my own professional career."

The fund also honors the role Guest's parents played in bringing him to Carolina. An Indiana native, he applied to Carolina after hearing about the university from family friends whose children had attended. Guest was accepted for admission at Carolina and Indiana University, but in-state tuition and a scholarship made Indiana the cost-effective choice. His parents, however, knew how badly he wanted to be a Tar Heel, and his mother mailed in his acceptance form to Carolina without telling him. As Guest describes it, "They made the sacrifice to send me to the school I wanted to attend."

At Carolina, Guest was a member of Lambda Chi Alpha Fraternity and served on the staff of Cellar Door, the university's undergraduate literary magazine. He also met his future wife, Paige, a Chapel Hill native. After graduating in 1997 with honors and highest distinction with degrees in economics and international studies, Guest attended Yale Law School. Today, he is a partner in Wachtell Lipton Rosen & Katz, a leading business law firm based in New York City. Paige, who graduated from the UNC School of Education in 1997 with a degree in child development and family studies, worked as a teacher in Charlotte, New Haven and New York City and now focuses on raising their four young children.

"My experience as an economics major, with its emphasis on breaking down how the global economy and financial markets work, has had a great impact on my mergers and acquisitions practice," Guest said. "A well-rounded liberal arts education has been an essential part of my professional success."

Guest's own career mirrored his father's. A social sciences major at Indiana University, Michael Guest earned his law degree from the Indiana University School of Law. Although Michael died in 1999, he did see his son graduate from UNC and attended Matthew and Paige's wedding in Chapel Hill in 1998.

The Guest family now lives in New Jersey, but retains strong ties to Chapel Hill. Passionate Tar Heel fans, Matthew and Paige hold football season tickets and are in the process of buying a home in Chapel Hill. Their four children, Caroline, Luke, Anna Claire and Maeve, ranging in age from 10 years old to 15 months old, are being groomed as future Tar Heels.

Guest looks forward to seeing the fund's impact on economics at Carolina, and he is grateful to have the opportunity to honor his father in this way.

"I think the fund is a fitting tribute to my father because he was instrumental in helping me select economics as a course of study, not to mention ending up at Carolina in the first place," Guest said. "Looking back now I couldn't imagine going anywhere else."

By Joanna Cardwell

### **Federal Reserve Challenge**

The 2011 Fed Challenge team accomplished an unprecedented feat for UNC-CH – making it to the National competition in Washington, D.C. The victory in the Charlotte Branch was the fifth year in a row, and the team once again performed amazingly in the Richmond district competition.

The team advancing to the nationals included Ryan Delgado, Sam Grote, Russell Martin, Sean Myers, Nick Nohling, and captain Andrew Owens. Support was provided by Gabby Tan, who is this year's captain. The national competition was held in the Federal Reserve Board chambers where the FOMC meets. The competition was preceded by a photo opportunity with Chairman Bernanke, and a luncheon with Board of Governors member and UNC alumnus Elizabeth Duke.

The newfound notoriety of the team on campus has expanded its ranks considerably. The spring semester following the competition was filled with new recruits, each vying for a spot on the presentation team. 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.



UNC Fed Challenge members and Professor Aguilar pose with Chairman Bernanke at the National Competition.

## Phi Beta Kappa 2011/2012

In 2011-2012, the quality of our students remained high and 24 were inducted into Phi Beta Kappa.

### **FALL 2011**

David Alexander Dunlap
Lucy Fallon Emerson
James Rountree Godwin
Jessica Lauren Gregory
Yuwa Harimoto
Jay Hyung-Jae Im
Logan Chambers Mauney
Sean Alexander Myers
Eugenia Isabel Navarro
Davis Frederick Phillips
Emily Sara Rubin
Joel Semakula

### **SPRING 2012**

Morgan Bolling
Shabnam Emdadi
Michelle Gregory
Gregory Grissom
Samuel Kenneth Hughes
George Lawson Kuehnert
April Lee
Viet Khang Quoc Nguyen
Margaret Jane Patterson
David Andrew Shackelford
Zachary Smith
Carolyn Linnea Treasure

### **Omicron Delta Epsilon**

ODE was led this past year by President Aaron Kearsley and faculty advisor Professor William R. Parke. Membership is open to outstanding junior and senior Economics majors and Economics graduate students. The annual induction ceremony was held in April. The 2011-2012 inductees included:

### 2012 Inductees

Eliza Grace Allen
Brett Barnard
Joshua Burrows
Veronica Clark
Leah Rose Downey
William Davis Dunlap
Jason Allen Dunn
Andrew David Evans
David Foltz
Michelle Gregory
Conor Howells
Samuel Hughes

Rongjia (Tim) Jiang
Amelia Lane Johnson
Heather Kagan
Hilton Kappaun
Coby Ryan Kavanaugh
April Lee
James A. Morro
Eugenia Navarro
Viet Khang Quoc Nguyen
Stephen Padgett
Shrey Patel

Davis Lee Phanthalack
Benjamin Price
James Patrick Ryan
Joel Katende Semakula
Kevin M. Swift
Madelyn Swift
Alexis Sydow
Riha Vaidya
Taylor Joseph Watt
Yang Yang
Tianying Yu

# Economics Alumna Kayce King Gives Back to Department. Fund Supports Faculty, Students and Immediate Needs.



Kayce King

When Kayce King '86 looks back at how she came to manage money for some of America's wealthiest families, the path stretches back to the UNC economics department.

Majoring in economics gave King a firm grounding in economics and finance that became the axis of her private banking and wealth management career. King, who has a second major in international studies, is now a director of Abbot Downing in Winston-Salem, a Wells Fargo business that provides comprehensive wealth management services for individuals and families with investable assets of at least \$50 million or a net worth of \$100 million.

"I feel like a lot of my success in my career comes from being a student in the economics department," King said. "Knowing how economies around the world work helps me talk to people about managing their money."

To give back to her alma mater, King created the Kayce King Fund for Excellence in the Department of Economics in 2010, an "expendable" fund to be spent at the dis-

cretion of the department chairman.

The fund has been a boon for faculty travel and recruitment. Last year, instructor Lutz Hendricks traveled to Belgium to present a paper on the economics of dropping out of college, and undergraduate studies director Bill Parke attended another national conference to present a paper and to interview candidates for assistant professor positions. Two more professors will use the funds for conference travel again this year.

Faculty also found an innovative way to use the King funds last year when instructor Mike Aguilar had a car accident and was unable to get to class. They used the King funds to purchase audio and video equipment so that he could teach from home using the technology. Conway called Aguilar's improvised teaching methods "quite effective" and said it saved students the disruption of having a substitute professor jump in two-thirds of the way through the semester.

King says she trusts the department to spend the money wisely, with no strings attached.

"We really appreciate Kayce King for providing these expendable resources," Conway said. "It provides us with a great deal of flexibility in enrichment opportunities for our faculty members."

King is no stranger to giving to UNC. Before setting up the fund in the economics department, she created the Kayce King First Year Seminar Enhancement Fund, which allows instructors to take students on trips that relate to their courses. And as a senior in 1986, King—then the senior class treasurer—and other class officers launched the William C. Friday / Class of 1986 Award for Excellence in Teaching and the Class of 1986 College Fellows Fund as their class gift.

She fondly remembers the class officers meeting with then-President Bill Friday to describe the fund they planned to create in his honor. Twenty-five years later, at the class reunion in the fall of 2011, Friday joined one of their reunion gatherings. He remembered meeting several of them so long ago.

But a meeting with former economics department chairman John Akin got King thinking in a new direction. She decided to focus her future giving on the economics department.

"I wanted the economics department to be as strong as it could possibly be," she said.

King encourages students and alumni to think back on what part of Carolina is most important to them and focus their giving there.

"It's important that we realize that although UNC is a public university, it needs private funding," she said. "If we want it to continue to be a university that makes us proud, we've got to help."

## Bhagavan Teaching Award Endowed



Vijay Bhagavan

The Department of Economics is very pleased to announce the endowment of the Bhagavan Teaching Award by Vijay's parents, Vrittamani and Anuradha Bhagavan. The award, which has been supported by the Bhagavans since their son's untimely death in 1996 while working on his graduate studies at UNC, is given annually to an outstanding teaching assistant in introductory economics. The endowment ensures that the Department can fund the award for many years to come.

Associate Professor Boone Turchi, who regularly teaches ECON 101 and for whom Vijay once served as a teaching assistant, presents the award at our Department's annual award ceremony. Prior to the announcement of the award winner, Professor Turchi spends a few minutes sharing his thoughts on this

beloved graduate student. He regularly references Vijay's dedication to his students, his passion for teaching, and his general enthusiasm for life.

"Vijay's premature passing was a shock to us all in the Department and to the many undergraduates he shepherded through the rigors of introductory economics. I remember very well the significant number of undergraduate students who attended his memorial service in the Department, some of whom hadn't actually been in his classes for over a year. Vijay's parents' endowment of the teaching assistant award will ensure that his name and work remain a part of the Economics Department for years to come."

The recipient receives a generous cash stipend and the winner's name is engraved on a plaque that resides in the Department's main office.

### 2011-12 Teaching Awards



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

Neville Francis



Vijay Bhagavan Award for the Outstanding Econ 101 Teaching Assistant:

Laura Jackson



Excellence in Undergraduate Teaching:

Jeremy
Petranka



Best TA in a Graduate Level Course: Steven Goldberger



Award for Outstanding TA Instructor in Undergraduate Course: Chris Cronin

### Econ Alumnus Supports Excellence in Economics Through Recruiting and Giving



Brian and Kate Worrell

Brian Worrell '92, an economics major originally from Lake Waccamaw, N.C., attributes much of his success in business to the critical thinking skills he learned in his economics courses at Carolina.

"The liberal arts approach challenged me to think differently, to be able to analyze situations and problems and to ask informed questions," Worrell said. "While I also learned technical skills in many of my classes at UNC, the most important thing I leaned was how to think."

Worrell and his wife recently established the Brian and Kate Worrell Family Fund for Excellence in Economics with \$120,000 in endowed and expendable gifts. The purpose of the fund is to provide the department chair support that can be used for a variety of purposes, including research funding for faculty and students, travel expenses, graduate stipends and other pressing needs as they arise.

"I would like to see the department of economics remain

strong and competitive," Worrell said. "My hope is that this fund will help the department continue to recruit top faculty and students and provide what they need to excel."

Worrell is vice president for corporate financial planning and analysis for General Electric Company (GE), where he has worked since graduating from UNC 20 years ago. He joined the company in their financial management training program and has worked in finance in a number of different divisions within the company, including appliances, oil and gas and healthcare.

Having worked on five continents for GE, Worrell has developed a well-rounded global perspective on business and finance and has developed professionally as the company has grown. Worrell and his wife Kate, whom he met while working in England, currently live with their three children in Fairfield, Conn.

While a student at UNC, Worrell completed an honors thesis in economics on the topic of the merger of Piedmont Airlines and U.S. Airways in 1989. His thesis supervisor was Rachel Willis, now a professor in American studies and adjunct professor in economics.

Since leaving Carolina, Worrell has been actively involved in recruiting UNC students to GE.

"We've been able to increase the number of Carolina students hired each year at GE from four in 2006 to 54 in 2012," Worrell said. UNC is now designated as one of 40 U.S. GE "Executive Schools," which are targeted for hiring students who have great executive potential.

"UNC students are attractive to recruiters because of the leadership opportunities they have on campus and because of the liberal arts emphasis that encourages students to think strategically and to probe and ask questions," Worrell said. "Specific technical skills, while important, are relatively easy to teach on the job. But the critical thinking skills are more important and harder to teach."

Worrell noted that today's UNC students are different from those of 20 years ago in that digital communications have broken down a lot of the barriers that used to exist in the world of business.

"Students today are much more likely to contact a company executive directly through email, rather than working through channels," Worrell said. "In addition, today's graduates have more skills in harnessing the power of data and information that have become more readily available in recent years. The ability to use this information creatively and productively is important for any student who wants to succeed."

During a recent campus visit, Worrell served as a guest lecturer for ECON 325, "Introduction to Innovation," a course co-taught by Chancellor Holden Thorp and entrepreneur in residence Buck Goldstein, among others. Worrell also attended a meeting of the Chancellor's Innovation Circle, a group of faculty members, alumni and entrepreneurs committed to developing and implementing a campus-wide innovation strategy.

"I love coming back to Chapel Hill," Worrell said. "A lot has changed in 20 years, but there's no other place like it."

One of Worrell's daughters recently asked if he would pay for her education if she decided to attend Duke University.

"Probably," he responded, "but I'd make you come visit me in Chapel Hill every time I'm in town."

### Economist In Training

I didn't think what I learned in undergraduate economics at UNC would be enough to work on current questions being addressed in the research community. But in my position as a research associate at the Federal Reserve Bank of Richmond, I'm responsible for doing exactly that. The complexity of the problems is much higher, but parallels from 410 and 420 exist, and it seems I learned enough after all.

After graduating from UNC in May 2012, I started work one Monday in June feeling pretty apprehensive. How was I supposed to figure any of this out? My confusion increased when two economists announced they had work for me, gave me a one hour lecture, and handed me a copy of Ljungqvist and Sargent's Recursive Macroeconomic Theory. I was supposed to figure out how to use dynamic programming to solve general equilibrium models in Matlab. This was not what we did in 420.

As I began to figure it all out, I recalled one concept from undergrad—how to decompose the cause and effect in a model. In 423, Professor Aguilar would always draw these causality flow charts to answer questions like, "Through what conduit does an increase in the fed funds rate affect the economy?" The diagram would get quite messy, but practice with that kind of thinking has proved quite useful to me at the Fed. Consider the classic 410 example of the income and substitution effect. People might work more if they're paid more, but they might also be content with their current level of consumption and work less.

In the models I work on, the same things happen, but with a lot more depth. Most importantly, the above example is about analyzing the effect on labor effort due to an exogenous increase in wages. The point of general equilibrium models is that you make exogenous variables endogenous. You explicitly specify how each sector of the economy works, and model the interaction. In many GE models, you can't answer the question, "What happens when wages increase?"

It's not a valid question because wages are an endogenous variable—we need to know why wages increased. Because the different sectors of the economy may react in unpredictable ways, decomposing the effects of a shock in a GE model can be very complicated. A large part of my job, besides coding the initial model, is to test various different scenarios and keep track of what happens.

Working as an RA at the Fed is an ideal job for me. After four years with UNC's Fed Challenge team, it's exciting to be a part of the research process. I get to attend seminars, help out with the less classified parts of pre-FOMC, and work with economists on a variety of macroeconomic topics. I'm continuing my education with courses at nearby VCU and through independent studies—so far I've learned a lot about multivariate statistics, linear algebra, and continuous time stochastic processes. On top of the foundation that I received at Carolina, this extra coursework and my research experience at the Fed are preparing me well for my future PhD studies.



Andrew Owens

I graduated from UNC with a double major in Economics and Political Science and, though the recession continues, I was lucky enough to get a job offer with Analysis Group, an economic consulting firm that frequents the list of the top 10 consulting firms in the country to work for. The management consulting track is one that is well publicized in the economics and business departments at UNC, but economic consulting is not, and I, honestly, had no idea what it entailed. What I discovered throughout the interviews as well as through my first 8 months of working, was that my economics education at UNC was not only pivotal to me getting the offer, but of my success here at the firm.

One of the main focuses of our firm is antitrust litigation, so when I mentioned to my interviewer that I was not only enrolled in Dr. Petranka's Advanced Microeconomics class, which focused on antitrust theory, but that my final research paper was on mergers in the airline industry, he was taken aback. What I know now is that I was conducting economic research that is strikingly similar to what I do daily here at AG. Whether I am analyzing the impact of a cartel in the consumer electronics industry through the projected and actual prices detailed by industry analysts, or the impact on the concentration of the market for computer goods if a certain company is banned from importing or selling a product found to infringe on a patent holder's rights by the International Trade Commission. Further, I would be of no use working on health care cases without the information I learned in Dr. Lich-Tyler's Statistics class, especially when trying to determine the correlation between a certain drug and a perceived side effect. All of this information would be good for naught without the analytical skills I learned in Dr.



Shabnam Emdadi Class of 2012

#### from Carolina Economics Club, page 5

In April, the Club hosted Alan Taylor, Souder Family Professor of Arts and Sciences in the Economics Department at the University of Virginia. Mr. Taylor is also a NBER Research Associate and a Research Fellow of the Center for Economic Policy Research in London. He spoke about the status quo of global finance in the wake of the financial crisis that began in late 2008. Lastly, the Club hosted BB&T Sterling Capital's "Trading For Change" investment competition in which more than 100 participants invested virtual money to compete for prize money for their philanthropy of choice, as well as for themselves. This culminated at the end of the semester at the Club's first Annual Social, an event that provided students the opportunity to network with professors, alumni, and fellow Economics Majors in an informal setting. The event was a huge success, with many professors in attendance, and more than a hundred students stopping by.

In an effort to match, and even transcend, the fantastic year we had, the Club has a number of events planned for the 2012-2013 school year. Plans for this fall include a number of career development workshops organized by Professor Jeremy Petranka, a lecture by Dan Ariely, Professor of Psychology and Behavioral Economics at Duke University, as well as an "Elections panel discussion" to discuss the main economic issues that challenge the two presidential candidates including healthcare, national debt, taxes, and unemployment. The Club has plans for an exciting Spring semester as well. The Club will once again host the Investment competition and the "Second Annual Social", as well as a lecture by the famous Dr. Deirdre McCloskey, Distinguished Professor of Economics, History, English, and Communication University of Illinois at Chicago.

We would like to extend a special thank you to our wonderful faculty advisor, Geetha Vaidyanathan, and to everyone who helped make our events such a success!

-April Lee & Suraj Shah, CEC Co-Presidents

### from **E-Minor**, page 11

critically, answering live questions and engaged directly with guest lecturers outside of the classroom through Google Hangout sessions On Air. Students applied what they learned towards a group project in which they came up with their "Big Idea," competing with the rest of their peers. Each class was introduced by music of different genres selected by Chancellor Thorp and former Chancellor Moeser, connecting music to innovation. Some of the guest lecturers even appeared on screen via videoconference.

The course offers students a unique opportunity to learn directly from the very best entrepreneurial minds: ranging from Michael Porter, the world's leading authority on competitiveness giving a lesson on strategy, to Steve Case, the Founder of AOL sharing his entrepreneurial endeavors, to Wendy Kopp, the Founder of Teach for America discussing the chance to make history, to Dr. Langer introducing scientific entrepreneurship. Students had a chance to explore entrepreneurship from every angle.

#### from Life After Carolina, page 17

Aguilar's Macroeconomics course, which taught me that the laws of physics have a place in economics: every action has a reaction. And as the presidential election inches closer, I would be speechless in our in-office debates without the theories I learned in Dr. Byrns' History of Economic Doctrines class (I can say with confidence that I have impressed the managers in our office when I casually name drop Carl Menger and Arthur Cecil Pigou).

Overall, my UNC Economics education not only gave me the concrete theories and information I showcased to get my job, but it also provided me with the intangible skills for success that I use daily and will undoubtedly continue to use whether I continue in the field of economics or not. My success in analyzing IS/LM curves or creating mathematical models of collusion got me to the interview, but my success in developing critical thinking and analytical skills while doing so pushed me towards the finish line.

To those of you who are lucky (and smart enough) to be pursuing an Economics major at UNC, I give you this advice. Go to Dr. Petranka's career workshop sessions, create long lasting bonds with your amazing professors, and don't ever impose limits on yourself, whether it's on your achievements at UNC or on your career path. As you are soaking up the sun in the quad, contemplating how the Carolina blue sky seems to stretch to eternity, know that it does (I am looking at it as I stare out my office window in D.C.), and so does your potential.

## Yes, I want to give to Economics

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Contact Ishna Hall at 919-843-4885 or ishna.hall@unc.edu if you have any questions.